Public Comment No. 35-NFPA 101-2022 [Global Input]

24.2.8* Grab Bars and Stanchions for Bathtubs, Bathtub-Shower Combinations, Showers and, if Provided, for Water Closets.

Additional Proposed Changes

File Name	Description	Approved
101_A2023_SAF_AAC_CCN_35.pdf	101_Correlating Committee Note No. 35	

Statement of Problem and Substantiation for Public Comment

NOTE: The following CC Note No. 35 appeared in the First Draft Report on First Revision No. 6636. Consider revising heading to read: "Grab Bars and Stanchions for Bathtubs, Bathtub-Shower Combinations, Showers, and Water Closets." The phrase "if provided" is not needed in the heading; inconsistent with remainder of the Code. Headings are not requirements; they only identify subjects.

Related Item

• FR-6636

Submitter Information Verification

Submitter Full Name: CC ON SAF_AAC
Organization: NFPA
Street Address:
City:
State:
Zip:
Submittal Date: Tue Mar 22 09:54:22 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-6643-NFPA 101-2022
Statement: Since the title does not have requirements, the requirements for specific locations are provided in the section below. The change will clarify the title to limit confusion of the following requirements.

Correlating Committee Note No. 35-NFPA 101-2022 [Section No. 24.2.8]

Submitter Information Verification

Committee: SAF-AAC
Submittal Date: Mon Jan 17 16:08:59 EST 2022

Committee Statement and Meeting Notes

Committee Statement: Consider revising heading to read: "Grab Bars and Stanchions for Bathtubs, Bathtub-Shower Combinations, Showers, and Water Closets." The phrase "if provided" is not needed in the heading; inconsistent with remainder of the Code. Headings are not requirements; they only identify subjects.

First Revision No. 6636-NFPA 101-2021 [Section No. 24.2.8]

Ballot Results

✔ **This item has passed ballot**

11 Eligible Voters
1 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Taluba, Jon

Affirmative All

Bush, Kenneth E.
Carson, Wayne G. Chip
Gilyeat, Sharon S.
Harbuck, Stanley C.
Hopper, Howard
Hugo, Jeffrey M.
Lucas, Jeffrey A.
Quiter, James R.
Reiswig, Rodger
Rosenbaum, Eric R.

Public Comment No. 146-NFPA 101-2022 [Section No. 26.3.2.1]

26.3.2.1 Alcohol-Based Hand-Rub Dispensers.

The installation and maintenance of Alcohol-based hand-rub dispensers and the storage of alcohol-based hand rub solutions in accordance with 8.7.3.3 shall be permitted.

Statement of Problem and Substantiation for Public Comment

The editorial revisions to this section are intended to correlate to the language approved in other Chapters of NFPA 101 by the responsible TCs. The change ensures a consistency in the language pointing to Section 8.7.3.3 for the alcohol based hand-rub (ABHR) dispensers and ABHR solution storage requirements.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 143-NFPA 101-2022 [New Section after 11.1.8]	
Public Comment No. 144-NFPA 101-2022 [Section No. 12.4.6]	
Public Comment No. 145-NFPA 101-2022 [Section No. 13.4.6]	
Public Comment No. 147-NFPA 101-2022 [Section No. 28.4.2]	
Public Comment No. 148-NFPA 101-2022 [Section No. 29.4.2]	
Public Comment No. 149-NFPA 101-2022 [Section No. 30.4.3]	

Related Item

• PI 347

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 23 15:58:43 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Accepted
Resolution: SR-6628-NFPA 101-2022
Statement: The editorial revisions to this section are intended to correlate to the language approved in other Chapters of NFPA 101 by the responsible TCs. The change ensures a consistency in the language pointing to Section 8.7.3.3 for the alcohol based hand-rub (ABHR) dispensers and ABHR solution storage requirements.

Public Comment No. 181-NFPA 101-2022 [New Section after 26.3.6.2.6]

26.3.6.3 Portable Fire Extinguishers.

Portable fire extinguishers shall be provided in all lodging or rooming homes in accordance with Section 9.9.

Statement of Problem and Substantiation for Public Comment

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it's small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public's priorities and judgment for fight or flight are rational and appropriate.

Under the Scope of the Life Safety Code, Subsection 1.1.2 entitled, "Danger to Life form Fire," the Code states the following: "The Code addresses those construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire." Further, it states in Subsection 1.1.4 entitled, "Other Fire-Related Considerations," the following: "The Code addresses other considerations that are essential to life safety in recognition of the fact that life safety is more than a matter of egress. The Code also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire."

Studies of building fires indicate that occupants typically exhibit altruistic behavior toward others. Human response to a threatening situation might follow one of a variety of behaviors. Individuals might choose to investigate, sound an alarm, assist with rescue, seek help, or flee. Such actions constitute normal behavior, even when taken collectively. Most people avoid direct contact with a fire while undertaking another action.

There is a fundamental discrepancy between official/policy assumptions and the public in relation to priorities in the event of a fire. Government and professionals focus on avoiding injuries and see that as the sole aspiration, in the pursuit of which everything else is secondary. In contrast, the public have a wide and largely unrecognized range of priorities when encountering a fire, based on their individual circumstances. These include: the avoidance of embarrassment/inconvenience; mitigating the impact of damage to the property, e.g. avoiding the risk of being unable to remain in their place of business; and their concern for the wellbeing of other people. Each are invested by different aspirations in the fire safety ecosystem.

A desire to achieve their self-appointed tasks is a strong motivation for the public's behavior when encountering a fire. For most, this will involve an active response of on average five actions, although for some it will be as many as 11. This includes investigating the initial cues and tackling the fire, often using improvised means. They are usually successful in doing so, with 70% to 80% of fires dealt with

by the public without requiring professional assistance. It is important to note that in doing so, they are willingly acting against official advice and are not being coerced into this. The evidence shows the public to be effective and capable in tackling fires, even in the absence of any professional support, or often without specialized equipment. This is supported by the pioneering studies of the public experience of dwelling fires undertaken by Bryan (1977) and Wood (1972) in the USA and UK, respectively. Their studies supported by their findings that the public did undertake a range of self-appointed tasks including investigating and tackling fires. Recent studies have confirmed similar findings and these behaviors appear consistent over time.

The evidence further identifies that the public is willing and will accept minor consequences in their pursuit of achieving personal humanistic priorities and instinct. Concern for people, pets and possessions are strong and established drivers of behavior in the event of a fire. Therefore, this should be no surprise to see it as an influential feature of most individual's response to a fire.

2013 NFPA Report: "U.S. Experience with Sprinklers" reports that there were 48,460 reported structure fires annually in buildings equipped with sprinkler systems between 2007-2011, and 40,440 (83 percent) never grew large enough to activate the system. Based on this report alone, it's clear that people are reacting to small fires and extinguishing them prior to sprinkler activation. Limiting a fire to the smallest area within a building is a sensible aspiration.

A 2003 UK survey found that across all categories of location, extinguishers were successful in extinguishing 79.9% of fires. Note: Private houses accounted for only 3.3% of extinguisher use. It reported that 58.6% were operated by trained staff, 36.4% were operated by untrained staff and in 5% of incidents, this was unknown.

Data from the National Association of Fire Equipment Distributors (NAFED) provides even more robust validation of the influence of fire extinguishers as used by 'ordinary civilians. Their research and data indicate, "Of 13,221 fire incidents reported, portable fire extinguishers successfully extinguished 12,505 fires (95%)." (NAFED 2010: 2) The combined results of the 34 years of data are based on the performance of 32,756 fire extinguishers used on 13,453 incidents.

Fortunately, most people encountering a fire will avoid any injury or will be exposed to a low, and often considered risk of a minor injury at worst. This is not a matter of luck but due to a combination of their own abilities and to the low level of risk presented by most fires individuals would choose to fight at the incipient stage. A 2015 study identified that there was a disconnect between the fire service/government and the public in terms of what they referred to as 'risk tolerance'. This was most evident in attitude to injuries. Official policy seems to place avoidance of any injury as its highest priority and assumes this to also be the public's main motivation and enough to dictate any response to the discovery of a fire. However, the same study found that almost all those who incurred a minor injury accepted it as a reasonable cost in relation to pursuing or achieving their personal priorities. Further, they stated, in hindsight, they would do the same again.

It should be noted that numerous every day and discretionary activities carry similar or higher levels of risk to those resulting from using an extinguisher. Do-It-Yourself and sport for example are frequently responsible for injuries or even fatalities. In response, the government and industry seek to help make products safer or provide advice. This is preferred to denying people the option to participate in either activity by withdrawing public access to tools or sports equipment. The benefits achieved by the public using extinguishers are significant, given the potential for a fire to otherwise lead to detrimental and life-changing outcomes. A low and calculated level of personal risk willingly accepted by an individual tackling a fire can avoid, or reduce, a much higher risk to others should they ignore the fire and allow it to develop. Where current guidance discourages the provision of extinguishers in public spaces, this policy is neither supported by the evidence or justifiable through a consensus from the public. Rather it is imposed on them and is inconsistent with other approaches to public health.

The fire service's response time to structure fires has increased significantly over the past 25 years for several reasons like traffic, infrastructures, and lately staffing. Hence, the ability for the early interventions of the public are likely to be the most significant determinant of the outcome of a fire event. Most people do respond appropriately, and the literature confirms that they do not panic. Typically, most people are at risk of a minor injury at worst, due to the low risk from the fire and their own ability to assess and act in accordance with the situation.

A significant amount of data has been collected to support the requirement for portable extinguishers, including: WPI/EKU Study: “Ordinary People and the Effective Operation of Fire Extinguishers”, which clearly showed that the vast majority of people who have never used an extinguisher can operate one safely and effectively. This willingness of the public to accept minor injuries to protect individuals, the facility or their personal property is supported by literature and data and shows these to be well established behaviors which policy makers need to work with, rather than against.
Reflecting official policy, national and local fire safety messaging has, for some time, urged the public, on discovering a fire in the home, to “Get out, stay out”, “Don’t put yourself at risk” and ‘Leave it to the professionals.” This paternalistic messaging confirms the government policy makers and fire services’ belief that a professional response is the only intervention capable of safely tackling fires. Again, this starkly contrasts with the reality that between 70% and 80% of dwelling fires are tackled effectively and at low risk, by the public. The policy also fails to accord with the public who have been shown to be tolerant, or accepting, of the incurrence of minor injuries in pursuit of their personal priorities.

Surveys from the National Association of Fire Equipment Distributors (NAFED) in America reveals the same trend of public firefighting, with even higher percentages not needing the fire service. “In both the 1979 and 1985 surveys, the fire department was only called for 13% of the reported fires. In the 1996 survey, the fire department was called in 24% of the reported fires. However, in the 2010 survey the number dropped to 17% of the time’. And ‘These results are not unique to NAFED surveys. A 1978 publication by the U.S. Department of Commerce stated that about 90% of fires in households are not reported, based on their survey of 33,000 fires.” (NAFED, 2010: 9)

The public are likely to encounter a fire that is relatively small and often contained to the item first ignited. They are often the ones present when fire starts. In summary, there is a significant difference between official assumptions/guidance and actual public behavior. However, the government and FRS seek to deter this behavior, and, in singularly promoting there, “Get out’ message,” and remove the simple yet potential life saving devices in sprinklered buildings.

A recent study also showed that the public do not just get out, with 49% never leaving the property during the fire. While this may surprise or concern many professionals, it is likely to be explained by a difference between the fire as perceived by professionals and the lived experience of the public. There is nothing to suggest that the public routinely take unnecessary risks. A more likely explanation is that the fire was small and not sufficiently well-developed to pose an imminent injury or life threat. As such, they were able to remain in the premises safely and relatively comfortably, which is supported by the evidence in relation to the majority of fires not spreading beyond the item first ignited or the room of origin. Inclement weather or other factors may also make remaining in the premises a safer or more comfortable option. Fires, like other emergencies, must also be understood in human terms.

The concept of trading off portable extinguishers in sprinklered buildings has been largely abandoned by fire protection principles. NFPA 10 states in subsection 5.1.2, “The selection of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.” Other codes, and other occupancy chapters have abandoned this concept in recognition of the fact that portable extinguishers are a valuable, cost-effective layer of fire protection, and are intended for a different purpose than sprinklers. Recognition of the valuable role of extinguishers came from a 2003 report which concluded, ‘Fire extinguishers are designed to prevent relatively minor incidents becoming major conflagrations.’ It is, of course, difficult to prove how many and which fires would have developed to pose a serious risk if not tackled and contained early on. Events such as the Grenfell fire are a reminder of the consequences when this happens.

The National Fire Codes of both NFPA and the ICC require portable fire extinguishers in all occupancy classes including storage which addresses property protection and property loss as well as, the safety of the building occupants. Fire safety is grounded in the engineering discipline which brings many strengths to codes requirements, but it is insufficient, and fire safety effectiveness is limited by ignoring the social sciences of human behavior. It is important to appreciate that while different to official assumptions and desire for evacuation, research shows the public's priorities to be rational and appropriate. The public’s experience of fire is vastly different to that of the professionals involved in the planning for and responding to fire.

Official policy and attitudes of the Technical Committee are most singularly directed at avoiding the risk when the public encounters a fire. This is well meaning but the research has shown that this DOES NOT I REPEAT DOES NOT align with the publics’ attitude or the ability of the general public. The

belief that 'undesirable' behavior can be changed by advice, campaigns or other measures has been shown to be inaccurate. The paternalistic approach by which government and the building safety regulatory sector seek to change human behavior by removing proven and effective appliances such as portable fire extinguishers is WRONG. However, the building safety regulatory sector continue this approach despite the evidence that public behaviors are safe, effective, and largely unaltered by current guidance and campaigns rather than providing appropriate safety devices for use by the public. A portable fire extinguisher is an effective item of fire protection which allows for small fires to be tackled by the occupants of a building and saves 100s of thousands of dollars in property loss.

Concerns have been indicted regarding the requirement for training. Training in the use of extinguishers is an important issue and one in which opinion appears more influential than the evidence. Whether purchased for a private dwelling or provided through regulatory processes, there is no mandatory requirement for training to use an extinguisher, and studies do not reveal training to be a requirement for their safe or effective use. In fact, the available data and studies demonstrate the opposite to be the case.

The Technical Committee should also note that portable fire extinguishers are designed for the novice user. Although, training is recommended for proper use and technique and is wide available through a variety of resources including at online training; there are no specified training requirements even under OSHA unless that is an assigned duty employee by the employer. The proposed requirement is intended as a provision for layered fire protection for the general public and employees for general safety.

Although there is limited data available related to extinguisher use since the removal of portable fire extinguishers in the NIFRS data field, there is little to no data supporting the removal of portable fire extinguishers and sole reliance on building fire sprinkler systems. Limiting a fire to the smallest area within a building is a sensible aspiration.

Cost has been another point of contention. A study by Richard Bukowski in 2014, the life cycle cost of portable fire extinguishers was determined to be between one and a half and four cents per foot annually; if coverage could be maximized to that allowable by code, the cost drops to between a half cent and one cent per foot annually. It's unlikely that any other layer of fire protection is so cost-effective.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it's small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public's priorities and judgment for fight or flight are rational and appropriate.

Related Item

• Public Input No. 395-NFPA 101-2021

Submitter Information Verification

Submitter Full Name:	Marvin Garriss
Organization:	Synergy Consortium Group, LLC

Affiliation: The National Association of State Fire Marshals, The International Fire Marshal's Association - Georgia Chapter / The Georgia Fire Prevention Association and Fire Equipment Manufacturers' Association

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 28 17:06:35 EDT 2022

Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of not providing fire extinguishers is to allow people to escape and not try to extinguish the fire, allowing trained personnel to handle the fire. The requirement for extinguishers also adds a requirement for the building owner to provide training as well as maintenance. Providing fire extinguishers is a challenge based on cost of providing and maintaining them. There are also instances of misuse by the occupants. The code does not restrict the use of fire extinguishers, therefore fire extinguishers can be added but are not required to be added. The added substantiation provided by the submitter does not provide a reason for the technical committee to change it's decision from the first draft meeting.

Public Comment No. 36-NFPA 101-2022 [Section No. 28.3.5.1]

28.3.5.1

All buildings shall be protected throughout by an approved, automatic sprinkler system in accordance with 28.3.5.3 and electrically supervised in accordance with 9.7.2.

Additional Proposed Changes

File Name	Description	Approved
101_A2023_SAF_AAC_CCN_36.pdf	101_Correlating Committee Note No. 36	

Statement of Problem and Substantiation for Public Comment

NOTE: The following CC Note No. 36 appeared in the First Draft Report on First Revision No. 6651. Consider changing "and electrically supervised…" to "that is electrically supervised…" to clarify that it is the automatic sprinkler system and not the building that must be electrically supervised.

Related Item

• FR-6651

Submitter Information Verification

Submitter Full Name: CC ON SAF_AAC
Organization: NFPA
Street Address:
City:
State:
Zip:
Submittal Date: Tue Mar 22 10:31:07 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-6634-NFPA 101-2022
Statement: Clarification of the requirement as requested by the Correlating Committee and clarified by other technical committees.

Correlating Committee Note No. 36-NFPA 101-2022 [Section No. 28.3.5.1]

Submitter Information Verification

Committee: SAF-AAC
Submittal Date: Mon Jan 17 16:10:47 EST 2022

Committee Statement and Meeting Notes

Committee Statement: Consider changing "and electrically supervised…" to "that is electrically supervised…" to clarify that it is the automatic sprinkler system and not the building that must be electrically supervised.

First Revision No. 6651-NFPA 101-2021 [Section No. 28.3.5.1]

Ballot Results

✔ **This item has passed ballot**

11 Eligible Voters
1 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Taluba, Jon

Affirmative All

Bush, Kenneth E.
Carson, Wayne G. Chip
Gilyeat, Sharon S.
Harbuck, Stanley C.
Hopper, Howard
Hugo, Jeffrey M.
Lucas, Jeffrey A.
Quiter, James R.
Reiswig, Rodger
Rosenbaum, Eric R.

Public Comment No. 182-NFPA 101-2022 [Section No. 28.3.5.6]

28.3.5.6

~~In buildings other than those protected throughout with an approved, supervised automatic sprinkler system in accordance with~~ ~~28.3.5.3~~ ~~, portable~~ Portable fire extinguishers shall be provided as specified in Section 9.9~~ in hazardous areas addressed by~~ ~~28.3.2.2~~ ~~.~~ .

Statement of Problem and Substantiation for Public Comment

A 2013 NFPA Report: “U.S. Experience with Sprinklers” reports that there were 48,460 reported structure fires annually in buildings equipped with sprinkler systems between 2007-2011, and 40,440 (83 percent) never grew large enough to activate the system. Based on this report alone, it’s clear that people are reacting to small fires and extinguishing them prior to sprinkler activation. Limiting a fire to the smallest area within a building is a sensible aspiration.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it’s small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public’s priorities and judgment for fight or flight are rational and appropriate.

Under the Scope of the Life Safety Code, Subsection 1.1.2 entitled, “Danger to Life form Fire,” the Code states the following: “The Code addresses those construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire.” Further, it states in Subsection 1.1.4 entitled, “Other Fire-Related Considerations,” the following: “The Code addresses other considerations that are essential to life safety in recognition of the fact that life safety is more than a matter of egress. The Code also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire.”

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There is a fundamental discrepancy between official/policy assumptions and the public in relation to priorities in the event of a fire. Government and professionals focus on avoiding injuries and see that as the sole aspiration, in the pursuit of which everything else is secondary. In contrast, the public have a wide and largely unrecognized range of priorities when encountering a fire, based on their individual circumstances. These include: the avoidance of embarrassment/inconvenience; mitigating the impact of damage to the property, e.g. avoiding the risk of being unable to remain in their place of business;

and their concern for the wellbeing of other people. Each are invested by different aspirations in the fire safety ecosystem.

A desire to achieve their self-appointed tasks is a strong motivation for the public's behavior when encountering a fire. For most, this will involve an active response of on average five actions, although for some it will be as many as 11. This includes investigating the initial cues and tackling the fire, often using improvised means. They are usually successful in doing so, with 70% to 80% of fires dealt with by the public without requiring professional assistance. It is important to note that in doing so, they are willingly acting against official advice and are not being coerced into this. The evidence shows the public to be effective and capable in tackling fires, even in the absence of any professional support, or often without specialized equipment. This is supported by the pioneering studies of the public experience of dwelling fires undertaken by Bryan (1977) and Wood (1972) in the USA and UK, respectively. Their studies supported by their findings that the public did undertake a range of self-appointed tasks including investigating and tackling fires. Recent studies have confirmed similar findings and these behaviors appear consistent over time.

The evidence further identifies that the public is willing and will accept minor consequences in their pursuit of achieving personal humanistic priorities and instinct. Concern for people, pets and possessions are strong and established drivers of behavior in the event of a fire. Therefore, this should be no surprise to see it as an influential feature of most individual's response to a fire.

A 2003 UK survey found that across all categories of location, extinguishers were successful in extinguishing 79.9% of fires. Note: Private houses accounted for only 3.3% of extinguisher use. It reported that 58.6% were operated by trained staff, 36.4% were operated by untrained staff and in 5% of incidents, this was unknown.

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Fortunately, most people encountering a fire will avoid any injury or will be exposed to a low, and often considered risk of a minor injury at worst. This is not a matter of luck but due to a combination of their own abilities and to the low level of risk presented by most fires individuals would choose to fight at the incipient stage. A 2015 study identified that there was a disconnect between the fire service/government and the public in terms of what they referred to as 'risk tolerance'. This was most evident in attitude to injuries. Official policy seems to place avoidance of any injury as its highest priority and assumes this to also be the public's main motivation and enough to dictate any response to the discovery of a fire. However, the same study found that almost all those who incurred a minor injury accepted it as a reasonable cost in relation to pursuing or achieving their personal priorities. Further, they stated, in hindsight, they would do the same again.

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A significant amount of data has been collected to support the requirement for portable extinguishers, including: WPI/EKU Study: “Ordinary People and the Effective Operation of Fire Extinguishers”, which clearly showed that the vast majority of people who have never used an extinguisher can operate one safely and effectively. This willingness of the public to accept minor injuries to protect individuals, the facility or their personal property is supported by literature and data and shows these to be well established behaviors which policy makers need to work with, rather than against.
Reflecting official policy, national and local fire safety messaging has, for some time, urged the public, on discovering a fire in the home, to “Get out, stay out”, “Don’t put yourself at risk” and ‘Leave it to the professionals.” This paternalistic messaging confirms the government policy makers and fire services’ belief that a professional response is the only intervention capable of safely tackling fires. Again, this starkly contrasts with the reality that between 70% and 80% of dwelling fires are tackled effectively and at low risk, by the public. The policy also fails to accord with the public who have been shown to be tolerant, or accepting, of the incurrence of minor injuries in pursuit of their personal priorities.

Surveys from the National Association of Fire Equipment Distributors (NAFED) in America reveals the same trend of public firefighting, with even higher percentages not needing the fire service. “In both the 1979 and 1985 surveys, the fire department was only called for 13% of the reported fires. In the 1996 survey, the fire department was called in 24% of the reported fires. However, in the 2010 survey the number dropped to 17% of the time’. And ‘These results are not unique to NAFED surveys. A 1978 publication by the U.S. Department of Commerce stated that about 90% of fires in households are not reported, based on their survey of 33,000 fires.” (NAFED, 2010: 9)

The public are likely to encounter a fire that is relatively small and often contained to the item first ignited. They are often the ones present when fire starts. In summary, there is a significant difference between official assumptions/guidance and actual public behavior. However, the government and FRS seek to deter this behavior, and, in singularly promoting there, “Get out’ message,” and remove the simple yet potential life saving devices in sprinklered buildings.

A recent study also showed that the public do not just get out, with 49% never leaving the property during the fire. While this may surprise or concern many professionals, it is likely to be explained by a difference between the fire as perceived by professionals and the lived experience of the public. There is nothing to suggest that the public routinely take unnecessary risks. A more likely explanation is that the fire was small and not sufficiently well-developed to pose an imminent injury or life threat. As such, they were able to remain in the premises safely and relatively comfortably, which is supported by the evidence in relation to the majority of fires not spreading beyond the item first ignited or the room of origin. Inclement weather or other factors may also make remaining in the premises a safer or more comfortable option. Fires, like other emergencies, must also be understood in human terms.

The concept of trading off portable extinguishers in sprinklered buildings has been largely abandoned by fire protection principles. NFPA 10 states in subsection 5.1.2, “The selection of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.” Other codes, and other occupancy chapters have abandoned this concept in recognition of the fact that portable extinguishers are a valuable, cost-effective layer of fire protection, and are intended for a different purpose than sprinklers. Recognition of the valuable role of extinguishers came from a 2003 report which concluded, ‘Fire extinguishers are designed to prevent relatively minor incidents becoming major conflagrations.’ It is, of course, difficult to prove how many and which fires would have developed to pose a serious risk if not tackled and contained early on. Events such as the Grenfell fire are a reminder of the consequences when this happens.

The National Fire Codes of both NFPA and the ICC require portable fire extinguishers in all occupancy classes including storage which addresses property protection and property loss as well as, the safety of the building occupants. Fire safety is grounded in the engineering discipline which brings many strengths to codes requirements, but it is insufficient, and fire safety effectiveness is limited by ignoring the social sciences of human behavior. It is important to appreciate that while different to official assumptions and desire for evacuation, research shows the public's priorities to be rational and appropriate. The public’s experience of fire is vastly different to that of the professionals involved in the planning for and responding to fire.

Official policy and attitudes of the Technical Committee are most singularly directed at avoiding the risk when the public encounters a fire. This is well meaning but the research has shown that this DOES

NOT I REPEAT DOES NOT align with the publics' attitude or the ability of the general public. The belief that 'undesirable' behavior can be changed by advice, campaigns or other measures has been shown to be inaccurate. The paternalistic approach by which government and the building safety regulatory sector seek to change human behavior by removing proven and effective appliances such as portable fire extinguishers is WRONG. However, the building safety regulatory sector continue this approach despite the evidence that public behaviors are safe, effective, and largely unaltered by current guidance and campaigns rather than providing appropriate safety devices for use by the public. A portable fire extinguisher is an effective item of fire protection which allows for small fires to be tackled by the occupants of a building and saves 100s of thousands of dollars in property loss.

Concerns have been indicted regarding the requirement for training. Training in the use of extinguishers is an important issue and one in which opinion appears more influential than the evidence. Whether purchased for a private dwelling or provided through regulatory processes, there is no mandatory requirement for training to use an extinguisher, and studies do not reveal training to be a requirement for their safe or effective use. In fact, the available data and studies demonstrate the opposite to be the case.

The Technical Committee should also note that portable fire extinguishers are designed for the novice user. Although, training is recommended for proper use and technique and is wide available through a variety of resources including at online training; there are no specified training requirements even under OSHA unless that is an assigned duty employee by the employer. The proposed requirement is intended as a provision for layered fire protection for the general public and employees for general safety.

Although there is limited data available related to extinguisher use since the removal of portable fire extinguishers in the NIFRS data field, there is little to no data supporting the removal of portable fire extinguishers and sole reliance on building fire sprinkler systems. Limiting a fire to the smallest area within a building is a sensible aspiration.

Cost has been another point of contention. A study by Richard Bukowski in 2014, the life cycle cost of portable fire extinguishers was determined to be between one and a half and four cents per foot annually; if coverage could be maximized to that allowable by code, the cost drops to between a half cent and one cent per foot annually. It's unlikely that any other layer of fire protection is so cost-effective.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it's small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public's priorities and judgment for fight or flight are rational and appropriate.

Related Item

• Public Input No. 394-NFPA 101-2021

Submitter Information Verification

Submitter Full Name:	Marvin Garriss
Organization:	Synergy Consortium Group, LLC

Affiliation: The National Association of State Fire Marshals, The International Fire Marshal's Association - Georgia Chapter / The Georgia Fire Prevention Association and Fire Equipment Manufacturers' Association

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 28 17:15:06 EDT 2022

Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of not providing fire extinguishers is to allow people to escape and not try to extinguish the fire, allowing trained personnel to handle the fire. The requirement for extinguishers also adds a requirement for the building owner to provide training as well as maintenance. Providing fire extinguishers is a challenge based on cost of providing and maintaining them. There are also instances of misuse by the occupants. The code does not restrict the use of fire extinguishers, therefore fire extinguishers can be added but are not required to be added. The added substantiation provided by the submitter does not provide a reason for the technical committee to change it's decision from the first draft meeting. The change in proposed language removes an incentive to provide an automatic sprinkler system.

Public Comment No. 183-NFPA 101-2022 [Section No. 28.3.5.6]

28.3.5.6

~~In buildings other than those protected throughout with an approved, supervised automatic sprinkler system in accordance with~~ ~~28.3.5.3~~ ~~, portable~~ Portable fire extinguishers shall be provided as specified in Section 9.9 in hazardous areas addressed by 28.3.2.2.

Statement of Problem and Substantiation for Public Comment

A 2013 NFPA Report: “U.S. Experience with Sprinklers” reports that there were 48,460 reported structure fires annually in buildings equipped with sprinkler systems between 2007-2011, and 40,440 (83 percent) never grew large enough to activate the system. Based on this report alone, it’s clear that people are reacting to small fires and extinguishing them prior to sprinkler activation. Limiting a fire to the smallest area within a building is a sensible aspiration.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it’s small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public’s priorities and judgment for fight or flight are rational and appropriate.

Under the Scope of the Life Safety Code, Subsection 1.1.2 entitled, “Danger to Life form Fire,” the Code states the following: “The Code addresses those construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire.” Further, it states in Subsection 1.1.4 entitled, “Other Fire-Related Considerations,” the following: “The Code addresses other considerations that are essential to life safety in recognition of the fact that life safety is more than a matter of egress. The Code also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire.”

Studies of building fires indicate that occupants typically exhibit altruistic behavior toward others. Human response to a threatening situation might follow one of a variety of behaviors. Individuals might choose to investigate, sound an alarm, assist with rescue, seek help, or flee. Such actions constitute normal behavior, even when taken collectively. Most people avoid direct contact with a fire while undertaking another action.

There is a fundamental discrepancy between official/policy assumptions and the public in relation to priorities in the event of a fire. Government and professionals focus on avoiding injuries and see that as the sole aspiration, in the pursuit of which everything else is secondary. In contrast, the public have a wide and largely unrecognized range of priorities when encountering a fire, based on their individual circumstances. These include: the avoidance of embarrassment/inconvenience; mitigating the impact of damage to the property, e.g. avoiding the risk of being unable to remain in their place of business;

and their concern for the wellbeing of other people. Each are invested by different aspirations in the fire safety ecosystem.

A desire to achieve their self-appointed tasks is a strong motivation for the public's behavior when encountering a fire. For most, this will involve an active response of on average five actions, although for some it will be as many as 11. This includes investigating the initial cues and tackling the fire, often using improvised means. They are usually successful in doing so, with 70% to 80% of fires dealt with by the public without requiring professional assistance. It is important to note that in doing so, they are willingly acting against official advice and are not being coerced into this. The evidence shows the public to be effective and capable in tackling fires, even in the absence of any professional support, or often without specialized equipment. This is supported by the pioneering studies of the public experience of dwelling fires undertaken by Bryan (1977) and Wood (1972) in the USA and UK, respectively. Their studies supported by their findings that the public did undertake a range of self-appointed tasks including investigating and tackling fires. Recent studies have confirmed similar findings and these behaviors appear consistent over time.

The evidence further identifies that the public is willing and will accept minor consequences in their pursuit of achieving personal humanistic priorities and instinct. Concern for people, pets and possessions are strong and established drivers of behavior in the event of a fire. Therefore, this should be no surprise to see it as an influential feature of most individual's response to a fire.

A 2003 UK survey found that across all categories of location, extinguishers were successful in extinguishing 79.9% of fires. Note: Private houses accounted for only 3.3% of extinguisher use. It reported that 58.6% were operated by trained staff, 36.4% were operated by untrained staff and in 5% of incidents, this was unknown.

Data from the National Association of Fire Equipment Distributors (NAFED) provides even more robust validation of the influence of fire extinguishers as used by 'ordinary civilians. Their research and data indicate, "Of 13,221 fire incidents reported, portable fire extinguishers successfully extinguished 12,505 fires (95%)." (NAFED 2010: 2) The combined results of the 34 years of data are based on the performance of 32,756 fire extinguishers used on 13,453 incidents.

Fortunately, most people encountering a fire will avoid any injury or will be exposed to a low, and often considered risk of a minor injury at worst. This is not a matter of luck but due to a combination of their own abilities and to the low level of risk presented by most fires individuals would choose to fight at the incipient stage. A 2015 study identified that there was a disconnect between the fire service/government and the public in terms of what they referred to as 'risk tolerance'. This was most evident in attitude to injuries. Official policy seems to place avoidance of any injury as its highest priority and assumes this to also be the public's main motivation and enough to dictate any response to the discovery of a fire. However, the same study found that almost all those who incurred a minor injury accepted it as a reasonable cost in relation to pursuing or achieving their personal priorities. Further, they stated, in hindsight, they would do the same again.

It should be noted that numerous every day and discretionary activities carry similar or higher levels of risk to those resulting from using an extinguisher. Do-It-Yourself and sport for example are frequently responsible for injuries or even fatalities. In response, the government and industry seek to help make products safer or provide advice. This is preferred to denying people the option to participate in either activity by withdrawing public access to tools or sports equipment. The benefits achieved by the public using extinguishers are significant, given the potential for a fire to otherwise lead to detrimental and life-changing outcomes. A low and calculated level of personal risk willingly accepted by an individual tackling a fire can avoid, or reduce, a much higher risk to others should they ignore the fire and allow it to develop. Where current guidance discourages the provision of extinguishers in public spaces, this policy is neither supported by the evidence or justifiable through a consensus from the public. Rather it is imposed on them and is inconsistent with other approaches to public health.

The fire service's response time to structure fires has increased significantly over the past 25 years for several reasons like traffic, infrastructures, and lately staffing. Hence, the ability for the early interventions of the public are likely to be the most significant determinant of the outcome of a fire event. Most people do respond appropriately, and the literature confirms that they do not panic. Typically, most people are at risk of a minor injury at worst, due to the low risk from the fire and their own ability to assess and act in accordance with the situation.

A significant amount of data has been collected to support the requirement for portable extinguishers, including: WPI/EKU Study: “Ordinary People and the Effective Operation of Fire Extinguishers”, which clearly showed that the vast majority of people who have never used an extinguisher can operate one safely and effectively. This willingness of the public to accept minor injuries to protect individuals, the facility or their personal property is supported by literature and data and shows these to be well established behaviors which policy makers need to work with, rather than against.
Reflecting official policy, national and local fire safety messaging has, for some time, urged the public, on discovering a fire in the home, to “Get out, stay out”, “Don’t put yourself at risk” and ‘Leave it to the professionals.” This paternalistic messaging confirms the government policy makers and fire services’ belief that a professional response is the only intervention capable of safely tackling fires. Again, this starkly contrasts with the reality that between 70% and 80% of dwelling fires are tackled effectively and at low risk, by the public. The policy also fails to accord with the public who have been shown to be tolerant, or accepting, of the incurrence of minor injuries in pursuit of their personal priorities.

Surveys from the National Association of Fire Equipment Distributors (NAFED) in America reveals the same trend of public firefighting, with even higher percentages not needing the fire service. “In both the 1979 and 1985 surveys, the fire department was only called for 13% of the reported fires. In the 1996 survey, the fire department was called in 24% of the reported fires. However, in the 2010 survey the number dropped to 17% of the time’. And ‘These results are not unique to NAFED surveys. A 1978 publication by the U.S. Department of Commerce stated that about 90% of fires in households are not reported, based on their survey of 33,000 fires.” (NAFED, 2010: 9)

The public are likely to encounter a fire that is relatively small and often contained to the item first ignited. They are often the ones present when fire starts. In summary, there is a significant difference between official assumptions/guidance and actual public behavior. However, the government and FRS seek to deter this behavior, and, in singularly promoting there, “Get out’ message,” and remove the simple yet potential life saving devices in sprinklered buildings.

A recent study also showed that the public do not just get out, with 49% never leaving the property during the fire. While this may surprise or concern many professionals, it is likely to be explained by a difference between the fire as perceived by professionals and the lived experience of the public. There is nothing to suggest that the public routinely take unnecessary risks. A more likely explanation is that the fire was small and not sufficiently well-developed to pose an imminent injury or life threat. As such, they were able to remain in the premises safely and relatively comfortably, which is supported by the evidence in relation to the majority of fires not spreading beyond the item first ignited or the room of origin. Inclement weather or other factors may also make remaining in the premises a safer or more comfortable option. Fires, like other emergencies, must also be understood in human terms.

The concept of trading off portable extinguishers in sprinklered buildings has been largely abandoned by fire protection principles. NFPA 10 states in subsection 5.1.2, “The selection of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.” Other codes, and other occupancy chapters have abandoned this concept in recognition of the fact that portable extinguishers are a valuable, cost-effective layer of fire protection, and are intended for a different purpose than sprinklers. Recognition of the valuable role of extinguishers came from a 2003 report which concluded, ‘Fire extinguishers are designed to prevent relatively minor incidents becoming major conflagrations.’ It is, of course, difficult to prove how many and which fires would have developed to pose a serious risk if not tackled and contained early on. Events such as the Grenfell fire are a reminder of the consequences when this happens.

The National Fire Codes of both NFPA and the ICC require portable fire extinguishers in all occupancy classes including storage which addresses property protection and property loss as well as, the safety of the building occupants. Fire safety is grounded in the engineering discipline which brings many strengths to codes requirements, but it is insufficient, and fire safety effectiveness is limited by ignoring the social sciences of human behavior. It is important to appreciate that while different to official assumptions and desire for evacuation, research shows the public's priorities to be rational and appropriate. The public’s experience of fire is vastly different to that of the professionals involved in the planning for and responding to fire.

Official policy and attitudes of the Technical Committee are most singularly directed at avoiding the risk when the public encounters a fire. This is well meaning but the research has shown that this DOES

NOT I REPEAT DOES NOT align with the publics' attitude or the ability of the general public. The belief that 'undesirable' behavior can be changed by advice, campaigns or other measures has been shown to be inaccurate. The paternalistic approach by which government and the building safety regulatory sector seek to change human behavior by removing proven and effective appliances such as portable fire extinguishers is WRONG. However, the building safety regulatory sector continue this approach despite the evidence that public behaviors are safe, effective, and largely unaltered by current guidance and campaigns rather than providing appropriate safety devices for use by the public. A portable fire extinguisher is an effective item of fire protection which allows for small fires to be tackled by the occupants of a building and saves 100s of thousands of dollars in property loss.

Concerns have been indicted regarding the requirement for training. Training in the use of extinguishers is an important issue and one in which opinion appears more influential than the evidence. Whether purchased for a private dwelling or provided through regulatory processes, there is no mandatory requirement for training to use an extinguisher, and studies do not reveal training to be a requirement for their safe or effective use. In fact, the available data and studies demonstrate the opposite to be the case.

The Technical Committee should also note that portable fire extinguishers are designed for the novice user. Although, training is recommended for proper use and technique and is wide available through a variety of resources including at online training; there are no specified training requirements even under OSHA unless that is an assigned duty employee by the employer. The proposed requirement is intended as a provision for layered fire protection for the general public and employees for general safety.

Although there is limited data available related to extinguisher use since the removal of portable fire extinguishers in the NIFRS data field, there is little to no data supporting the removal of portable fire extinguishers and sole reliance on building fire sprinkler systems. Limiting a fire to the smallest area within a building is a sensible aspiration.

Cost has been another point of contention. A study by Richard Bukowski in 2014, the life cycle cost of portable fire extinguishers was determined to be between one and a half and four cents per foot annually; if coverage could be maximized to that allowable by code, the cost drops to between a half cent and one cent per foot annually. It's unlikely that any other layer of fire protection is so cost-effective.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it's small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public's priorities and judgment for fight or flight are rational and appropriate. This proposal is to provide for the Technical Committee the ability to at a minimum place the requirement for portable fire extinguishers into hazardous areas only.

Related Item

• Public Input No. 394-NFPA 101-2021

Submitter Information Verification

Submitter Full Name: Marvin Garriss

Organization: Synergy Consortium Group, LLC

Affiliation: The National Association of State Fire Marshals, The International Fire Marshal's Association - Georgia Chapter / The Georgia Fire Prevention Association and Fire Equipment Manufacturers' Association

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 28 17:22:23 EDT 2022

Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of not providing fire extinguishers is to allow people to escape and not try to extinguish the fire, allowing trained personnel to handle the fire. The requirement for extinguishers also adds a requirement for the building owner to provide training as well as maintenance. Providing fire extinguishers is a challenge based on cost of providing and maintaining them. There are also instances of misuse by the occupants. The code does not restrict the use of fire extinguishers, therefore fire extinguishers can be added but are not required to be added. The added substantiation provided by the submitter does not provide a reason for the technical committee to change it's decision from the first draft meeting.

Public Comment No. 147-NFPA 101-2022 [Section No. 28.4.2]

28.4.2 Alcohol-Based Hand-Rub Dispensers.

The installation and maintenance of Alcohol-based hand-rub dispensers ~~in accordance with~~ and the storage of alcohol-based hand rub solutions in accordance with 8.7.3. ~~3~~ 3 shall be permitted.

Statement of Problem and Substantiation for Public Comment

The changes to the requirements do not improve the current requirements. They also do not change the requirements but restate the same requirements. A task group has been formed to coordinate with the NFPA 30 and NFPA 1 Alcohol Task Group

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 143-NFPA 101-2022 [New Section after 11.1.8]	
Public Comment No. 144-NFPA 101-2022 [Section No. 12.4.6]	
Public Comment No. 145-NFPA 101-2022 [Section No. 13.4.6]	
Public Comment No. 146-NFPA 101-2022 [Section No. 26.3.2.1]	
Public Comment No. 148-NFPA 101-2022 [Section No. 29.4.2]	
Public Comment No. 149-NFPA 101-2022 [Section No. 30.4.3]	

Related Item

- PI 349

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 23 16:02:37 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Accepted
Resolution: SR-6629-NFPA 101-2022

Statement: A task group has been formed to coordinate with the NFPA 30 and NFPA 1 Alcohol Task Group.

Providing a pointer to section 8.7.3.3 will provide a direct link to all the requirements needed for safe installation, use, and maintenance of alcohol based hand rub dispensers as well as the storage of any alcohol based hand rub materials not in use.

Public Comment No. 184-NFPA 101-2022 [Section No. 29.3.5.8]

29.3.5.8

~~In buildings other than those protected throughout with an approved, supervised automatic sprinkler system in accordance with~~ ~~29.3.5.3~~ ~~, portable~~ Portable fire extinguishers shall be provided as specified in Section 9.9~~ in hazardous areas addressed by~~ ~~29.3.2.2~~ ~~.~~ .

Statement of Problem and Substantiation for Public Comment

A 2013 NFPA Report: “U.S. Experience with Sprinklers” reports that there were 48,460 reported structure fires annually in buildings equipped with sprinkler systems between 2007-2011, and 40,440 (83 percent) never grew large enough to activate the system. Based on this report alone, it’s clear that people are reacting to small fires and extinguishing them prior to sprinkler activation. Limiting a fire to the smallest area within a building is a sensible aspiration.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it’s small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public’s priorities and judgment for fight or flight are rational and appropriate.

Under the Scope of the Life Safety Code, Subsection 1.1.2 entitled, “Danger to Life form Fire,” the Code states the following: “The Code addresses those construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire.” Further, it states in Subsection 1.1.4 entitled, “Other Fire-Related Considerations,” the following: “The Code addresses other considerations that are essential to life safety in recognition of the fact that life safety is more than a matter of egress. The Code also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire.”

Studies of building fires indicate that occupants typically exhibit altruistic behavior toward others. Human response to a threatening situation might follow one of a variety of behaviors. Individuals might choose to investigate, sound an alarm, assist with rescue, seek help, or flee. Such actions constitute normal behavior, even when taken collectively. Most people avoid direct contact with a fire while undertaking another action.

There is a fundamental discrepancy between official/policy assumptions and the public in relation to priorities in the event of a fire. Government and professionals focus on avoiding injuries and see that as the sole aspiration, in the pursuit of which everything else is secondary. In contrast, the public have a wide and largely unrecognized range of priorities when encountering a fire, based on their individual circumstances. These include: the avoidance of embarrassment/inconvenience; mitigating the impact of damage to the property, e.g. avoiding the risk of being unable to remain in their place of business;

and their concern for the wellbeing of other people. Each are invested by different aspirations in the fire safety ecosystem.

A desire to achieve their self-appointed tasks is a strong motivation for the public's behavior when encountering a fire. For most, this will involve an active response of on average five actions, although for some it will be as many as 11. This includes investigating the initial cues and tackling the fire, often using improvised means. They are usually successful in doing so, with 70% to 80% of fires dealt with by the public without requiring professional assistance. It is important to note that in doing so, they are willingly acting against official advice and are not being coerced into this. The evidence shows the public to be effective and capable in tackling fires, even in the absence of any professional support, or often without specialized equipment. This is supported by the pioneering studies of the public experience of dwelling fires undertaken by Bryan (1977) and Wood (1972) in the USA and UK, respectively. Their studies supported by their findings that the public did undertake a range of self-appointed tasks including investigating and tackling fires. Recent studies have confirmed similar findings and these behaviors appear consistent over time.

The evidence further identifies that the public is willing and will accept minor consequences in their pursuit of achieving personal humanistic priorities and instinct. Concern for people, pets and possessions are strong and established drivers of behavior in the event of a fire. Therefore, this should be no surprise to see it as an influential feature of most individual's response to a fire.

A 2003 UK survey found that across all categories of location, extinguishers were successful in extinguishing 79.9% of fires. Note: Private houses accounted for only 3.3% of extinguisher use. It reported that 58.6% were operated by trained staff, 36.4% were operated by untrained staff and in 5% of incidents, this was unknown.

Data from the National Association of Fire Equipment Distributors (NAFED) provides even more robust validation of the influence of fire extinguishers as used by 'ordinary civilians. Their research and data indicate, "Of 13,221 fire incidents reported, portable fire extinguishers successfully extinguished 12,505 fires (95%)." (NAFED 2010: 2) The combined results of the 34 years of data are based on the performance of 32,756 fire extinguishers used on 13,453 incidents.

Fortunately, most people encountering a fire will avoid any injury or will be exposed to a low, and often considered risk of a minor injury at worst. This is not a matter of luck but due to a combination of their own abilities and to the low level of risk presented by most fires individuals would choose to fight at the incipient stage. A 2015 study identified that there was a disconnect between the fire service/government and the public in terms of what they referred to as 'risk tolerance'. This was most evident in attitude to injuries. Official policy seems to place avoidance of any injury as its highest priority and assumes this to also be the public's main motivation and enough to dictate any response to the discovery of a fire. However, the same study found that almost all those who incurred a minor injury accepted it as a reasonable cost in relation to pursuing or achieving their personal priorities. Further, they stated, in hindsight, they would do the same again.

It should be noted that numerous every day and discretionary activities carry similar or higher levels of risk to those resulting from using an extinguisher. Do-It-Yourself and sport for example are frequently responsible for injuries or even fatalities. In response, the government and industry seek to help make products safer or provide advice. This is preferred to denying people the option to participate in either activity by withdrawing public access to tools or sports equipment. The benefits achieved by the public using extinguishers are significant, given the potential for a fire to otherwise lead to detrimental and life-changing outcomes. A low and calculated level of personal risk willingly accepted by an individual tackling a fire can avoid, or reduce, a much higher risk to others should they ignore the fire and allow it to develop. Where current guidance discourages the provision of extinguishers in public spaces, this policy is neither supported by the evidence or justifiable through a consensus from the public. Rather it is imposed on them and is inconsistent with other approaches to public health.

The fire service's response time to structure fires has increased significantly over the past 25 years for several reasons like traffic, infrastructures, and lately staffing. Hence, the ability for the early interventions of the public are likely to be the most significant determinant of the outcome of a fire event. Most people do respond appropriately, and the literature confirms that they do not panic. Typically, most people are at risk of a minor injury at worst, due to the low risk from the fire and their own ability to assess and act in accordance with the situation.

A significant amount of data has been collected to support the requirement for portable extinguishers, including: WPI/EKU Study: “Ordinary People and the Effective Operation of Fire Extinguishers”, which clearly showed that the vast majority of people who have never used an extinguisher can operate one safely and effectively. This willingness of the public to accept minor injuries to protect individuals, the facility or their personal property is supported by literature and data and shows these to be well established behaviors which policy makers need to work with, rather than against.
Reflecting official policy, national and local fire safety messaging has, for some time, urged the public, on discovering a fire in the home, to “Get out, stay out”, “Don’t put yourself at risk” and ‘Leave it to the professionals.” This paternalistic messaging confirms the government policy makers and fire services’ belief that a professional response is the only intervention capable of safely tackling fires. Again, this starkly contrasts with the reality that between 70% and 80% of dwelling fires are tackled effectively and at low risk, by the public. The policy also fails to accord with the public who have been shown to be tolerant, or accepting, of the incurrence of minor injuries in pursuit of their personal priorities.

Surveys from the National Association of Fire Equipment Distributors (NAFED) in America reveals the same trend of public firefighting, with even higher percentages not needing the fire service. “In both the 1979 and 1985 surveys, the fire department was only called for 13% of the reported fires. In the 1996 survey, the fire department was called in 24% of the reported fires. However, in the 2010 survey the number dropped to 17% of the time’. And ‘These results are not unique to NAFED surveys. A 1978 publication by the U.S. Department of Commerce stated that about 90% of fires in households are not reported, based on their survey of 33,000 fires.” (NAFED, 2010: 9)

The public are likely to encounter a fire that is relatively small and often contained to the item first ignited. They are often the ones present when fire starts. In summary, there is a significant difference between official assumptions/guidance and actual public behavior. However, the government and FRS seek to deter this behavior, and, in singularly promoting there, “Get out’ message,” and remove the simple yet potential life saving devices in sprinklered buildings.

A recent study also showed that the public do not just get out, with 49% never leaving the property during the fire. While this may surprise or concern many professionals, it is likely to be explained by a difference between the fire as perceived by professionals and the lived experience of the public. There is nothing to suggest that the public routinely take unnecessary risks. A more likely explanation is that the fire was small and not sufficiently well-developed to pose an imminent injury or life threat. As such, they were able to remain in the premises safely and relatively comfortably, which is supported by the evidence in relation to the majority of fires not spreading beyond the item first ignited or the room of origin. Inclement weather or other factors may also make remaining in the premises a safer or more comfortable option. Fires, like other emergencies, must also be understood in human terms.

The concept of trading off portable extinguishers in sprinklered buildings has been largely abandoned by fire protection principles. NFPA 10 states in subsection 5.1.2, “The selection of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.” Other codes, and other occupancy chapters have abandoned this concept in recognition of the fact that portable extinguishers are a valuable, cost-effective layer of fire protection, and are intended for a different purpose than sprinklers. Recognition of the valuable role of extinguishers came from a 2003 report which concluded, ‘Fire extinguishers are designed to prevent relatively minor incidents becoming major conflagrations.’ It is, of course, difficult to prove how many and which fires would have developed to pose a serious risk if not tackled and contained early on. Events such as the Grenfell fire are a reminder of the consequences when this happens.

The National Fire Codes of both NFPA and the ICC require portable fire extinguishers in all occupancy classes including storage which addresses property protection and property loss as well as, the safety of the building occupants. Fire safety is grounded in the engineering discipline which brings many strengths to codes requirements, but it is insufficient, and fire safety effectiveness is limited by ignoring the social sciences of human behavior. It is important to appreciate that while different to official assumptions and desire for evacuation, research shows the public's priorities to be rational and appropriate. The public’s experience of fire is vastly different to that of the professionals involved in the planning for and responding to fire.

Official policy and attitudes of the Technical Committee are most singularly directed at avoiding the risk when the public encounters a fire. This is well meaning but the research has shown that this DOES

NOT I REPEAT DOES NOT align with the publics' attitude or the ability of the general public. The belief that 'undesirable' behavior can be changed by advice, campaigns or other measures has been shown to be inaccurate. The paternalistic approach by which government and the building safety regulatory sector seek to change human behavior by removing proven and effective appliances such as portable fire extinguishers is WRONG. However, the building safety regulatory sector continue this approach despite the evidence that public behaviors are safe, effective, and largely unaltered by current guidance and campaigns rather than providing appropriate safety devices for use by the public. A portable fire extinguisher is an effective item of fire protection which allows for small fires to be tackled by the occupants of a building and saves 100s of thousands of dollars in property loss.

Concerns have been indicted regarding the requirement for training. Training in the use of extinguishers is an important issue and one in which opinion appears more influential than the evidence. Whether purchased for a private dwelling or provided through regulatory processes, there is no mandatory requirement for training to use an extinguisher, and studies do not reveal training to be a requirement for their safe or effective use. In fact, the available data and studies demonstrate the opposite to be the case.

The Technical Committee should also note that portable fire extinguishers are designed for the novice user. Although, training is recommended for proper use and technique and is wide available through a variety of resources including at online training; there are no specified training requirements even under OSHA unless that is an assigned duty employee by the employer. The proposed requirement is intended as a provision for layered fire protection for the general public and employees for general safety.

Although there is limited data available related to extinguisher use since the removal of portable fire extinguishers in the NIFRS data field, there is little to no data supporting the removal of portable fire extinguishers and sole reliance on building fire sprinkler systems. Limiting a fire to the smallest area within a building is a sensible aspiration.

Cost has been another point of contention. A study by Richard Bukowski in 2014, the life cycle cost of portable fire extinguishers was determined to be between one and a half and four cents per foot annually; if coverage could be maximized to that allowable by code, the cost drops to between a half cent and one cent per foot annually. It's unlikely that any other layer of fire protection is so cost-effective.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it's small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public's priorities and judgment for fight or flight are rational and appropriate.

Related Item

• Public Input No. 393-NFPA 101-2021

Submitter Information Verification

Submitter Full Name:	Marvin Garriss
Organization:	Synergy Consortium Group, LLC

Affiliation: The National Association of State Fire Marshals, The International Fire Marshal's Association - Georgia Chapter / The Georgia Fire Prevention Association and Fire Equipment Manufacturers' Association

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 28 17:29:21 EDT 2022

Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of not providing fire extinguishers is to allow people to escape and not try to extinguish the fire, allowing trained personnel to handle the fire. The requirement for extinguishers also adds a requirement for the building owner to provide training as well as maintenance. Providing fire extinguishers is a challenge based on cost of providing and maintaining them. There are also instances of misuse by the occupants. The code does not restrict the use of fire extinguishers, therefore fire extinguishers can be added but are not required to be added. The added substantiation provided by the submitter does not provide a reason for the technical committee to change it's decision from the first draft meeting.

Public Comment No. 185-NFPA 101-2022 [Section No. 29.3.5.8]

29.3.5.8

~~In buildings other than those protected throughout with an approved, supervised automatic sprinkler system in accordance with~~ ~~29.3.5.3~~ ~~, portable~~ Portable fire extinguishers shall be provided as specified in Section 9.9 in hazardous areas addressed by 29.3.2.2.

Statement of Problem and Substantiation for Public Comment

A 2013 NFPA Report: “U.S. Experience with Sprinklers” reports that there were 48,460 reported structure fires annually in buildings equipped with sprinkler systems between 2007-2011, and 40,440 (83 percent) never grew large enough to activate the system. Based on this report alone, it’s clear that people are reacting to small fires and extinguishing them prior to sprinkler activation. Limiting a fire to the smallest area within a building is a sensible aspiration.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it’s small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public’s priorities and judgment for fight or flight are rational and appropriate.

Under the Scope of the Life Safety Code, Subsection 1.1.2 entitled, “Danger to Life form Fire,” the Code states the following: “The Code addresses those construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire.” Further, it states in Subsection 1.1.4 entitled, “Other Fire-Related Considerations,” the following: “The Code addresses other considerations that are essential to life safety in recognition of the fact that life safety is more than a matter of egress. The Code also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire.”

Studies of building fires indicate that occupants typically exhibit altruistic behavior toward others. Human response to a threatening situation might follow one of a variety of behaviors. Individuals might choose to investigate, sound an alarm, assist with rescue, seek help, or flee. Such actions constitute normal behavior, even when taken collectively. Most people avoid direct contact with a fire while undertaking another action.

There is a fundamental discrepancy between official/policy assumptions and the public in relation to priorities in the event of a fire. Government and professionals focus on avoiding injuries and see that as the sole aspiration, in the pursuit of which everything else is secondary. In contrast, the public have a wide and largely unrecognized range of priorities when encountering a fire, based on their individual circumstances. These include: the avoidance of embarrassment/inconvenience; mitigating the impact of damage to the property, e.g. avoiding the risk of being unable to remain in their place of business;

and their concern for the wellbeing of other people. Each are invested by different aspirations in the fire safety ecosystem.

A desire to achieve their self-appointed tasks is a strong motivation for the public's behavior when encountering a fire. For most, this will involve an active response of on average five actions, although for some it will be as many as 11. This includes investigating the initial cues and tackling the fire, often using improvised means. They are usually successful in doing so, with 70% to 80% of fires dealt with by the public without requiring professional assistance. It is important to note that in doing so, they are willingly acting against official advice and are not being coerced into this. The evidence shows the public to be effective and capable in tackling fires, even in the absence of any professional support, or often without specialized equipment. This is supported by the pioneering studies of the public experience of dwelling fires undertaken by Bryan (1977) and Wood (1972) in the USA and UK, respectively. Their studies supported by their findings that the public did undertake a range of self-appointed tasks including investigating and tackling fires. Recent studies have confirmed similar findings and these behaviors appear consistent over time.

The evidence further identifies that the public is willing and will accept minor consequences in their pursuit of achieving personal humanistic priorities and instinct. Concern for people, pets and possessions are strong and established drivers of behavior in the event of a fire. Therefore, this should be no surprise to see it as an influential feature of most individual's response to a fire.

A 2003 UK survey found that across all categories of location, extinguishers were successful in extinguishing 79.9% of fires. Note: Private houses accounted for only 3.3% of extinguisher use. It reported that 58.6% were operated by trained staff, 36.4% were operated by untrained staff and in 5% of incidents, this was unknown.

Data from the National Association of Fire Equipment Distributors (NAFED) provides even more robust validation of the influence of fire extinguishers as used by 'ordinary civilians. Their research and data indicate, "Of 13,221 fire incidents reported, portable fire extinguishers successfully extinguished 12,505 fires (95%)." (NAFED 2010: 2) The combined results of the 34 years of data are based on the performance of 32,756 fire extinguishers used on 13,453 incidents.

Fortunately, most people encountering a fire will avoid any injury or will be exposed to a low, and often considered risk of a minor injury at worst. This is not a matter of luck but due to a combination of their own abilities and to the low level of risk presented by most fires individuals would choose to fight at the incipient stage. A 2015 study identified that there was a disconnect between the fire service/government and the public in terms of what they referred to as 'risk tolerance'. This was most evident in attitude to injuries. Official policy seems to place avoidance of any injury as its highest priority and assumes this to also be the public's main motivation and enough to dictate any response to the discovery of a fire. However, the same study found that almost all those who incurred a minor injury accepted it as a reasonable cost in relation to pursuing or achieving their personal priorities. Further, they stated, in hindsight, they would do the same again.

It should be noted that numerous every day and discretionary activities carry similar or higher levels of risk to those resulting from using an extinguisher. Do-It-Yourself and sport for example are frequently responsible for injuries or even fatalities. In response, the government and industry seek to help make products safer or provide advice. This is preferred to denying people the option to participate in either activity by withdrawing public access to tools or sports equipment. The benefits achieved by the public using extinguishers are significant, given the potential for a fire to otherwise lead to detrimental and life-changing outcomes. A low and calculated level of personal risk willingly accepted by an individual tackling a fire can avoid, or reduce, a much higher risk to others should they ignore the fire and allow it to develop. Where current guidance discourages the provision of extinguishers in public spaces, this policy is neither supported by the evidence or justifiable through a consensus from the public. Rather it is imposed on them and is inconsistent with other approaches to public health.

The fire service's response time to structure fires has increased significantly over the past 25 years for several reasons like traffic, infrastructures, and lately staffing. Hence, the ability for the early interventions of the public are likely to be the most significant determinant of the outcome of a fire event. Most people do respond appropriately, and the literature confirms that they do not panic. Typically, most people are at risk of a minor injury at worst, due to the low risk from the fire and their own ability to assess and act in accordance with the situation.

A significant amount of data has been collected to support the requirement for portable extinguishers, including: WPI/EKU Study: “Ordinary People and the Effective Operation of Fire Extinguishers”, which clearly showed that the vast majority of people who have never used an extinguisher can operate one safely and effectively. This willingness of the public to accept minor injuries to protect individuals, the facility or their personal property is supported by literature and data and shows these to be well established behaviors which policy makers need to work with, rather than against.
Reflecting official policy, national and local fire safety messaging has, for some time, urged the public, on discovering a fire in the home, to “Get out, stay out”, “Don’t put yourself at risk” and ‘Leave it to the professionals.” This paternalistic messaging confirms the government policy makers and fire services’ belief that a professional response is the only intervention capable of safely tackling fires. Again, this starkly contrasts with the reality that between 70% and 80% of dwelling fires are tackled effectively and at low risk, by the public. The policy also fails to accord with the public who have been shown to be tolerant, or accepting, of the incurrence of minor injuries in pursuit of their personal priorities.

Surveys from the National Association of Fire Equipment Distributors (NAFED) in America reveals the same trend of public firefighting, with even higher percentages not needing the fire service. “In both the 1979 and 1985 surveys, the fire department was only called for 13% of the reported fires. In the 1996 survey, the fire department was called in 24% of the reported fires. However, in the 2010 survey the number dropped to 17% of the time’. And ‘These results are not unique to NAFED surveys. A 1978 publication by the U.S. Department of Commerce stated that about 90% of fires in households are not reported, based on their survey of 33,000 fires.” (NAFED, 2010: 9)

The public are likely to encounter a fire that is relatively small and often contained to the item first ignited. They are often the ones present when fire starts. In summary, there is a significant difference between official assumptions/guidance and actual public behavior. However, the government and FRS seek to deter this behavior, and, in singularly promoting there, “Get out’ message,” and remove the simple yet potential life saving devices in sprinklered buildings.

A recent study also showed that the public do not just get out, with 49% never leaving the property during the fire. While this may surprise or concern many professionals, it is likely to be explained by a difference between the fire as perceived by professionals and the lived experience of the public. There is nothing to suggest that the public routinely take unnecessary risks. A more likely explanation is that the fire was small and not sufficiently well-developed to pose an imminent injury or life threat. As such, they were able to remain in the premises safely and relatively comfortably, which is supported by the evidence in relation to the majority of fires not spreading beyond the item first ignited or the room of origin. Inclement weather or other factors may also make remaining in the premises a safer or more comfortable option. Fires, like other emergencies, must also be understood in human terms.

The concept of trading off portable extinguishers in sprinklered buildings has been largely abandoned by fire protection principles. NFPA 10 states in subsection 5.1.2, “The selection of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.” Other codes, and other occupancy chapters have abandoned this concept in recognition of the fact that portable extinguishers are a valuable, cost-effective layer of fire protection, and are intended for a different purpose than sprinklers. Recognition of the valuable role of extinguishers came from a 2003 report which concluded, ‘Fire extinguishers are designed to prevent relatively minor incidents becoming major conflagrations.’ It is, of course, difficult to prove how many and which fires would have developed to pose a serious risk if not tackled and contained early on. Events such as the Grenfell fire are a reminder of the consequences when this happens.

The National Fire Codes of both NFPA and the ICC require portable fire extinguishers in all occupancy classes including storage which addresses property protection and property loss as well as, the safety of the building occupants. Fire safety is grounded in the engineering discipline which brings many strengths to codes requirements, but it is insufficient, and fire safety effectiveness is limited by ignoring the social sciences of human behavior. It is important to appreciate that while different to official assumptions and desire for evacuation, research shows the public's priorities to be rational and appropriate. The public’s experience of fire is vastly different to that of the professionals involved in the planning for and responding to fire.

Official policy and attitudes of the Technical Committee are most singularly directed at avoiding the risk when the public encounters a fire. This is well meaning but the research has shown that this DOES

NOT I REPEAT DOES NOT align with the publics' attitude or the ability of the general public. The belief that 'undesirable' behavior can be changed by advice, campaigns or other measures has been shown to be inaccurate. The paternalistic approach by which government and the building safety regulatory sector seek to change human behavior by removing proven and effective appliances such as portable fire extinguishers is WRONG. However, the building safety regulatory sector continue this approach despite the evidence that public behaviors are safe, effective, and largely unaltered by current guidance and campaigns rather than providing appropriate safety devices for use by the public. A portable fire extinguisher is an effective item of fire protection which allows for small fires to be tackled by the occupants of a building and saves 100s of thousands of dollars in property loss.

Concerns have been indicted regarding the requirement for training. Training in the use of extinguishers is an important issue and one in which opinion appears more influential than the evidence. Whether purchased for a private dwelling or provided through regulatory processes, there is no mandatory requirement for training to use an extinguisher, and studies do not reveal training to be a requirement for their safe or effective use. In fact, the available data and studies demonstrate the opposite to be the case.

The Technical Committee should also note that portable fire extinguishers are designed for the novice user. Although, training is recommended for proper use and technique and is wide available through a variety of resources including at online training; there are no specified training requirements even under OSHA unless that is an assigned duty employee by the employer. The proposed requirement is intended as a provision for layered fire protection for the general public and employees for general safety.

Although there is limited data available related to extinguisher use since the removal of portable fire extinguishers in the NIFRS data field, there is little to no data supporting the removal of portable fire extinguishers and sole reliance on building fire sprinkler systems. Limiting a fire to the smallest area within a building is a sensible aspiration.

Cost has been another point of contention. A study by Richard Bukowski in 2014, the life cycle cost of portable fire extinguishers was determined to be between one and a half and four cents per foot annually; if coverage could be maximized to that allowable by code, the cost drops to between a half cent and one cent per foot annually. It's unlikely that any other layer of fire protection is so cost-effective.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it's small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public's priorities and judgment for fight or flight are rational and appropriate.
This proposal is to provide for the Technical Committee the ability to at a minimum place the requirement for portable fire extinguishers into hazardous areas only.

Related Item

• Public Input No. 393-NFPA 101-2021

Submitter Information Verification

Submitter Full Name: Marvin Garriss

Organization: Synergy Consortium Group, LLC

Affiliation: The National Association of State Fire Marshals, The International Fire Marshal's Association - Georgia Chapter / The Georgia Fire Prevention Association and Fire Equipment Manufacturers' Association

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 28 17:32:29 EDT 2022

Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of not providing fire extinguishers is to allow people to escape and not try to extinguish the fire, allowing trained personnel to handle the fire. The requirement for extinguishers also adds a requirement for the building owner to provide training as well as maintenance. Providing fire extinguishers is a challenge based on cost of providing and maintaining them. There are also instances of misuse by the occupants. The code does not restrict the use of fire extinguishers, therefore fire extinguishers can be added but are not required to be added. The added substantiation provided by the submitter does not provide a reason for the technical committee to change it's decision from the first draft meeting.

Public Comment No. 148-NFPA 101-2022 [Section No. 29.4.2]

29.4.2 Alcohol-Based Hand-Rub Dispensers.

The installation and maintenance of Alcohol-based hand-rub dispensers ~~in accordance with~~ and the storage of alcohol-based hand rub solutions in accordance with 8.7.3. ~~3~~ 3 shall be permitted.

Statement of Problem and Substantiation for Public Comment

The changes to the requirements do not improve the current requirements. They also do not change the requirements but restate the same requirements. A task group has been formed to coordinate with the NFPA 30 and NFPA 1 Alcohol Task Group

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 143-NFPA 101-2022 [New Section after 11.1.8]	
Public Comment No. 144-NFPA 101-2022 [Section No. 12.4.6]	
Public Comment No. 145-NFPA 101-2022 [Section No. 13.4.6]	
Public Comment No. 146-NFPA 101-2022 [Section No. 26.3.2.1]	
Public Comment No. 147-NFPA 101-2022 [Section No. 28.4.2]	
Public Comment No. 149-NFPA 101-2022 [Section No. 30.4.3]	

Related Item

• PI 354

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 23 16:05:23 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Accepted
Resolution: SR-6630-NFPA 101-2022

Statement: A task group has been formed to coordinate with the NFPA 30 and NFPA 1 Alcohol Task Group.

Providing a pointer to section 8.7.3.3 will provide a direct link to all the requirements needed for safe installation, use, and maintenance of alcohol based hand rub dispensers as well as the storage of any alcohol based hand rub materials not in use.

Public Comment No. 186-NFPA 101-2022 [Section No. 30.3.5.6]

30.3.5.6 Portable Fire Extinguishers.

Portable fire extinguishers shall be provided in accordance with Section 9.9~~ shall be provided in hazardous areas addressed by 30.3.2.1 , unless the building is protected throughout with an approved, supervised automatic sprinkler system in accordance with 30.3.5.1.1 .~~ .

Statement of Problem and Substantiation for Public Comment

A 2013 NFPA Report: “U.S. Experience with Sprinklers” reports that there were 48,460 reported structure fires annually in buildings equipped with sprinkler systems between 2007-2011, and 40,440 (83 percent) never grew large enough to activate the system. Based on this report alone, it’s clear that people are reacting to small fires and extinguishing them prior to sprinkler activation. Limiting a fire to the smallest area within a building is a sensible aspiration.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it’s small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public’s priorities and judgment for fight or flight are rational and appropriate.

Under the Scope of the Life Safety Code, Subsection 1.1.2 entitled, “Danger to Life form Fire,” the Code states the following: “The Code addresses those construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire.” Further, it states in Subsection 1.1.4 entitled, “Other Fire-Related Considerations,” the following: “The Code addresses other considerations that are essential to life safety in recognition of the fact that life safety is more than a matter of egress. The Code also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire.”

Studies of building fires indicate that occupants typically exhibit altruistic behavior toward others. Human response to a threatening situation might follow one of a variety of behaviors. Individuals might choose to investigate, sound an alarm, assist with rescue, seek help, or flee. Such actions constitute normal behavior, even when taken collectively. Most people avoid direct contact with a fire while undertaking another action.

There is a fundamental discrepancy between official/policy assumptions and the public in relation to priorities in the event of a fire. Government and professionals focus on avoiding injuries and see that as the sole aspiration, in the pursuit of which everything else is secondary. In contrast, the public have a wide and largely unrecognized range of priorities when encountering a fire, based on their individual circumstances. These include: the avoidance of embarrassment/inconvenience; mitigating the impact of damage to the property, e.g. avoiding the risk of being unable to remain in their place of business;

and their concern for the wellbeing of other people. Each are invested by different aspirations in the fire safety ecosystem.

A desire to achieve their self-appointed tasks is a strong motivation for the public's behavior when encountering a fire. For most, this will involve an active response of on average five actions, although for some it will be as many as 11. This includes investigating the initial cues and tackling the fire, often using improvised means. They are usually successful in doing so, with 70% to 80% of fires dealt with by the public without requiring professional assistance. It is important to note that in doing so, they are willingly acting against official advice and are not being coerced into this. The evidence shows the public to be effective and capable in tackling fires, even in the absence of any professional support, or often without specialized equipment. This is supported by the pioneering studies of the public experience of dwelling fires undertaken by Bryan (1977) and Wood (1972) in the USA and UK, respectively. Their studies supported by their findings that the public did undertake a range of self-appointed tasks including investigating and tackling fires. Recent studies have confirmed similar findings and these behaviors appear consistent over time.

The evidence further identifies that the public is willing and will accept minor consequences in their pursuit of achieving personal humanistic priorities and instinct. Concern for people, pets and possessions are strong and established drivers of behavior in the event of a fire. Therefore, this should be no surprise to see it as an influential feature of most individual's response to a fire.

A 2003 UK survey found that across all categories of location, extinguishers were successful in extinguishing 79.9% of fires. Note: Private houses accounted for only 3.3% of extinguisher use. It reported that 58.6% were operated by trained staff, 36.4% were operated by untrained staff and in 5% of incidents, this was unknown.

Data from the National Association of Fire Equipment Distributors (NAFED) provides even more robust validation of the influence of fire extinguishers as used by 'ordinary civilians. Their research and data indicate, "Of 13,221 fire incidents reported, portable fire extinguishers successfully extinguished 12,505 fires (95%)." (NAFED 2010: 2) The combined results of the 34 years of data are based on the performance of 32,756 fire extinguishers used on 13,453 incidents.

Fortunately, most people encountering a fire will avoid any injury or will be exposed to a low, and often considered risk of a minor injury at worst. This is not a matter of luck but due to a combination of their own abilities and to the low level of risk presented by most fires individuals would choose to fight at the incipient stage. A 2015 study identified that there was a disconnect between the fire service/government and the public in terms of what they referred to as 'risk tolerance'. This was most evident in attitude to injuries. Official policy seems to place avoidance of any injury as its highest priority and assumes this to also be the public's main motivation and enough to dictate any response to the discovery of a fire. However, the same study found that almost all those who incurred a minor injury accepted it as a reasonable cost in relation to pursuing or achieving their personal priorities. Further, they stated, in hindsight, they would do the same again.

It should be noted that numerous every day and discretionary activities carry similar or higher levels of risk to those resulting from using an extinguisher. Do-It-Yourself and sport for example are frequently responsible for injuries or even fatalities. In response, the government and industry seek to help make products safer or provide advice. This is preferred to denying people the option to participate in either activity by withdrawing public access to tools or sports equipment. The benefits achieved by the public using extinguishers are significant, given the potential for a fire to otherwise lead to detrimental and life-changing outcomes. A low and calculated level of personal risk willingly accepted by an individual tackling a fire can avoid, or reduce, a much higher risk to others should they ignore the fire and allow it to develop. Where current guidance discourages the provision of extinguishers in public spaces, this policy is neither supported by the evidence or justifiable through a consensus from the public. Rather it is imposed on them and is inconsistent with other approaches to public health.

The fire service's response time to structure fires has increased significantly over the past 25 years for several reasons like traffic, infrastructures, and lately staffing. Hence, the ability for the early interventions of the public are likely to be the most significant determinant of the outcome of a fire event. Most people do respond appropriately, and the literature confirms that they do not panic. Typically, most people are at risk of a minor injury at worst, due to the low risk from the fire and their own ability to assess and act in accordance with the situation.

A significant amount of data has been collected to support the requirement for portable extinguishers, including: WPI/EKU Study: “Ordinary People and the Effective Operation of Fire Extinguishers”, which clearly showed that the vast majority of people who have never used an extinguisher can operate one safely and effectively. This willingness of the public to accept minor injuries to protect individuals, the facility or their personal property is supported by literature and data and shows these to be well established behaviors which policy makers need to work with, rather than against.
Reflecting official policy, national and local fire safety messaging has, for some time, urged the public, on discovering a fire in the home, to “Get out, stay out”, “Don’t put yourself at risk” and ‘Leave it to the professionals.” This paternalistic messaging confirms the government policy makers and fire services’ belief that a professional response is the only intervention capable of safely tackling fires. Again, this starkly contrasts with the reality that between 70% and 80% of dwelling fires are tackled effectively and at low risk, by the public. The policy also fails to accord with the public who have been shown to be tolerant, or accepting, of the incurrence of minor injuries in pursuit of their personal priorities.

Surveys from the National Association of Fire Equipment Distributors (NAFED) in America reveals the same trend of public firefighting, with even higher percentages not needing the fire service. “In both the 1979 and 1985 surveys, the fire department was only called for 13% of the reported fires. In the 1996 survey, the fire department was called in 24% of the reported fires. However, in the 2010 survey the number dropped to 17% of the time’. And ‘These results are not unique to NAFED surveys. A 1978 publication by the U.S. Department of Commerce stated that about 90% of fires in households are not reported, based on their survey of 33,000 fires.” (NAFED, 2010: 9)

The public are likely to encounter a fire that is relatively small and often contained to the item first ignited. They are often the ones present when fire starts. In summary, there is a significant difference between official assumptions/guidance and actual public behavior. However, the government and FRS seek to deter this behavior, and, in singularly promoting there, “Get out’ message,” and remove the simple yet potential life saving devices in sprinklered buildings.

A recent study also showed that the public do not just get out, with 49% never leaving the property during the fire. While this may surprise or concern many professionals, it is likely to be explained by a difference between the fire as perceived by professionals and the lived experience of the public. There is nothing to suggest that the public routinely take unnecessary risks. A more likely explanation is that the fire was small and not sufficiently well-developed to pose an imminent injury or life threat. As such, they were able to remain in the premises safely and relatively comfortably, which is supported by the evidence in relation to the majority of fires not spreading beyond the item first ignited or the room of origin. Inclement weather or other factors may also make remaining in the premises a safer or more comfortable option. Fires, like other emergencies, must also be understood in human terms.

The concept of trading off portable extinguishers in sprinklered buildings has been largely abandoned by fire protection principles. NFPA 10 states in subsection 5.1.2, “The selection of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.” Other codes, and other occupancy chapters have abandoned this concept in recognition of the fact that portable extinguishers are a valuable, cost-effective layer of fire protection, and are intended for a different purpose than sprinklers. Recognition of the valuable role of extinguishers came from a 2003 report which concluded, ‘Fire extinguishers are designed to prevent relatively minor incidents becoming major conflagrations.’ It is, of course, difficult to prove how many and which fires would have developed to pose a serious risk if not tackled and contained early on. Events such as the Grenfell fire are a reminder of the consequences when this happens.

The National Fire Codes of both NFPA and the ICC require portable fire extinguishers in all occupancy classes including storage which addresses property protection and property loss as well as, the safety of the building occupants. Fire safety is grounded in the engineering discipline which brings many strengths to codes requirements, but it is insufficient, and fire safety effectiveness is limited by ignoring the social sciences of human behavior. It is important to appreciate that while different to official assumptions and desire for evacuation, research shows the public's priorities to be rational and appropriate. The public’s experience of fire is vastly different to that of the professionals involved in the planning for and responding to fire.

Official policy and attitudes of the Technical Committee are most singularly directed at avoiding the risk when the public encounters a fire. This is well meaning but the research has shown that this DOES

NOT I REPEAT DOES NOT align with the publics' attitude or the ability of the general public. The belief that 'undesirable' behavior can be changed by advice, campaigns or other measures has been shown to be inaccurate. The paternalistic approach by which government and the building safety regulatory sector seek to change human behavior by removing proven and effective appliances such as portable fire extinguishers is WRONG. However, the building safety regulatory sector continue this approach despite the evidence that public behaviors are safe, effective, and largely unaltered by current guidance and campaigns rather than providing appropriate safety devices for use by the public. A portable fire extinguisher is an effective item of fire protection which allows for small fires to be tackled by the occupants of a building and saves 100s of thousands of dollars in property loss.

Concerns have been indicted regarding the requirement for training. Training in the use of extinguishers is an important issue and one in which opinion appears more influential than the evidence. Whether purchased for a private dwelling or provided through regulatory processes, there is no mandatory requirement for training to use an extinguisher, and studies do not reveal training to be a requirement for their safe or effective use. In fact, the available data and studies demonstrate the opposite to be the case.

The Technical Committee should also note that portable fire extinguishers are designed for the novice user. Although, training is recommended for proper use and technique and is wide available through a variety of resources including at online training; there are no specified training requirements even under OSHA unless that is an assigned duty employee by the employer. The proposed requirement is intended as a provision for layered fire protection for the general public and employees for general safety.

Although there is limited data available related to extinguisher use since the removal of portable fire extinguishers in the NIFRS data field, there is little to no data supporting the removal of portable fire extinguishers and sole reliance on building fire sprinkler systems. Limiting a fire to the smallest area within a building is a sensible aspiration.

Cost has been another point of contention. A study by Richard Bukowski in 2014, the life cycle cost of portable fire extinguishers was determined to be between one and a half and four cents per foot annually; if coverage could be maximized to that allowable by code, the cost drops to between a half cent and one cent per foot annually. It's unlikely that any other layer of fire protection is so cost-effective.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it's small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public's priorities and judgment for fight or flight are rational and appropriate.

Related Item

• Public Input No. 386-NFPA 101-2021

Submitter Information Verification

Submitter Full Name:	Marvin Garriss
Organization:	Synergy Consortium Group, LLC

Affiliation: The National Association of State Fire Marshals, The International Fire Marshal's Association - Georgia Chapter / The Georgia Fire Prevention Association and Fire Equipment Manufacturers' Association

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 28 17:37:48 EDT 2022

Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of not providing fire extinguishers is to allow people to escape and not try to extinguish the fire, allowing trained personnel to handle the fire. The requirement for extinguishers also adds a requirement for the building owner to provide training as well as maintenance. Providing fire extinguishers is a challenge based on cost of providing and maintaining them. There are also instances of misuse by the occupants. The code does not restrict the use of fire extinguishers, therefore fire extinguishers can be added but are not required to be added. The added substantiation provided by the submitter does not provide a reason for the technical committee to change it's decision from the first draft meeting.

Public Comment No. 187-NFPA 101-2022 [Section No. 30.3.5.6]

30.3.5.6 Portable Fire Extinguishers.

Portable fire extinguishers in accordance with Section 9.9 shall be provided in hazardous areas addressed by 30.3.2.1~~, unless the building is protected throughout with an approved, supervised automatic sprinkler system in accordance with 30~~ . ~~3.5.1.1.~~

Statement of Problem and Substantiation for Public Comment

A 2013 NFPA Report: “U.S. Experience with Sprinklers” reports that there were 48,460 reported structure fires annually in buildings equipped with sprinkler systems between 2007-2011, and 40,440 (83 percent) never grew large enough to activate the system. Based on this report alone, it’s clear that people are reacting to small fires and extinguishing them prior to sprinkler activation. Limiting a fire to the smallest area within a building is a sensible aspiration.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it’s small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public’s priorities and judgment for fight or flight are rational and appropriate.

Under the Scope of the Life Safety Code, Subsection 1.1.2 entitled, “Danger to Life form Fire,” the Code states the following: “The Code addresses those construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire.” Further, it states in Subsection 1.1.4 entitled, “Other Fire-Related Considerations,” the following: “The Code addresses other considerations that are essential to life safety in recognition of the fact that life safety is more than a matter of egress. The Code also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire.”

Studies of building fires indicate that occupants typically exhibit altruistic behavior toward others. Human response to a threatening situation might follow one of a variety of behaviors. Individuals might choose to investigate, sound an alarm, assist with rescue, seek help, or flee. Such actions constitute normal behavior, even when taken collectively. Most people avoid direct contact with a fire while undertaking another action.

There is a fundamental discrepancy between official/policy assumptions and the public in relation to priorities in the event of a fire. Government and professionals focus on avoiding injuries and see that as the sole aspiration, in the pursuit of which everything else is secondary. In contrast, the public have a wide and largely unrecognized range of priorities when encountering a fire, based on their individual circumstances. These include: the avoidance of embarrassment/inconvenience; mitigating the impact of damage to the property, e.g. avoiding the risk of being unable to remain in their place of business;

and their concern for the wellbeing of other people. Each are invested by different aspirations in the fire safety ecosystem.

A desire to achieve their self-appointed tasks is a strong motivation for the public's behavior when encountering a fire. For most, this will involve an active response of on average five actions, although for some it will be as many as 11. This includes investigating the initial cues and tackling the fire, often using improvised means. They are usually successful in doing so, with 70% to 80% of fires dealt with by the public without requiring professional assistance. It is important to note that in doing so, they are willingly acting against official advice and are not being coerced into this. The evidence shows the public to be effective and capable in tackling fires, even in the absence of any professional support, or often without specialized equipment. This is supported by the pioneering studies of the public experience of dwelling fires undertaken by Bryan (1977) and Wood (1972) in the USA and UK, respectively. Their studies supported by their findings that the public did undertake a range of self-appointed tasks including investigating and tackling fires. Recent studies have confirmed similar findings and these behaviors appear consistent over time.

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A 2003 UK survey found that across all categories of location, extinguishers were successful in extinguishing 79.9% of fires. Note: Private houses accounted for only 3.3% of extinguisher use. It reported that 58.6% were operated by trained staff, 36.4% were operated by untrained staff and in 5% of incidents, this was unknown.

Data from the National Association of Fire Equipment Distributors (NAFED) provides even more robust validation of the influence of fire extinguishers as used by 'ordinary civilians. Their research and data indicate, "Of 13,221 fire incidents reported, portable fire extinguishers successfully extinguished 12,505 fires (95%)." (NAFED 2010: 2) The combined results of the 34 years of data are based on the performance of 32,756 fire extinguishers used on 13,453 incidents.

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It should be noted that numerous every day and discretionary activities carry similar or higher levels of risk to those resulting from using an extinguisher. Do-It-Yourself and sport for example are frequently responsible for injuries or even fatalities. In response, the government and industry seek to help make products safer or provide advice. This is preferred to denying people the option to participate in either activity by withdrawing public access to tools or sports equipment. The benefits achieved by the public using extinguishers are significant, given the potential for a fire to otherwise lead to detrimental and life-changing outcomes. A low and calculated level of personal risk willingly accepted by an individual tackling a fire can avoid, or reduce, a much higher risk to others should they ignore the fire and allow it to develop. Where current guidance discourages the provision of extinguishers in public spaces, this policy is neither supported by the evidence or justifiable through a consensus from the public. Rather it is imposed on them and is inconsistent with other approaches to public health.

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A significant amount of data has been collected to support the requirement for portable extinguishers, including: WPI/EKU Study: “Ordinary People and the Effective Operation of Fire Extinguishers”, which clearly showed that the vast majority of people who have never used an extinguisher can operate one safely and effectively. This willingness of the public to accept minor injuries to protect individuals, the facility or their personal property is supported by literature and data and shows these to be well established behaviors which policy makers need to work with, rather than against.
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A recent study also showed that the public do not just get out, with 49% never leaving the property during the fire. While this may surprise or concern many professionals, it is likely to be explained by a difference between the fire as perceived by professionals and the lived experience of the public. There is nothing to suggest that the public routinely take unnecessary risks. A more likely explanation is that the fire was small and not sufficiently well-developed to pose an imminent injury or life threat. As such, they were able to remain in the premises safely and relatively comfortably, which is supported by the evidence in relation to the majority of fires not spreading beyond the item first ignited or the room of origin. Inclement weather or other factors may also make remaining in the premises a safer or more comfortable option. Fires, like other emergencies, must also be understood in human terms.

The concept of trading off portable extinguishers in sprinklered buildings has been largely abandoned by fire protection principles. NFPA 10 states in subsection 5.1.2, “The selection of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.” Other codes, and other occupancy chapters have abandoned this concept in recognition of the fact that portable extinguishers are a valuable, cost-effective layer of fire protection, and are intended for a different purpose than sprinklers. Recognition of the valuable role of extinguishers came from a 2003 report which concluded, ‘Fire extinguishers are designed to prevent relatively minor incidents becoming major conflagrations.’ It is, of course, difficult to prove how many and which fires would have developed to pose a serious risk if not tackled and contained early on. Events such as the Grenfell fire are a reminder of the consequences when this happens.

The National Fire Codes of both NFPA and the ICC require portable fire extinguishers in all occupancy classes including storage which addresses property protection and property loss as well as, the safety of the building occupants. Fire safety is grounded in the engineering discipline which brings many strengths to codes requirements, but it is insufficient, and fire safety effectiveness is limited by ignoring the social sciences of human behavior. It is important to appreciate that while different to official assumptions and desire for evacuation, research shows the public's priorities to be rational and appropriate. The public’s experience of fire is vastly different to that of the professionals involved in the planning for and responding to fire.

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The Technical Committee should also note that portable fire extinguishers are designed for the novice user. Although, training is recommended for proper use and technique and is wide available through a variety of resources including at online training; there are no specified training requirements even under OSHA unless that is an assigned duty employee by the employer. The proposed requirement is intended as a provision for layered fire protection for the general public and employees for general safety.

Although there is limited data available related to extinguisher use since the removal of portable fire extinguishers in the NIFRS data field, there is little to no data supporting the removal of portable fire extinguishers and sole reliance on building fire sprinkler systems. Limiting a fire to the smallest area within a building is a sensible aspiration.

Cost has been another point of contention. A study by Richard Bukowski in 2014, the life cycle cost of portable fire extinguishers was determined to be between one and a half and four cents per foot annually; if coverage could be maximized to that allowable by code, the cost drops to between a half cent and one cent per foot annually. It's unlikely that any other layer of fire protection is so cost-effective.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it's small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public's priorities and judgment for fight or flight are rational and appropriate.
This proposal is to provide for the Technical Committee the ability to at a minimum place the requirement for portable fire extinguishers into hazardous areas only.

Related Item

• Public Input No. 386-NFPA 101-2021

Submitter Information Verification

Submitter Full Name: Marvin Garriss

Organization: Synergy Consortium Group, LLC

Affiliation: The National Association of State Fire Marshals, The International Fire Marshal's Association - Georgia Chapter / The Georgia Fire Prevention Association and Fire Equipment Manufacturers' Association

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 28 17:43:02 EDT 2022

Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of not providing fire extinguishers is to allow people to escape and not try to extinguish the fire, allowing trained personnel to handle the fire. The requirement for extinguishers also adds a requirement for the building owner to provide training as well as maintenance. Providing fire extinguishers is a challenge based on cost of providing and maintaining them. There are also instances of misuse by the occupants. The code does not restrict the use of fire extinguishers, therefore fire extinguishers can be added but are not required to be added. The added substantiation provided by the submitter does not provide a reason for the technical committee to change it's decision from the first draft meeting.

Public Comment No. 149-NFPA 101-2022 [Section No. 30.4.3]

30.4.3 Alcohol-Based Hand-Rub Dispensers.

The installation and maintenance of Alcohol-based hand-rub dispensers ~~in accordance with~~ and the storage of alcohol-based hand rub solutions in accordance with 8.7.3.

~~3~~ 3 shall be permitted . . .

Statement of Problem and Substantiation for Public Comment

The changes to the requirements do not improve the current requirements. They also do not change the requirements but restate the same requirements. A task group has been formed to coordinate with the NFPA 30 and NFPA 1 Alcohol Task Group

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 143-NFPA 101-2022 [New Section after 11.1.8]	
Public Comment No. 144-NFPA 101-2022 [Section No. 12.4.6]	
Public Comment No. 145-NFPA 101-2022 [Section No. 13.4.6]	
Public Comment No. 146-NFPA 101-2022 [Section No. 26.3.2.1]	
Public Comment No. 147-NFPA 101-2022 [Section No. 28.4.2]	
Public Comment No. 148-NFPA 101-2022 [Section No. 29.4.2]	

Related Item

• PI 357

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 23 16:08:45 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Accepted
Resolution: SR-6631-NFPA 101-2022

Statement: A task group has been formed to coordinate with the NFPA 30 and NFPA 1 Alcohol Task Group.

Providing a pointer to section 8.7.3.3 will provide a direct link to all the requirements needed for safe installation, use, and maintenance of alcohol based hand rub dispensers as well as the storage of any alcohol based hand rub materials not in use.

Public Comment No. 218-NFPA 101-2022 [Section No. 30.7.5]

~~**30.7.5** – Valet Trash Collection Services.~~

~~**30.7.5.1** –~~

~~Combustible trash or recycling materials in corridors or on egress balconies awaiting scheduled collection shall be placed completely inside a container that does not exceed a capacity of 15 gal (60 L) in corridors and 22 gal (95 L) on egress balconies.~~

~~**30.7.5.2** –~~

~~Valet trash and recycling containers shall meet all of the following requirements:~~

(1) ~~The containers shall be of liquidtight construction.~~

(2) ~~The containers shall be equipped with lids.~~

(3) ~~The lids shall be in the fully closed position.~~

~~**30.7.5.3** –~~

~~Containers and lids shall be constructed entirely of noncombustible materials or materials that meet a peak rate of heat release not exceeding 300 kW/m ^{2} when tested in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter* , at an incident heat flux of 50 kW/m ^{2} in the horizontal orientation.~~

~~**30.7.5.4** –~~

~~Containers shall not be required to comply with 30.7.5.3 for the following:~~

(1) ~~Containers in sprinklered corridors or egress balconies in buildings provided with a sprinkler system complying with 30.3.5~~

(2) ~~Containers on egress balconies in buildings with noncombustible or limited combustible exteriors.~~

~~**30.7.5.5** –~~

~~Containers shall not obstruct the minimum egress width required by 30.2.3 .~~

~~**30.7.5.6** –~~

~~Containers shall not occupy a corridor for a single period exceeding 18 hours.~~

~~**30.7.5.7** –~~

~~Combustible trash or recycling materials shall not occupy a corridor for a single period exceeding 5 hours.~~

Statement of Problem and Substantiation for Public Comment

Valet Trash is an extremely bod idea and the implication in the text for this section is too focused on the fire dangers which are only part of the problem with the concept of valet trash within the public corridor (sole means of egress) for the vast majority of apartments in a multistory building. It is also a really bad idea relative to the ecological implications, especially the assumption—with a single container—that all trash will be commingled. As a longtime resident of two multistory apartment buildings, one about 60 years old and about 20 storeys high and the other about six year old and about 15 storeys high. Both have dedicated, fire-separated rooms for tenants to use for depositing sorted

trash of which the largest component by volume is paper and the largest component by weight is compostible material. The newer of my two homes has provision for at least four different kinds of trash and is located on each floor (with fire-protected chutes for two trash categories, for landfill and for recycling. This is a superior solution with many benefits related to both fire and other issues.

The benefits above accrue to all occupants of the building. There are some additional benefits that accrue to me as a frequent traveler who, if leaving on a trip that could be days or weeks in duration, is not in a position to retrieve his storage bin from a corridor location after its contents are picked up for collection. Such a corridor bin would have to sit outside the apartment door for times exceeding those stipulated in the rules proposed.

Corridors should not be the modern form of trash disposal in the way that, in more primitive times trash, etc., was simply dumped, from ones window or balcony into the street. This damage the character of the street and the public health of its users. Why are we returning to a relatively barbaric form of handling trash?

Related Item

• First Draft Report

Submitter Information Verification

Submitter Full Name: Jake Pauls
Organization: Jake Pauls Consulting Services
Affiliation: Self
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 31 14:36:32 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The substantiations did not provide enough information to remove the Valet Trash section. The language in the requirement was provided by a task group with a wide range of stakeholders. If there is no language in the code, valet trash is still allowed but there will be no requirements on how it is done.

Public Comment No. 51-NFPA 101-2022 [Section No. 30.7.5]

~~**30.7.5** – Valet Trash Collection Services.~~

~~**30.7.5.1** –~~

~~Combustible trash or recycling materials in corridors or on egress balconies awaiting scheduled collection shall be placed completely inside a container that does not exceed a capacity of 15 gal (60 L) in corridors and 22 gal (95 L) on egress balconies.~~

~~**30.7.5.2** –~~

~~Valet trash and recycling containers shall meet all of the following requirements:~~

(1) ~~The containers shall be of liquidtight construction.~~

(2) ~~The containers shall be equipped with lids.~~

(3) ~~The lids shall be in the fully closed position.~~

~~**30.7.5.3** –~~

~~Containers and lids shall be constructed entirely of noncombustible materials or materials that meet a peak rate of heat release not exceeding 300 kW/m ^{2} when tested in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter* , at an incident heat flux of 50 kW/m ^{2} in the horizontal orientation.~~

~~**30.7.5.4** –~~

~~Containers shall not be required to comply with 30.7.5.3 for the following:~~

(1) ~~Containers in sprinklered corridors or egress balconies in buildings provided with a sprinkler system complying with 30.3.5~~

(2) ~~Containers on egress balconies in buildings with noncombustible or limited combustible exteriors.~~

~~**30.7.5.5** –~~

~~Containers shall not obstruct the minimum egress width required by 30.2.3 .~~

~~**30.7.5.6** –~~

~~Containers shall not occupy a corridor for a single period exceeding 18 hours.~~

~~**30.7.5.7** –~~

~~Combustible trash or recycling materials shall not occupy a corridor for a single period exceeding 5 hours.~~

Statement of Problem and Substantiation for Public Comment

The committee has provided no technical substantiation for the proposed change.

The proposed text by the Residential TC has many concerns for AHJ's as well as fire and life safety: The proposed text is in conflict with proven fire safety principles used for many years which prohibit combustible materials in egress corridors. Past fire history has shown how combustibles in the means of egress contributes to fire spread, hampers firefighting efforts, and limits the occupant's ability to egress. Materials, especially combustible materials, are fire fighter safety issues as it creates a new

fire load when stored in the means of egress and may inhibit quick and effective firefighting operations.

For years one of the biggest violations to the code is storage, etc. in the means of egress. This proposal eliminates a basic fire safety of maintaining a clear and unobstructed means of egress for building occupants. The introduction of trash in corridors of any occupancy goes against the basic principles of egress for occupant and creates a fire and life safety, property protection and fire fighter safety hazard, and is in direct violation of section 7.1.10.1 Maintenance. Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency and 7.1.10.2.1 which states 7.1.10.2.1 No furnishings, decorations, or other objects shall obstruct exits or their access thereto, egress therefrom, or visibility thereof. 30 and 31.3.2.1.1 lists trash collection rooms as a hazardous area and requires protection over and above the occupancy requirements. 30 and 31.7.2.2 prohibits contents and furnishings of a highly flammable character from use outside the dwelling unit.

Conflicting provisions on how long the container can occupy the corridor 18 or 5 hours. It appears the TC is permitting the container to be empty in the corridor for 18 hours, trash can only be in the container for 5 hours. This has been noted by the CC. This is unenforceable and again no technical justification has been provided on these timeframes. The timeframe will extend well into the overnight hours which is when fires in residential properties pose the greatest risk.
No fire testing or fire modeling has been performed to justify or validate the proposed requirements in the residential setting.
Many of the provisions are not easily enforced due to the nature of the service.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 52-NFPA 101-2022 [Section No. 31.7.5]	

Related Item

- FR6666

Submitter Information Verification

Submitter Full Name: Steven Sawyer
Organization:
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 07 07:54:53 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The substantiations did not provide enough information to remove the Valet Trash section. The language in the requirement was provided by a task group with a wide range of stakeholders. If there is no language in the code, valet trash is still allowed but there will be no requirements on how it is done.

Public Comment No. 55-NFPA 101-2022 [Section No. 30.7.5]

30.7.5

–

Valet Trash Collection Services.

30.7.5.1 Where permitted by the AHJ, combustible trash or recycling materials shall comply with 30.7.5.

30.7.5.1 –

Combustible trash or recycling materials in corridors or on egress balconies awaiting scheduled collection shall be placed completely inside a container that does not exceed a capacity of 15 gal (60 L) in corridors and 22 gal (95 L) on egress balconies.

30.7.5.2

–

~~Valet~~

Valet trash and recycling containers shall meet all of the following requirements:

- ~~The containers shall be of liquidtight construction.~~
- ~~The containers shall be equipped with lids.~~
- ~~The lids shall be in the fully closed position.~~

~~30.7.5.3~~ –

- ~~Containers in sprinklered corridors or egress balconies in buildings provided with a sprinkler system complying with 30.3.5~~

~~Containers~~

~~(1) Containers and lids shall be constructed entirely of noncombustible materials or materials that meet a peak rate of heat release not exceeding 300 kW/m 2 when tested in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*, at an incident heat flux of 50 kW/m 2 in the horizontal orientation.~~

~~30.7.5.4~~ –

~~Containers shall not be required to comply with 30.7.5.3 for the following:~~

~~(2) The containers shall be of liquidtight construction.~~

~~(3) The containers shall be equipped with lids.~~

~~(4) The lids shall be in the fully closed position.~~

~~(5) Containers shall be placed on the same side of the corridor.~~

~~(6) Containers shall be located so as to not obstruct access to building service and fire protection equipment.~~

~~(7) Containers shall be grouped such that each grouping does not exceed a projected floor area of 400sqin (3.7 m2).~~

~~(8) More than two containers shall be in each grouping.~~

~~(9) The groupings addressed in (7) are separated from each other by a distance of at least 10 ft (3050 mm).~~

~~30.7.5.3 Containers shall not be required to comply with 30.7.5.3 (1) on egress balconies in buildings with noncombustible or limited combustible exteriors.~~

~~30.7.5.~~

~~5~~

~~4 -~~

~~Containers shall not obstruct the minimum egress width required by 30.2.3 .~~

~~30.7.5.6 -~~

~~Containers shall not occupy a corridor for a single period exceeding~~

~~18 hours~~

~~12 hours between the hours of 7am to 7pm .~~

~~30.7.5.7 -~~

~~Combustible trash or recycling materials shall not occupy a corridor for a single period exceeding 5 hours. between the hours of 7am to 7pm .~~

~~30.7.5.8 Building where valet trash collection services are permitted shall have an approved fire sprinkler system installed.~~

Statement of Problem and Substantiation for Public Comment

The committee has provided no technical substantiation for the proposed change.

The proposed text by the Residential TC has many concerns for AHJ's as well as fire and life safety: The proposed text is in conflict with proven fire safety principles used for many years which prohibit combustible materials in egress corridors. Past fire history has shown how combustibles in the means of egress contributes to fire spread, hampers firefighting efforts, and limits the occupant's ability to egress. Materials, especially combustible materials, are fire fighter safety issues as it creates a new fire load when stored in the means of egress and may inhibit quick and effective firefighting operations.

For years one of the biggest violations to the code is storage, etc. in the means of egress. This proposal eliminates a basic fire safety of maintaining a clear and unobstructed means of egress for building occupants. The introduction of trash in corridors of any occupancy goes against the basic principles of egress for occupant and creates a fire and life safety, property protection and fire fighter safety hazard, and is in direct violation of section 7.1.10.1 Maintenance. Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency and 7.1.10.2.1 which states 7.1.10.2.1 No furnishings, decorations, or other objects shall obstruct exits or their access thereto, egress therefrom, or visibility thereof. 30 and 31.3.2.1.1 lists trash collection rooms as a hazardous area and requires protection over and above the occupancy requirements. 30 and 31.7.2.2 prohibits contents and furnishings of a highly flammable character from use outside the dwelling unit.

Conflicting provisions on how long the container can occupy the corridor 18 or 5 hours. It appears the TC is permitting the container to be empty in the corridor for 18 hours, trash can only be in the container for 5 hours. This has been noted by the CC. This is unenforceable and again no technical justification has been provided on these timeframes. The timeframe will extend well into the overnight hours which is when fires in residential properties pose the greatest risk.
No fire testing or fire modeling has been performed to justify or validate the proposed requirements in the residential setting.
Many of the provisions are not easily enforced due to the nature of the service.

X.7.5.1 was added to let the ahj determine if valet trash would be permitted for the specific building taking into account protection, past issues with the building, occupants of valet trash company. As currently proposed, it is a blanket permission to allow.

X.7.5.3 was moved so all the container construction issues are in the same place.

X.7.5.5 adds requirements, similar to health care on items in corridors, to permit containers only on one side, grouping and separation.

X.7.5.6 Limits the time containers and trash can be in the corridor. Also based on fire death and injury data limits the times to when most residents of the building would be awake in the event of a fire. By permitting during hours of sleeping it will take longer for occupants to escape in the event of a fire.

x.7.5.8 requires fire sprinkler to control the fire permitting occupants to exit the building before the environment gets to toxic. Hold the fire for fire fighters to gain entry and extinguish.

Related Item

• FR6666

Submitter Information Verification

Submitter Full Name: Steven Sawyer
Organization:
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 07 08:15:10 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The new language will provide challenges to the enforcement of the requirements. The language does not appear to be finished, it appears to be missing requirements that should be located in the section.

Public Comment No. 77-NFPA 101-2022 [Section No. 30.7.5]

~~**30.7.5** – Valet Trash Collection Services.~~

~~**30.7.5.1** –~~

~~Combustible trash or recycling materials in corridors or on egress balconies awaiting scheduled collection shall be placed completely inside a container that does not exceed a capacity of 15 gal (60 L) in corridors and 22 gal (95 L) on egress balconies.~~

~~**30.7.5.2** –~~

~~Valet trash and recycling containers shall meet all of the following requirements:~~

(1) ~~The containers shall be of liquidtight construction.~~

(2) ~~The containers shall be equipped with lids.~~

(3) ~~The lids shall be in the fully closed position.~~

~~**30.7.5.3** –~~

~~Containers and lids shall be constructed entirely of noncombustible materials or materials that meet a peak rate of heat release not exceeding 300 kW/m ^{2} when tested in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter* , at an incident heat flux of 50 kW/m ^{2} in the horizontal orientation.~~

~~**30.7.5.4** –~~

~~Containers shall not be required to comply with 30.7.5.3 for the following:~~

(1) ~~Containers in sprinklered corridors or egress balconies in buildings provided with a sprinkler system complying with 30.3.5~~

(2) ~~Containers on egress balconies in buildings with noncombustible or limited combustible exteriors.~~

~~**30.7.5.5** –~~

~~Containers shall not obstruct the minimum egress width required by 30.2.3 .~~

~~**30.7.5.6** –~~

~~Containers shall not occupy a corridor for a single period exceeding 18 hours.~~

~~**30.7.5.7** –~~

~~Combustible trash or recycling materials shall not occupy a corridor for a single period exceeding 5 hours.~~

Statement of Problem and Substantiation for Public Comment

The committee has provided no technical substantiation for the proposed change.

The proposed text by the Residential TC has many concerns for AHJ's as well as fire and life safety: The proposed text is in conflict with proven fire safety principles used for many years which prohibit combustible materials in egress corridors. Past fire history has shown how combustibles in the means of egress contributes to fire spread, hampers firefighting efforts, and limits the occupant's ability to egress. Materials, especially combustible materials, are fire fighter safety issues as it creates a new

fire load when stored in the means of egress and may inhibit quick and effective firefighting operations.

For years one of the biggest violations to the code is storage, etc. in the means of egress. This proposal eliminates a basic fire safety of maintaining a clear and unobstructed means of egress for building occupants. The introduction of trash in corridors of any occupancy goes against the basic principles of egress for occupant and creates a fire and life safety, property protection and fire fighter safety hazard, and is in direct violation of section 7.1.10.1 Maintenance. Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency and 7.1.10.2.1 which states 7.1.10.2.1 No furnishings, decorations, or other objects shall obstruct exits or their access thereto, egress therefrom, or visibility thereof. 30 and 31.3.2.1.1 lists trash collection rooms as a hazardous area and requires protection over and above the occupancy requirements. 30 and 31.7.2.2 prohibits contents and furnishings of a highly flammable character from use outside the dwelling unit.

Conflicting provisions on how long the container can occupy the corridor 18 or 5 hours. It appears the TC is permitting the container to be empty in the corridor for 18 hours, trash can only be in the container for 5 hours. This has been noted by the CC. This is unenforceable and again no technical justification has been provided on these timeframes. The timeframe will extend well into the overnight hours which is when fires in residential properties pose the greatest risk.
No fire testing or fire modeling has been performed to justify or validate the proposed requirements in the residential setting.
Many of the provisions are not easily enforced due to the nature of the service.

X.7.5.1 was added to let the ahj determine if valet trash would be permitted for the specific building taking into account protection, past issues with the building, occupants of valet trash company. As currently proposed, it is a blanket permission to allow.

X.7.5.3 was moved so all the container construction issues are in the same place.

X.7.5.5 adds requirements, similar to health care on items in corridors, to permit containers only on one side, grouping and separation.

X.7.5.6 Limits the time containers and trash can be in the corridor. Also based on fire death and injury data limits the times to when most residents of the building would be awake in the event of a fire. By permitting during hours of sleeping it will take longer for occupants to escape in the event of a fire.

x.7.5.8 requires fire sprinkler to control the fire permitting occupants to exit the building before the environment gets to toxic. Hold the fire for fire fighters to gain entry and extinguish.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 113-NFPA 101-2022 [Section No. 31.7.5]	

Related Item

• 7.1.10.2.1 • Table 30.3.2.1.1 • 7.1.10.1

Submitter Information Verification

Submitter Full Name: Kenneth Tyree
Organization: WV State Fire Marshals Office
Affiliation: IFMA
Street Address:
City:
State:
Zip:

Submittal Date: Tue Apr 19 11:28:44 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The substantiations did not provide enough information to remove the Valet Trash section. The language in the requirement was provided by a task group with a wide range of stakeholders. If there is no language in the code, valet trash is still allowed but there will be no requirements on how it is done.

Public Comment No. 37-NFPA 101-2022 [Sections 30.7.5.6, 30.7.5.7]

Sections 30.7.5.6, 30.7.5.7

30.7.5.6

Containers shall not occupy a corridor for a single period exceeding 18 hours.

30.7.5.7

Combustible trash or recycling materials shall not occupy a corridor for a single period exceeding 5 hours.

Additional Proposed Changes

File Name	Description	Approved
101_A2023_SAF_AAC_CCN_37.pdf	101_Correlating Committee Note No. 37	

Statement of Problem and Substantiation for Public Comment

NOTE: The following CC Note No. 37 appeared in the First Draft Report on First Revision No. 6666. Provide technical justification for the time limits specified by 30.7.5.6 and 30.7.5.7. The difference between the two requirements is unclear. The time limits might be unenforceable.

Related Item

• FR-6666

Submitter Information Verification

Submitter Full Name: CC ON SAF_AAC
Organization: NFPA
Street Address:
City:
State:
Zip:
Submittal Date: Tue Mar 22 10:59:18 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of section 30.7.5.6 is that containers can be in the corridor for a total of 18 hours, while the intent of section 30.7.5.7 is that if there is combustible trash or any recycling materials can only occupy the corridor not exceeding 5 hours. The language is clear. HOAs currently regulate the amount of time trash containers can be at the curb, this is a similar scenario. Having timeframes also gives a management company a target for developing a valet trash program, and such targets are important.

Correlating Committee Note No. 37-NFPA 101-2022 [New Section after 30.7.4]

Submitter Information Verification

Committee: SAF-AAC
Submittal Date: Mon Jan 17 16:13:24 EST 2022

Committee Statement and Meeting Notes

Committee Statement: Provide technical justification for the time limits specified by 30.7.5.6 and 30.7.5.7. The difference between the two requirements is unclear. The time limits might be unenforceable.

First Revision No. 6666-NFPA 101-2021 [New Section after 30.7.4]

Ballot Results

✔ **This item has passed ballot**

11 Eligible Voters
1 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Taluba, Jon

Affirmative All

Bush, Kenneth E.
Carson, Wayne G. Chip
Gilyeat, Sharon S.
Harbuck, Stanley C.
Hopper, Howard
Hugo, Jeffrey M.
Lucas, Jeffrey A.
Quiter, James R.
Reiswig, Rodger
Rosenbaum, Eric R.

Public Comment No. 54-NFPA 101-2022 [New Section after 30.7.5.7]

30.7.5.8 Valet trash collection services shall be permitted in building with an approved fire sprinkler systems is installed.

Statement of Problem and Substantiation for Public Comment

The committee has provided no technical substantiation for the proposed change.

The proposed text by the Residential TC has many concerns for AHJ's as well as fire and life safety: The proposed text is in conflict with proven fire safety principles used for many years which prohibit combustible materials in egress corridors. Past fire history has shown how combustibles in the means of egress contributes to fire spread, hampers firefighting efforts, and limits the occupant's ability to egress. Materials, especially combustible materials, are fire fighter safety issues as it creates a new fire load when stored in the means of egress and may inhibit quick and effective firefighting operations. Sprinklers would at least control the fire giving occupants and fire fighter time to leave the building or enter the building for fire fighting purposes.

For years one of the biggest violations to the code is storage, etc. in the means of egress. This proposal eliminates a basic fire safety of maintaining a clear and unobstructed means of egress for building occupants. The introduction of trash in corridors of any occupancy goes against the basic principles of egress for occupant and creates a fire and life safety, property protection and fire fighter safety hazard, and is in direct violation of section 7.1.10.1 Maintenance. Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency and 7.1.10.2.1 which states 7.1.10.2.1 No furnishings, decorations, or other objects shall obstruct exits or their access thereto, egress therefrom, or visibility thereof. 30 and 31.3.2.1.1 lists trash collection rooms as a hazardous area and requires protection over and above the occupancy requirements. 30 and 31.7.2.2 prohibits contents and furnishings of a highly flammable character from use outside the dwelling unit.

Conflicting provisions on how long the container can occupy the corridor 18 or 5 hours. It appears the TC is permitting the container to be empty in the corridor for 18 hours, trash can only be in the container for 5 hours. This has been noted by the CC. This is unenforceable and again no technical justification has been provided on these timeframes. The timeframe will extend well into the overnight hours which is when fires in residential properties pose the greatest risk.
No fire testing or fire modeling has been performed to justify or validate the proposed requirements in the residential setting.
Many of the provisions are not easily enforced due to the nature of the service.

Related Item

• FR6666

Submitter Information Verification

Submitter Full Name: Steven Sawyer
Organization:
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 07 08:06:41 EDT 2022

Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: Chapter 30 already requires automatic sprinklers for new apartment buildings. Valet trash is not allowed in exit corridors, only exit access corridors. The proposed language does not restrict valet trash in non-sprinklered building only permits valet trash in sprinklered buildings.

Public Comment No. 188-NFPA 101-2022 [Section No. 31.3.5.10]

31.3.5.10

Portable fire extinguishers shall be provided in accordance with Section 9.9~~ shall be provided in hazardous areas addressed by 31.3.2.1 , unless the building is protected throughout with an approved, supervised automatic sprinkler system in accordance with 31.3.5.2 . . .~~

Statement of Problem and Substantiation for Public Comment

A 2013 NFPA Report: “U.S. Experience with Sprinklers” reports that there were 48,460 reported structure fires annually in buildings equipped with sprinkler systems between 2007-2011, and 40,440 (83 percent) never grew large enough to activate the system. Based on this report alone, it’s clear that people are reacting to small fires and extinguishing them prior to sprinkler activation. Limiting a fire to the smallest area within a building is a sensible aspiration.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it’s small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public’s priorities and judgment for fight or flight are rational and appropriate.

Under the Scope of the Life Safety Code, Subsection 1.1.2 entitled, “Danger to Life form Fire,” the Code states the following: “The Code addresses those construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire.” Further, it states in Subsection 1.1.4 entitled, “Other Fire-Related Considerations,” the following: “The Code addresses other considerations that are essential to life safety in recognition of the fact that life safety is more than a matter of egress. The Code also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire.”

Studies of building fires indicate that occupants typically exhibit altruistic behavior toward others. Human response to a threatening situation might follow one of a variety of behaviors. Individuals might choose to investigate, sound an alarm, assist with rescue, seek help, or flee. Such actions constitute normal behavior, even when taken collectively. Most people avoid direct contact with a fire while undertaking another action.

There is a fundamental discrepancy between official/policy assumptions and the public in relation to priorities in the event of a fire. Government and professionals focus on avoiding injuries and see that as the sole aspiration, in the pursuit of which everything else is secondary. In contrast, the public have a wide and largely unrecognized range of priorities when encountering a fire, based on their individual circumstances. These include: the avoidance of embarrassment/inconvenience; mitigating the impact of damage to the property, e.g. avoiding the risk of being unable to remain in their place of business;

and their concern for the wellbeing of other people. Each are invested by different aspirations in the fire safety ecosystem.

A desire to achieve their self-appointed tasks is a strong motivation for the public's behavior when encountering a fire. For most, this will involve an active response of on average five actions, although for some it will be as many as 11. This includes investigating the initial cues and tackling the fire, often using improvised means. They are usually successful in doing so, with 70% to 80% of fires dealt with by the public without requiring professional assistance. It is important to note that in doing so, they are willingly acting against official advice and are not being coerced into this. The evidence shows the public to be effective and capable in tackling fires, even in the absence of any professional support, or often without specialized equipment. This is supported by the pioneering studies of the public experience of dwelling fires undertaken by Bryan (1977) and Wood (1972) in the USA and UK, respectively. Their studies supported by their findings that the public did undertake a range of self-appointed tasks including investigating and tackling fires. Recent studies have confirmed similar findings and these behaviors appear consistent over time.

The evidence further identifies that the public is willing and will accept minor consequences in their pursuit of achieving personal humanistic priorities and instinct. Concern for people, pets and possessions are strong and established drivers of behavior in the event of a fire. Therefore, this should be no surprise to see it as an influential feature of most individual's response to a fire.

A 2003 UK survey found that across all categories of location, extinguishers were successful in extinguishing 79.9% of fires. Note: Private houses accounted for only 3.3% of extinguisher use. It reported that 58.6% were operated by trained staff, 36.4% were operated by untrained staff and in 5% of incidents, this was unknown.

Data from the National Association of Fire Equipment Distributors (NAFED) provides even more robust validation of the influence of fire extinguishers as used by 'ordinary civilians. Their research and data indicate, "Of 13,221 fire incidents reported, portable fire extinguishers successfully extinguished 12,505 fires (95%)." (NAFED 2010: 2) The combined results of the 34 years of data are based on the performance of 32,756 fire extinguishers used on 13,453 incidents.

Fortunately, most people encountering a fire will avoid any injury or will be exposed to a low, and often considered risk of a minor injury at worst. This is not a matter of luck but due to a combination of their own abilities and to the low level of risk presented by most fires individuals would choose to fight at the incipient stage. A 2015 study identified that there was a disconnect between the fire service/government and the public in terms of what they referred to as 'risk tolerance'. This was most evident in attitude to injuries. Official policy seems to place avoidance of any injury as its highest priority and assumes this to also be the public's main motivation and enough to dictate any response to the discovery of a fire. However, the same study found that almost all those who incurred a minor injury accepted it as a reasonable cost in relation to pursuing or achieving their personal priorities. Further, they stated, in hindsight, they would do the same again.

It should be noted that numerous every day and discretionary activities carry similar or higher levels of risk to those resulting from using an extinguisher. Do-It-Yourself and sport for example are frequently responsible for injuries or even fatalities. In response, the government and industry seek to help make products safer or provide advice. This is preferred to denying people the option to participate in either activity by withdrawing public access to tools or sports equipment. The benefits achieved by the public using extinguishers are significant, given the potential for a fire to otherwise lead to detrimental and life-changing outcomes. A low and calculated level of personal risk willingly accepted by an individual tackling a fire can avoid, or reduce, a much higher risk to others should they ignore the fire and allow it to develop. Where current guidance discourages the provision of extinguishers in public spaces, this policy is neither supported by the evidence or justifiable through a consensus from the public. Rather it is imposed on them and is inconsistent with other approaches to public health.

The fire service's response time to structure fires has increased significantly over the past 25 years for several reasons like traffic, infrastructures, and lately staffing. Hence, the ability for the early interventions of the public are likely to be the most significant determinant of the outcome of a fire event. Most people do respond appropriately, and the literature confirms that they do not panic. Typically, most people are at risk of a minor injury at worst, due to the low risk from the fire and their own ability to assess and act in accordance with the situation.

A significant amount of data has been collected to support the requirement for portable extinguishers, including: WPI/EKU Study: “Ordinary People and the Effective Operation of Fire Extinguishers”, which clearly showed that the vast majority of people who have never used an extinguisher can operate one safely and effectively. This willingness of the public to accept minor injuries to protect individuals, the facility or their personal property is supported by literature and data and shows these to be well established behaviors which policy makers need to work with, rather than against.
Reflecting official policy, national and local fire safety messaging has, for some time, urged the public, on discovering a fire in the home, to “Get out, stay out”, “Don’t put yourself at risk” and ‘Leave it to the professionals.” This paternalistic messaging confirms the government policy makers and fire services’ belief that a professional response is the only intervention capable of safely tackling fires. Again, this starkly contrasts with the reality that between 70% and 80% of dwelling fires are tackled effectively and at low risk, by the public. The policy also fails to accord with the public who have been shown to be tolerant, or accepting, of the incurrence of minor injuries in pursuit of their personal priorities.

Surveys from the National Association of Fire Equipment Distributors (NAFED) in America reveals the same trend of public firefighting, with even higher percentages not needing the fire service. “In both the 1979 and 1985 surveys, the fire department was only called for 13% of the reported fires. In the 1996 survey, the fire department was called in 24% of the reported fires. However, in the 2010 survey the number dropped to 17% of the time’. And ‘These results are not unique to NAFED surveys. A 1978 publication by the U.S. Department of Commerce stated that about 90% of fires in households are not reported, based on their survey of 33,000 fires.” (NAFED, 2010: 9)

The public are likely to encounter a fire that is relatively small and often contained to the item first ignited. They are often the ones present when fire starts. In summary, there is a significant difference between official assumptions/guidance and actual public behavior. However, the government and FRS seek to deter this behavior, and, in singularly promoting there, “Get out’ message,” and remove the simple yet potential life saving devices in sprinklered buildings.

A recent study also showed that the public do not just get out, with 49% never leaving the property during the fire. While this may surprise or concern many professionals, it is likely to be explained by a difference between the fire as perceived by professionals and the lived experience of the public. There is nothing to suggest that the public routinely take unnecessary risks. A more likely explanation is that the fire was small and not sufficiently well-developed to pose an imminent injury or life threat. As such, they were able to remain in the premises safely and relatively comfortably, which is supported by the evidence in relation to the majority of fires not spreading beyond the item first ignited or the room of origin. Inclement weather or other factors may also make remaining in the premises a safer or more comfortable option. Fires, like other emergencies, must also be understood in human terms.

The concept of trading off portable extinguishers in sprinklered buildings has been largely abandoned by fire protection principles. NFPA 10 states in subsection 5.1.2, “The selection of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.” Other codes, and other occupancy chapters have abandoned this concept in recognition of the fact that portable extinguishers are a valuable, cost-effective layer of fire protection, and are intended for a different purpose than sprinklers. Recognition of the valuable role of extinguishers came from a 2003 report which concluded, ‘Fire extinguishers are designed to prevent relatively minor incidents becoming major conflagrations.’ It is, of course, difficult to prove how many and which fires would have developed to pose a serious risk if not tackled and contained early on. Events such as the Grenfell fire are a reminder of the consequences when this happens.

The National Fire Codes of both NFPA and the ICC require portable fire extinguishers in all occupancy classes including storage which addresses property protection and property loss as well as, the safety of the building occupants. Fire safety is grounded in the engineering discipline which brings many strengths to codes requirements, but it is insufficient, and fire safety effectiveness is limited by ignoring the social sciences of human behavior. It is important to appreciate that while different to official assumptions and desire for evacuation, research shows the public's priorities to be rational and appropriate. The public’s experience of fire is vastly different to that of the professionals involved in the planning for and responding to fire.

Official policy and attitudes of the Technical Committee are most singularly directed at avoiding the risk when the public encounters a fire. This is well meaning but the research has shown that this DOES

NOT I REPEAT DOES NOT align with the publics' attitude or the ability of the general public. The belief that 'undesirable' behavior can be changed by advice, campaigns or other measures has been shown to be inaccurate. The paternalistic approach by which government and the building safety regulatory sector seek to change human behavior by removing proven and effective appliances such as portable fire extinguishers is WRONG. However, the building safety regulatory sector continue this approach despite the evidence that public behaviors are safe, effective, and largely unaltered by current guidance and campaigns rather than providing appropriate safety devices for use by the public. A portable fire extinguisher is an effective item of fire protection which allows for small fires to be tackled by the occupants of a building and saves 100s of thousands of dollars in property loss.

Concerns have been indicted regarding the requirement for training. Training in the use of extinguishers is an important issue and one in which opinion appears more influential than the evidence. Whether purchased for a private dwelling or provided through regulatory processes, there is no mandatory requirement for training to use an extinguisher, and studies do not reveal training to be a requirement for their safe or effective use. In fact, the available data and studies demonstrate the opposite to be the case.

The Technical Committee should also note that portable fire extinguishers are designed for the novice user. Although, training is recommended for proper use and technique and is wide available through a variety of resources including at online training; there are no specified training requirements even under OSHA unless that is an assigned duty employee by the employer. The proposed requirement is intended as a provision for layered fire protection for the general public and employees for general safety.

Although there is limited data available related to extinguisher use since the removal of portable fire extinguishers in the NIFRS data field, there is little to no data supporting the removal of portable fire extinguishers and sole reliance on building fire sprinkler systems. Limiting a fire to the smallest area within a building is a sensible aspiration.

Cost has been another point of contention. A study by Richard Bukowski in 2014, the life cycle cost of portable fire extinguishers was determined to be between one and a half and four cents per foot annually; if coverage could be maximized to that allowable by code, the cost drops to between a half cent and one cent per foot annually. It's unlikely that any other layer of fire protection is so cost-effective.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it's small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public's priorities and judgment for fight or flight are rational and appropriate.

Related Item

• Public Input No. 385-NFPA 101-2021

Submitter Information Verification

Submitter Full Name:	Marvin Garriss
Organization:	Synergy Consortium Group, LLC

Affiliation: The National Association of State Fire Marshals, The International Fire Marshal's Association - Georgia Chapter / The Georgia Fire Prevention Association and Fire Equipment Manufacturers' Association

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 28 17:49:01 EDT 2022

Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of not providing fire extinguishers is to allow people to escape and not try to extinguish the fire, allowing trained personnel to handle the fire. The requirement for extinguishers also adds a requirement for the building owner to provide training as well as maintenance. Providing fire extinguishers is a challenge based on cost of providing and maintaining them. There are also instances of misuse by the occupants. The code does not restrict the use of fire extinguishers, therefore fire extinguishers can be added but are not required to be added. The added substantiation provided by the submitter does not provide a reason for the technical committee to change it's decision from the first draft meeting.

Public Comment No. 189-NFPA 101-2022 [Section No. 31.3.5.10]

31.3.5.10

Portable fire extinguishers in accordance with Section 9.9 shall be provided in hazardous areas addressed by 31.3.2.1~~, unless the building is protected throughout with an approved, supervised automatic sprinkler system in accordance with~~ 31.3.5.2 ~~.~~ .

Statement of Problem and Substantiation for Public Comment

A 2013 NFPA Report: “U.S. Experience with Sprinklers” reports that there were 48,460 reported structure fires annually in buildings equipped with sprinkler systems between 2007-2011, and 40,440 (83 percent) never grew large enough to activate the system. Based on this report alone, it’s clear that people are reacting to small fires and extinguishing them prior to sprinkler activation. Limiting a fire to the smallest area within a building is a sensible aspiration.

To avoid addressing fires in their earliest stages is counter-intuitive, and studies have shown that people will almost always attempt to extinguish a fire if it’s small and they believe they can mitigate the hazard. Thus, it is important to give the public the intelligently designed and placed tools intended for their use and not the necessarily firefighters. If a fire extinguisher is not available, people have (and will continue to) use makeshift means to try to extinguish the fire, which is far less safe than using a portable extinguisher that is designed for safe and effective use by novices. (Ref: An Evaluation of the Role of Fire Extinguishers by David Wales)

The Technical Committee should note that by adding this requirement, the committee is not requiring an individual to stay in a building and fight a fire but, is providing an everyday tool for an individual to utilize in the event that a fire is discovered in its incipient stages and allows for the protection of not only life but also the preservation of property. A portable fire extinguisher is an item which allows for small fires to be tackled by members of the public and it is important to appreciate that while different to official assumptions, research shows the public’s priorities and judgment for fight or flight are rational and appropriate.

Under the Scope of the Life Safety Code, Subsection 1.1.2 entitled, “Danger to Life form Fire,” the Code states the following: “The Code addresses those construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire.” Further, it states in Subsection 1.1.4 entitled, “Other Fire-Related Considerations,” the following: “The Code addresses other considerations that are essential to life safety in recognition of the fact that life safety is more than a matter of egress. The Code also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire.”

Studies of building fires indicate that occupants typically exhibit altruistic behavior toward others. Human response to a threatening situation might follow one of a variety of behaviors. Individuals might choose to investigate, sound an alarm, assist with rescue, seek help, or flee. Such actions constitute normal behavior, even when taken collectively. Most people avoid direct contact with a fire while undertaking another action.

There is a fundamental discrepancy between official/policy assumptions and the public in relation to priorities in the event of a fire. Government and professionals focus on avoiding injuries and see that as the sole aspiration, in the pursuit of which everything else is secondary. In contrast, the public have a wide and largely unrecognized range of priorities when encountering a fire, based on their individual circumstances. These include: the avoidance of embarrassment/inconvenience; mitigating the impact of damage to the property, e.g. avoiding the risk of being unable to remain in their place of business;

and their concern for the wellbeing of other people. Each are invested by different aspirations in the fire safety ecosystem.

A desire to achieve their self-appointed tasks is a strong motivation for the public's behavior when encountering a fire. For most, this will involve an active response of on average five actions, although for some it will be as many as 11. This includes investigating the initial cues and tackling the fire, often using improvised means. They are usually successful in doing so, with 70% to 80% of fires dealt with by the public without requiring professional assistance. It is important to note that in doing so, they are willingly acting against official advice and are not being coerced into this. The evidence shows the public to be effective and capable in tackling fires, even in the absence of any professional support, or often without specialized equipment. This is supported by the pioneering studies of the public experience of dwelling fires undertaken by Bryan (1977) and Wood (1972) in the USA and UK, respectively. Their studies supported by their findings that the public did undertake a range of self-appointed tasks including investigating and tackling fires. Recent studies have confirmed similar findings and these behaviors appear consistent over time.

The evidence further identifies that the public is willing and will accept minor consequences in their pursuit of achieving personal humanistic priorities and instinct. Concern for people, pets and possessions are strong and established drivers of behavior in the event of a fire. Therefore, this should be no surprise to see it as an influential feature of most individual's response to a fire.

A 2003 UK survey found that across all categories of location, extinguishers were successful in extinguishing 79.9% of fires. Note: Private houses accounted for only 3.3% of extinguisher use. It reported that 58.6% were operated by trained staff, 36.4% were operated by untrained staff and in 5% of incidents, this was unknown.

Data from the National Association of Fire Equipment Distributors (NAFED) provides even more robust validation of the influence of fire extinguishers as used by 'ordinary civilians. Their research and data indicate, "Of 13,221 fire incidents reported, portable fire extinguishers successfully extinguished 12,505 fires (95%)." (NAFED 2010: 2) The combined results of the 34 years of data are based on the performance of 32,756 fire extinguishers used on 13,453 incidents.

Fortunately, most people encountering a fire will avoid any injury or will be exposed to a low, and often considered risk of a minor injury at worst. This is not a matter of luck but due to a combination of their own abilities and to the low level of risk presented by most fires individuals would choose to fight at the incipient stage. A 2015 study identified that there was a disconnect between the fire service/government and the public in terms of what they referred to as 'risk tolerance'. This was most evident in attitude to injuries. Official policy seems to place avoidance of any injury as its highest priority and assumes this to also be the public's main motivation and enough to dictate any response to the discovery of a fire. However, the same study found that almost all those who incurred a minor injury accepted it as a reasonable cost in relation to pursuing or achieving their personal priorities. Further, they stated, in hindsight, they would do the same again.

It should be noted that numerous every day and discretionary activities carry similar or higher levels of risk to those resulting from using an extinguisher. Do-It-Yourself and sport for example are frequently responsible for injuries or even fatalities. In response, the government and industry seek to help make products safer or provide advice. This is preferred to denying people the option to participate in either activity by withdrawing public access to tools or sports equipment. The benefits achieved by the public using extinguishers are significant, given the potential for a fire to otherwise lead to detrimental and life-changing outcomes. A low and calculated level of personal risk willingly accepted by an individual tackling a fire can avoid, or reduce, a much higher risk to others should they ignore the fire and allow it to develop. Where current guidance discourages the provision of extinguishers in public spaces, this policy is neither supported by the evidence or justifiable through a consensus from the public. Rather it is imposed on them and is inconsistent with other approaches to public health.

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A significant amount of data has been collected to support the requirement for portable extinguishers, including: WPI/EKU Study: “Ordinary People and the Effective Operation of Fire Extinguishers”, which clearly showed that the vast majority of people who have never used an extinguisher can operate one safely and effectively. This willingness of the public to accept minor injuries to protect individuals, the facility or their personal property is supported by literature and data and shows these to be well established behaviors which policy makers need to work with, rather than against.
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The concept of trading off portable extinguishers in sprinklered buildings has been largely abandoned by fire protection principles. NFPA 10 states in subsection 5.1.2, “The selection of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.” Other codes, and other occupancy chapters have abandoned this concept in recognition of the fact that portable extinguishers are a valuable, cost-effective layer of fire protection, and are intended for a different purpose than sprinklers. Recognition of the valuable role of extinguishers came from a 2003 report which concluded, ‘Fire extinguishers are designed to prevent relatively minor incidents becoming major conflagrations.’ It is, of course, difficult to prove how many and which fires would have developed to pose a serious risk if not tackled and contained early on. Events such as the Grenfell fire are a reminder of the consequences when this happens.

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Although there is limited data available related to extinguisher use since the removal of portable fire extinguishers in the NIFRS data field, there is little to no data supporting the removal of portable fire extinguishers and sole reliance on building fire sprinkler systems. Limiting a fire to the smallest area within a building is a sensible aspiration.

Cost has been another point of contention. A study by Richard Bukowski in 2014, the life cycle cost of portable fire extinguishers was determined to be between one and a half and four cents per foot annually; if coverage could be maximized to that allowable by code, the cost drops to between a half cent and one cent per foot annually. It's unlikely that any other layer of fire protection is so cost-effective.

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This proposal is to provide for the Technical Committee the ability to at a minimum place the requirement for portable fire extinguishers into hazardous areas only.

Related Item

• Public Input No. 385-NFPA 101-2021

Submitter Information Verification

Submitter Full Name: Marvin Garriss

Organization: Synergy Consortium Group, LLC

Affiliation: The National Association of State Fire Marshals, The International Fire Marshal's Association - Georgia Chapter / The Georgia Fire Prevention Association and Fire Equipment Manufacturers' Association

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 28 17:51:40 EDT 2022

Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of not providing fire extinguishers is to allow people to escape and not try to extinguish the fire, allowing trained personnel to handle the fire. The requirement for extinguishers also adds a requirement for the building owner to provide training as well as maintenance. Providing fire extinguishers is a challenge based on cost of providing and maintaining them. There are also instances of misuse by the occupants. The code does not restrict the use of fire extinguishers, therefore fire extinguishers can be added but are not required to be added. The added substantiation provided by the submitter does not provide a reason for the technical committee to change it's decision from the first draft meeting.

Public Comment No. 113-NFPA 101-2022 [Section No. 31.7.5]

~~**31.7.5** – Valet Trash Collection Services.~~

~~**31.7.5.1** –~~

~~Combustible trash or recycling materials in corridors or on egress balconies awaiting scheduled collection shall be placed completely inside a container that does not exceed a capacity of 15 gal (60 L) in corridors and 22 gal (95 L) on egress balconies.~~

~~**31.7.5.2** –~~

~~Valet trash and recycling containers shall meet all of the following requirements:~~

(1) ~~The containers shall be of liquidtight construction.~~

(2) ~~The containers shall be equipped with lids.~~

(3) ~~The lids shall be in the fully closed position.~~

~~**31.7.5.3** –~~

~~Containers and lids shall be constructed entirely of noncombustible materials or materials that meet a peak rate of heat release not exceeding 300 kW/m ^{2} when tested in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter* , at an incident heat flux of 50 kW/m ^{2} in the horizontal orientation.~~

~~**31.7.5.4** –~~

~~Containers shall not be required to comply with 31.7.5.3 for the following:~~

(1) ~~Containers in sprinklered corridors or egress balconies in buildings provided with a sprinkler system complying with 31.3.5~~

(2) ~~Containers on egress balconies in buildings with noncombustible or limited combustible exteriors.~~

~~**31.7.5.5** –~~

~~Containers shall not obstruct the minimum egress width required by 31.2.3 .~~

~~**31.7.5.6** –~~

~~Containers shall not occupy a corridor for a single period exceeding 18 hours.~~

~~**31.7.5.7** –~~

~~Combustible trash or recycling materials shall not occupy a corridor for a single period exceeding 5 hours.~~

Statement of Problem and Substantiation for Public Comment

The committee has provided no technical substantiation for the proposed change.

The proposed text by the Residential TC has many concerns for AHJ's as well as fire and life safety: The proposed text is in conflict with proven fire safety principles used for many years which prohibit combustible materials in egress corridors. Past fire history has shown how combustibles in the means of egress contributes to fire spread, hampers firefighting efforts, and limits the occupant's ability to egress. Materials, especially combustible materials, are fire fighter safety issues as it creates a new

fire load when stored in the means of egress and may inhibit quick and effective firefighting operations.

For years one of the biggest violations to the code is storage, etc. in the means of egress. This proposal eliminates a basic fire safety of maintaining a clear and unobstructed means of egress for building occupants. The introduction of trash in corridors of any occupancy goes against the basic principles of egress for occupant and creates a fire and life safety, property protection and fire fighter safety hazard, and is in direct violation of section 7.1.10.1 Maintenance. Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency and 7.1.10.2.1 which states 7.1.10.2.1 No furnishings, decorations, or other objects shall obstruct exits or their access thereto, egress therefrom, or visibility thereof. 30 and 31.3.2.1.1 lists trash collection rooms as a hazardous area and requires protection over and above the occupancy requirements. 30 and 31.7.2.2 prohibits contents and furnishings of a highly flammable character from use outside the dwelling unit.

Conflicting provisions on how long the container can occupy the corridor 18 or 5 hours. It appears the TC is permitting the container to be empty in the corridor for 18 hours, trash can only be in the container for 5 hours. This has been noted by the CC. This is unenforceable and again no technical justification has been provided on these timeframes. The timeframe will extend well into the overnight hours which is when fires in residential properties pose the greatest risk.
No fire testing or fire modeling has been performed to justify or validate the proposed requirements in the residential setting.
Many of the provisions are not easily enforced due to the nature of the service.

X.7.5.1 was added to let the ahj determine if valet trash would be permitted for the specific building taking into account protection, past issues with the building, occupants of valet trash company. As currently proposed, it is a blanket permission to allow.

X.7.5.3 was moved so all the container construction issues are in the same place.

X.7.5.5 adds requirements, similar to health care on items in corridors, to permit containers only on one side, grouping and separation.

X.7.5.6 Limits the time containers and trash can be in the corridor. Also based on fire death and injury data limits the times to when most residents of the building would be awake in the event of a fire. By permitting during hours of sleeping it will take longer for occupants to escape in the event of a fire.

x.7.5.8 requires fire sprinkler to control the fire permitting occupants to exit the building before the environment gets to toxic. Hold the fire for fire fighters to gain entry and extinguish.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 77-NFPA 101-2022 [Section No. 30.7.5]	

Related Item

• 7.1.10.1 • 7.1.10.2.1 • 31.3.2.1.1

Submitter Information Verification

Submitter Full Name: Kenneth Tyree
Organization: West Virginia State Fire Marshals Office
Affiliation: IFMA
Street Address:
City:
State:
Zip:

Submittal Date: Fri May 20 16:00:52 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The substantiations did not provide enough information to remove the Valet Trash section. The language in the requirement was provided by a task group with a wide range of stakeholders. If there is no language in the code, valet trash is still allowed but there will be no requirements on how it is done.

Public Comment No. 52-NFPA 101-2022 [Section No. 31.7.5]

~~**31.7.5** – Valet Trash Collection Services.~~

~~**31.7.5.1** –~~

~~Combustible trash or recycling materials in corridors or on egress balconies awaiting scheduled collection shall be placed completely inside a container that does not exceed a capacity of 15 gal (60 L) in corridors and 22 gal (95 L) on egress balconies.~~

~~**31.7.5.2** –~~

~~Valet trash and recycling containers shall meet all of the following requirements:~~

(1) ~~The containers shall be of liquidtight construction.~~

(2) ~~The containers shall be equipped with lids.~~

(3) ~~The lids shall be in the fully closed position.~~

~~**31.7.5.3** –~~

~~Containers and lids shall be constructed entirely of noncombustible materials or materials that meet a peak rate of heat release not exceeding 300 kW/m ^{2} when tested in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter* , at an incident heat flux of 50 kW/m ^{2} in the horizontal orientation.~~

~~**31.7.5.4** –~~

~~Containers shall not be required to comply with 31.7.5.3 for the following:~~

(1) ~~Containers in sprinklered corridors or egress balconies in buildings provided with a sprinkler system complying with 31.3.5~~

(2) ~~Containers on egress balconies in buildings with noncombustible or limited combustible exteriors.~~

~~**31.7.5.5** –~~

~~Containers shall not obstruct the minimum egress width required by 31.2.3 .~~

~~**31.7.5.6** –~~

~~Containers shall not occupy a corridor for a single period exceeding 18 hours.~~

~~**31.7.5.7** –~~

~~Combustible trash or recycling materials shall not occupy a corridor for a single period exceeding 5 hours.~~

Statement of Problem and Substantiation for Public Comment

The committee has provided no technical substantiation for the proposed change.

The proposed text by the Residential TC has many concerns for AHJ's as well as fire and life safety: The proposed text is in conflict with proven fire safety principles used for many years which prohibit combustible materials in egress corridors. Past fire history has shown how combustibles in the means of egress contributes to fire spread, hampers firefighting efforts, and limits the occupant's ability to egress. Materials, especially combustible materials, are fire fighter safety issues as it creates a new

fire load when stored in the means of egress and may inhibit quick and effective firefighting operations.

For years one of the biggest violations to the code is storage, etc. in the means of egress. This proposal eliminates a basic fire safety of maintaining a clear and unobstructed means of egress for building occupants. The introduction of trash in corridors of any occupancy goes against the basic principles of egress for occupant and creates a fire and life safety, property protection and fire fighter safety hazard, and is in direct violation of section 7.1.10.1 Maintenance. Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency and 7.1.10.2.1 which states 7.1.10.2.1 No furnishings, decorations, or other objects shall obstruct exits or their access thereto, egress therefrom, or visibility thereof. 30 and 31.3.2.1.1 lists trash collection rooms as a hazardous area and requires protection over and above the occupancy requirements. 30 and 31.7.2.2 prohibits contents and furnishings of a highly flammable character from use outside the dwelling unit.

Conflicting provisions on how long the container can occupy the corridor 18 or 5 hours. It appears the TC is permitting the container to be empty in the corridor for 18 hours, trash can only be in the container for 5 hours. This has been noted by the CC. This is unenforceable and again no technical justification has been provided on these timeframes. The timeframe will extend well into the overnight hours which is when fires in residential properties pose the greatest risk.
No fire testing or fire modeling has been performed to justify or validate the proposed requirements in the residential setting.
Many of the provisions are not easily enforced due to the nature of the service.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 51-NFPA 101-2022 [Section No. 30.7.5]	

Related Item

- FR6738

Submitter Information Verification

Submitter Full Name: Steven Sawyer
Organization:
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 07 08:00:55 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The substantiations did not provide enough information to remove the Valet Trash section. The language in the requirement was provided by a task group with a wide range of stakeholders. If there is no language in the code, valet trash is still allowed but there will be no requirements on how it is done.

Public Comment No. 56-NFPA 101-2022 [Section No. 31.7.5]

31.7.5

–

Valet Trash Collection Services.

31.7.5.1 Where permitted by the AHJ, combustible trash or recycling materials shall comply with 30.7.5.

31.7.5.1 –

Combustible trash or recycling materials in corridors or on egress balconies awaiting scheduled collection shall be placed completely inside a container that does not exceed a capacity of 15 gal (60 L) in corridors and 22 gal (95 L) on egress balconies.

31.7.5.2

–

~~Valet~~

Valet trash and recycling containers shall meet all of the following requirements:

- ~~The containers shall be of liquidtight construction.~~
- ~~The containers shall be equipped with lids.~~
- ~~The lids shall be in the fully closed position.~~

~~31.7.5.3~~ –

- ~~Containers in sprinklered corridors or egress balconies in buildings provided with a sprinkler system complying with 31.3.5~~

~~Containers~~

~~(1) Containers and lids shall be constructed entirely of noncombustible materials or materials that meet a peak rate of heat release not exceeding 300 kW/m^2 when tested in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*, at an incident heat flux of 50 kW/m^2 in the horizontal orientation.~~

~~31.7.5.4~~ –

~~Containers shall not be required to comply with 31.7.5.3 for the following:~~

~~(2) The containers shall be of liquidtight construction.~~

~~(3) The containers shall be equipped with lids.~~

~~(4) The lids shall be in the fully closed position.~~

~~(5) Containers shall be placed on the same side of the corridor.~~

~~(6) Containers shall be located so as to not obstruct access to building service and fire protection equipment.~~

~~(7) Containers shall be grouped such that each grouping does not exceed a projected floor area of 400sqin (3.7 m2).~~

~~(8) More than two containers shall be in each grouping.~~

~~(9) The groupings addressed in (7) are separated from each other by a distance of at least 10 ft (3050 mm).~~

~~31.7.5.3 –~~

~~Containers shall not be required to comply with 30.7.5.2 (1) on egress balconies in buildings with noncombustible or limited combustible exteriors.~~

~~31.7.5.~~

~~5~~
~~4~~ –

~~Containers shall not obstruct the minimum egress width required by~~

~~31~~

~~30 .2.3 .~~

~~31.7.5.~~

~~6~~
~~5~~ –

~~Containers shall not occupy a corridor for a single period exceeding~~

~~18 hours~~

~~12 hours between the hours of 7am to 7pm .~~

~~31.7.5.~~

~~7~~
~~6~~ –

~~Combustible trash or recycling materials shall not occupy a corridor for a single period exceeding 5 hours between the hours of 7am to 7pm .~~

~~31.7.5.7 Building where valet trash collection services are permitted shall have an approved fire sprinkler system installed.~~

Statement of Problem and Substantiation for Public Comment

The committee has provided no technical substantiation for the proposed change.

The proposed text by the Residential TC has many concerns for AHJ's as well as fire and life safety: The proposed text is in conflict with proven fire safety principles used for many years which prohibit combustible materials in egress corridors. Past fire history has shown how combustibles in the means of egress contributes to fire spread, hampers firefighting efforts, and limits the occupant's ability to egress. Materials, especially combustible materials, are fire fighter safety issues as it creates a new

fire load when stored in the means of egress and may inhibit quick and effective firefighting operations.

For years one of the biggest violations to the code is storage, etc. in the means of egress. This proposal eliminates a basic fire safety of maintaining a clear and unobstructed means of egress for building occupants. The introduction of trash in corridors of any occupancy goes against the basic principles of egress for occupant and creates a fire and life safety, property protection and fire fighter safety hazard, and is in direct violation of section 7.1.10.1 Maintenance. Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency and 7.1.10.2.1 which states 7.1.10.2.1 No furnishings, decorations, or other objects shall obstruct exits or their access thereto, egress therefrom, or visibility thereof. 30 and 31.3.2.1.1 lists trash collection rooms as a hazardous area and requires protection over and above the occupancy requirements. 30 and 31.7.2.2 prohibits contents and furnishings of a highly flammable character from use outside the dwelling unit.

Conflicting provisions on how long the container can occupy the corridor 18 or 5 hours. It appears the TC is permitting the container to be empty in the corridor for 18 hours, trash can only be in the container for 5 hours. This has been noted by the CC. This is unenforceable and again no technical justification has been provided on these timeframes. The timeframe will extend well into the overnight hours which is when fires in residential properties pose the greatest risk.
No fire testing or fire modeling has been performed to justify or validate the proposed requirements in the residential setting.
Many of the provisions are not easily enforced due to the nature of the service.

X.7.5.1 was added to let the ahj determine if valet trash would be permitted for the specific building taking into account protection, past issues with the building, occupants of valet trash company. As currently proposed, it is a blanket permission to allow.

X.7.5.3 was moved so all the container construction issues are in the same place.

X.7.5.5 adds requirements, similar to health care on items in corridors, to permit containers only on one side, grouping and separation.

X.7.5.5 Limits the time containers and trash can be in the corridor. Also based on fire death and injury data limits the times to when most residents of the building would be awake in the event of a fire. By permitting during hours of sleeping it will take longer for occupants to escape in the event of a fire.

x.7.5.7 requires fire sprinkler to control the fire permitting occupants to exit the building before the environment gets to toxic. Hold the fire for fire fighters to gain entry and extinguish.

Related Item

• FR6738

Submitter Information Verification

Submitter Full Name: Steven Sawyer
Organization:
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 07 08:21:21 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action:	Rejected
Resolution:	The new language will provide challenges to the enforcement of the requirements. The language does not appear to be finished, it appears to be missing requirements that should be located in the section.

Public Comment No. 38-NFPA 101-2022 [Sections 31.7.5.6, 31.7.5.7]

Sections 31.7.5.6, 31.7.5.7

31.7.5.6

Containers shall not occupy a corridor for a single period exceeding 18 hours.

31.7.5.7

Combustible trash or recycling materials shall not occupy a corridor for a single period exceeding 5 hours.

Additional Proposed Changes

File Name	Description	Approved
101_A2023_SAF_AAC_CCN_38.pdf	101_Correlating Committee Note No. 38	

Statement of Problem and Substantiation for Public Comment

NOTE: The following CC Note No. 38 appeared in the First Draft Report on First Revision No. 6738. Provide technical justification for the time limits specified by 31.7.5.6 and 31.7.5.7. The difference between the two requirements is unclear. The time limits might be unenforceable.

Related Item

• FR-6738

Submitter Information Verification

Submitter Full Name: CC ON SAF_AAC
Organization: NFPA
Street Address:
City:
State:
Zip:
Submittal Date: Tue Mar 22 11:03:44 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: The intent of section 31.7.5.6 is that containers can be in the corridor for a total of 18 hours, while the intent of section 31.7.5.7 is that if there is combustible trash or any recycling materials can only occupy the corridor not exceeding 5 hours. The language is clear. HOAs currently regulate the amount of time trash containers can be at the curb, this is a similar scenario. Having timeframes also gives a management company a target for developing a valet trash program, and such targets are important.

Correlating Committee Note No. 38-NFPA 101-2022 [New Section after 31.7.4.2]

Submitter Information Verification

Committee: SAF-AAC
Submittal Date: Mon Jan 17 16:14:42 EST 2022

Committee Statement and Meeting Notes

Committee Statement: Provide technical justification for the time limits specified by 31.7.5.6 and 31.7.5.7. The difference between the two requirements is unclear. The time limits might be unenforceable.

First Revision No. 6738-NFPA 101-2021 [New Section after 31.7.4.2]

Ballot Results

This item has passed ballot

11 Eligible Voters
1 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Taluba, Jon

Affirmative All

Bush, Kenneth E.
Carson, Wayne G. Chip
Gilyeat, Sharon S.
Harbuck, Stanley C.
Hopper, Howard
Hugo, Jeffrey M.
Lucas, Jeffrey A.
Quiter, James R.
Reiswig, Rodger
Rosenbaum, Eric R.

Public Comment No. 53-NFPA 101-2022 [New Section after 31.7.5.7]

31.7.5.7 Valet trash collection services shall be permitted in buildings with an approved automatic fire sprinkler system installed.

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Statement of Problem and Substantiation for Public Comment

The committee has provided no technical substantiation for the proposed change.

The proposed text by the Residential TC has many concerns for AHJ's as well as fire and life safety: The proposed text is in conflict with proven fire safety principles used for many years which prohibit combustible materials in egress corridors. Past fire history has shown how combustibles in the means of egress contributes to fire spread, hampers firefighting efforts, and limits the occupant's ability to egress. Materials, especially combustible materials, are fire fighter safety issues as it creates a new fire load when stored in the means of egress and may inhibit quick and effective firefighting operations. Sprinklers would at least control the fire giving occupants and fire fighter time to leave the building or enter the building for fire fighting purposes.

For years one of the biggest violations to the code is storage, etc. in the means of egress. This proposal eliminates a basic fire safety of maintaining a clear and unobstructed means of egress for building occupants. The introduction of trash in corridors of any occupancy goes against the basic principles of egress for occupant and creates a fire and life safety, property protection and fire fighter safety hazard, and is in direct violation of section 7.1.10.1 Maintenance. Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency and 7.1.10.2.1 which states 7.1.10.2.1 No furnishings, decorations, or other objects shall obstruct exits or their access thereto, egress therefrom, or visibility thereof. 30 and 31.3.2.1.1 lists trash collection rooms as a hazardous area and requires protection over and above the occupancy requirements. 30 and 31.7.2.2 prohibits contents and furnishings of a highly flammable character from use outside the dwelling unit.

Conflicting provisions on how long the container can occupy the corridor 18 or 5 hours. It appears the TC is permitting the container to be empty in the corridor for 18 hours, trash can only be in the container for 5 hours. This has been noted by the CC. This is unenforceable and again no technical justification has been provided on these timeframes. The timeframe will extend well into the overnight hours which is when fires in residential properties pose the greatest risk.
No fire testing or fire modeling has been performed to justify or validate the proposed requirements in the residential setting.
Many of the provisions are not easily enforced due to the nature of the service.

Related Item

• FR 6738

Submitter Information Verification

Submitter Full Name: Steven Sawyer
Organization:
Street Address:
City:
State:
Zip:

Submittal Date: Thu Apr 07 08:03:05 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected

Resolution: Valet trash is not allowed in exit corridors, only exit access corridors. The proposed language does not restrict valet trash in non-sprinklered building only permits valet trash in sprinklered buildings.

Public Comment No. 43-NFPA 101-2022 [Section No. A.24.2.8.1.3]

A.24.2.8.1.3

The *Code* does not require water closet grab bars and stanchions to be installed to improve the usability and safety of water closets. “Where provided,” water closet grab bars and stanchions might be in close proximity to bathtubs or showers and could be used to comply with the bathtub or shower grab bar requirements. Preferences for two vertical points of control for water closets include one installed on each side and one in front of the water closet. One of these could be installed in accordance with the requirements for a bathtub or shower. The requirements for grab bars in showers and bathtubs was added to the scope of the *Code* in 2018. Insights on best practices can be found in the study by Kenny et al. “Toilet Grab-Bar Preference and Center of Pressure Deviation During Toilet Transfers in Healthy Seniors, Seniors With Hip Replacements, and Seniors Having Suffered a Stroke.” ICC-A117.1, *Accessible and Usable Buildings and Facilities*, is an additional reference for ambulatory accessible water closets.

Additional Proposed Changes

File Name	Description	Approved
101_A2023_SAF_AAC_CCN_43.pdf	101_Correlating Committee Note No. 43	

Statement of Problem and Substantiation for Public Comment

NOTE: The following CC Note No. 43 appeared in the First Draft Report on First Revision No. 6770. Consider deleting quotes from phrase, "Where provided," in second sentence; and changing "was added to the scope of the Code" to "were added to the scope of the Code" in the fifth sentence.

Related Item

• FR-6770

Submitter Information Verification

Submitter Full Name: CC ON SAF_AAC
Organization: NFPA
Street Address:
City:
State:
Zip:
Submittal Date: Tue Mar 22 11:37:46 EDT 2022
Committee: SAF-RES

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-6644-NFPA 101-2022
Statement: Editorial corrections and deletion of the last sentence based on ICC changes.

Correlating Committee Note No. 43-NFPA 101-2022 [Detail]

Submitter Information Verification

Committee: SAF-AAC
Submittal Date: Mon Jan 17 16:33:19 EST 2022

Committee Statement and Meeting Notes

Committee Statement: Consider deleting quotes from phrase, "Where provided," in second sentence; and changing "was added to the scope of the Code" to "were added to the scope of the Code" in the fifth sentence.

First Revision No. 6770-NFPA 101-2021 [Detail]

Ballot Results

This item has passed ballot

11 Eligible Voters
1 Not Returned
10 Affirmative All
0 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Taluba, Jon

Affirmative All

Bush, Kenneth E.
Carson, Wayne G. Chip
Gilyeat, Sharon S.
Harbuck, Stanley C.
Hopper, Howard
Hugo, Jeffrey M.
Lucas, Jeffrey A.
Quiter, James R.
Reiswig, Rodger
Rosenbaum, Eric R.