Report of the *Technical Committee on Standpipes*

Certified Amending Motion 14-17
June 2023

The ***Report of the Technical Committee on Standpipes*** is presented as found in the First Draft Report and Second Draft Report for the ***Fall 2022*** cycle of ***NFPA 14, Standard for the Installation of Standpipe and Hose Systems.*** The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards*. The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 14*** at www.nfpa.org/14next.

It was brought to the attention of the technical committee on standpipes that automatic breach valves are being installed in standpipe systems, but the standard contained no prescriptive standard of care for the arrangement, installation, and testing of these valves. A task group was assigned to research and recommend committee action regarding breach valves, which ultimately led to discussion by the technical committee.

The consensus concern is that breach valves could have detrimental effects on firefighting operations and are subject to a wide range of variables that could impair the firefighting water supply. Since it may not be possible during a firefighting operation to determine the set maximum flow for the valve, there is a potential that the valve may close and shut off water to firefighters that are attacking a fire. Modern high-rise firefighting tactics may utilize a combination of handlines and interior monitors that could require flows in excess of 1,000 GPM from mains equipped with breach valves. How the valve is set and commissioned into service limits the potential downstream flow and may not be undertaken without fire department collaboration or approval. In such circumstances, no consideration is given to tactics and equipment that may be deployed by the fire department.

ABC valves are available with a wide range of flows and can be variably set anywhere along the performance curve for that valve, which may or may not be adequate for some scenarios. They are available with pressure ratings from 250-400 psi, but NFPA 14 has evolved over the past 4 cycles to enable water supply designs with no working pressure limit, to enable efficient and reliable zoning of standpipe systems in very tall buildings. This creates inherent limitations and potential conflicts where ABC valves might be considered for installation where such buildings are furnished with high-pressure water supplies.

The technical committee was not provided with, nor were any members aware of technical data or testing supporting their safe use in standpipe systems specifically. In fact, there are no set or published guidelines or generally accepted best practices that the committee is aware of that establish standards of care for sizing, location, arrangement, or number of valves that would be required or how they should be configured for a single vs. multiple-zone system.

The question that we must ask is, "Why should these valves be installed on a system and what are we resolving by their use?" Section 9.6.2 of this edition of the standard (6.3.2 in preceding editions) already require that systems be furnished with sectional control valves that isolate individual standpipes and are arranged so that shutting down any standpipe does not interrupt the water supply to any other standpipes. In that regard, standpipe systems are already required to be equipped with a form of manual breach control and Section 7.5.3 permits the use of listed automatic valves as well. So, what would we be fixing in the standard by allowing the use of non-listed automatic valves?

Flow and pressure capabilities of components that affect water supply are critical aspects of performance, and the NFPA standards have historically placed great value on specific parameters and listing of components that could encumber or impair the functionality of a fire

protection system. With an infinite number of potential flow and pressure variations, the use of these valves without an exacting standard of care for installation, testing and maintenance was seen by the committee as a potentially catastrophic "weak link" in standpipe water supplies. In fact, some risk management and insurance stakeholders agree, and have recommended against, or prohibited the use of breach valves.

Pursuant to the task group work and committee discussion, action was taken to prohibit the use of breach valves on standpipe systems.

Respectfully submitted,

Steve Leyton
on behalf of the Technical Committee on Standpipes

Motion Substantiation

Certified Amending Motion 14-17
June 2023

CAM 14-17 opposes the position of the Technical Committee that was established as a result of second revision No. 28.

Automatic Breach Control Valves (ABCV) have become a standard addition within the design of high-profile buildings over the last 20 years. The ABCV was developed out of a need to protect high profile buildings from catastrophic events. The main objective of an Automatic Breach Control Valve (ABCV) is to protect the upstream floors from losing water supply should there be a downstream breach of the system. If there isn't an ABCV installed, the entire pipe is at risk of losing pressure and supply.

7.6.3* Verbiage:

"Automatic Breach control valves shall not be installed on sprinkler systems."

It should be up to the authority having jurisdiction to decide if the valve is appropriate to use based on the risk profile of the building, with set points coordinated with and subject to their final approval. Certain buildings in the country and around the world are high priority targets for terrorism and other events that are not covered under the scope of NFPA 13 or 14. To generally prohibit the use of the valve is a dis-service to these buildings that depend on the integrity of the standpipe system to help prevent loss of fire reserve water and ability to pressurize standpipes for use In other parts of the building which without, could result in loss of life. At a minimum, there needs to be established criteria that can be used for UL and FM testing should an ABC valve be necessary for a given installation.

A.7.6.3 Verbiage:

"In a sprinkler system, flow rates can exceed those included in the hydraulic calculations." It is important to note ABC Valves are automatic, meaning they will close during excessive differential but will reopen as pressure differentials are restored to normal/design specifications. In addition, if an ABCV were to fail, it would simply not operate, and act as a fixed loss device, further reducing the concern of losing water pressure based on malfunctions.

Public Input No. 546 Calculation Comments:

Example: "There is no reasonable way to calculate the flow that would be considered a catastrophic failure."

The common misconception is that the ABCV measures the flow of the system and will close as multiple components open downstream. The ABCV is a normally open valve that will only show high pressure differential as the ABCV reaches pipe velocities in excess of system design. The ABCV is set to a predetermined pressure differential that is easy to calculate based on each manufacturer having a known pressure loss through their valve at different flow rates. The set point of the ABCV valve can be field adjusted to account for changes in system flow/usage. The set points are typically coordinated with the local authority having jurisdiction to ensure they do not impair firefighting operations. As components (hose valves, sprinkler, etc.) are opened downstream of the ABCV, regardless of the quantity, the residual inlet pressure of the ABCV will adjust in conjunction with the use of downstream components resulting in a low pressure differential. Fire components are designed to keep a back pressure on the system especially if a fire hose is being used, resulting in an even lower pressure differential at the ABCV. During normal operation the ABCV will remain in the full open position and will experience normal pressure differential based on the designed flow rates of the system (15-20 ft/s).

UL/FM:

UL and FM will not make a listing category until NFPA outlines the criteria of acceptable functionality for the ABCV. We would like to propose a series of tests that will outline any situation that could happen during the event of an emergency. Multiple buildings currently use ABC Valves, so to recommend automatic valves be listed when there isn't an available UL or FM category restricts the use of a valve that improves the safety and reliability of the fire system should an unforeseen event take place.

Performance Test:

Local AHJ's have developed and conducted monthly tests to ensure ABCV's are functioning properly. These tests include exercising the pilot system to ensure all components are calibrated properly. There are more than 300 ABC Valves installed in High Profile buildings that have regularly passed monthly maintenance tests, as coordinated by the local AHJ. ABCV's have never hindered the performance of a fire system.

Respectfully submitted,

Kyle Chism

Report of the *Technical Committee on Standpipes*

Certified Amending Motion 14-18
June 2023

The ***Report of the Technical Committee on Standpipes*** is presented as found in the First Draft Report and Second Draft Report for the ***Fall 2022 cycle*** of ***NFPA 14, Standard for the Installation of Standpipe and Hose Systems.*** The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards*. The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 14*** at www.nfpa.org/14next.

The technical committee on standpipes added section 7.8.3.1 requiring hose connection caps to have one or more small diameter holes to alleviate packed pressure that can occur under certain circumstances. If a valve is tightly capped, left partially open during testing, or tampered with, or if the valve seat should leak and allow system pressure into the hose connection, the cap can become a projectile when loosened. This poses a potentially grave risk to firefighters, service technicians and building occupants and such occurrences have been documented by the contracting community.

In an effort to minimize water damage or potential injury, the committee agreed that this simple step will both alleviate the potential for packed pressure and also serve as a visual indicator of trouble at the valve should it fail as a result of fatigue or being left in an open position for whatever reason.

Section 7.8.3 requires that hose connection threads be protected, as the committee agreed that the long-standing requirement to protect threads on Class 1 hose connections should be retained. The purpose of hose valve caps is only to protect the threads and they are not required

to be pressure rated.

Respectfully submitted,

Steve Leyton
on behalf of the Technical Committee on Standpipes

Report of the *Technical Committee on Standpipes*

Certified Amending Motion 14-10
June 2023

The ***Report of the Technical Committee on Standpipes*** is presented as found in the First Draft Report and Second Draft Report for the ***Fall 2022 cycle*** of ***NFPA 14, Standard for the Installation of Standpipe and Hose Systems.*** The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards*. The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 14*** at www.nfpa.org/14next.

The technical committee reviewed and revised section 10.7.1.1 as it relates to buildings with zones, removing "partially or" from the requirement. The discussion of this issue focused on whether it was better to provide partial supply to a zone of which a portion may be beyond the fire department's pumping capability, versus none. It was the committee's consensus belief that a partial supply enhances fire fighter safety and firefighting capabilities by enabling portions of zones to be supplied at the minimum required pressure, and potentially also allows higher portions to be supplied at usable flow rates, albeit with lower residual pressures than prescribed in the standard.

This change increases the height at which fire hose lines can be supplied with pressure from the fire department engine. Where zones are wholly above the fire department pumping capability, a fire department connection is not required, and the fire department is solely relying on the in-building fire protection systems to supply their hose lines. The committee considered this when the exception was approved and strengthened the water supply redundancy requirements for zones both wholly and partially above the fire department's pumping capabilities. The option to restrict or relax this requirement can be exercised by the serving fire department, with

consideration of their own pumping capabilities and operational tactics and strategies based on those capabilities.

Respectfully submitted,

Steve Leyton
on behalf of the Technical Committee on Standpipes

Motion Substantiation

Certified Amending Motion 14-10
June 2023

CAM 14-10 moves to reject SR-36. If the CAM passes, zones partially above the pumping capabilities of the fire department would not be required to be provided with a fire department connection.

For this cycle, there was a substantial effort to codify redundancy in very tall buildings that exceed the pumping capabilities of the fire department. The reorganized 2024 edition of NFPA 14 requires an auxiliary water supply to be provided when the fire department cannot supply the required system demand through the fire department connection to any zone or *portion of a zone* (10.5.3). Additionally, the first draft report did not require a fire department connection to be provided for zones partially or wholly beyond the pumping capabilities of the fire department (10.7.1.1). In the second draft report, the provision to omit the fire department connection from a zone partially beyond the pumping capabilities of the fire department was removed. This action is not consistent with the corresponding requirements in NFPA 14 and the language in section 10.7.1.1 should revert to the first draft version.

While the fire department could theoretically partially supply a zone, it is not possible unless there is a failure of two automatic supplies. This concept is explained in the annex text to section 10.7.1.1 and contradicts the second revision text. The annex language speaks for itself and explains exactly why a fire department connection is not required for these partial zones:

> ***A.10.7.1.1*** *Where a vertical standpipe system zone spans heights that are partially or wholly beyond the pumping capabilities of the fire department, redundant automatic*

supplies are required. The maximum pumping pressure supplied at the FDC would not overcome the system pressure and would be locked in by the check valve. For the FDC in a partially supplied zone to have any material value, both redundant supplies would have to be impaired.

The presence of an ineffective fire department connection that feeds a zone that the fire department will never be able to supply adds an unnecessary cost to the system. It is unreasonable to require a fire protection feature that provides no material value. While there are arguments that fire department capabilities may improve in the future, the purpose of a minimum standard is to supply the appropriate devices and appurtenances based on the criteria available at the time of design and installation. **Zones partially beyond the pumping capabilities of the fire department do not need to be provided with a fire department connection.**

Respectfully submitted,

Kevin Hall, M.Eng., P.E., ET, CWBSP, PMSFPE

Sr. Manager, Engineering & Technical Services

American Fire Sprinkler Association

Report of the Technical Committee on Laboratories Using Chemicals

Certified Amending Motion 45-1
June 2023

The ***Report of the Technical Committee on Laboratories Using Chemicals*** is presented as found in the First Draft Report and Second Draft Report for the ***Fall 2022*** revision cycle of ***NFPA 45, Standard on Fire Protection for Laboratories Using Chemicals.*** The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 45*** at www.nfpa.org/45next.

The technical committee reviewed public input No. 33 at the first draft meeting which proposed revisions to provide Class A flame spread rating for laboratory furniture. The submitter did not provide a substantiation for the need for the Class A rating beside the potential for fires based on the occupancy of a chemical laboratory. There was an extensive discussion of the proposal and the justification for this change. The committee reviewed past laboratory fire events and did not find any events where the severity of the fire was increased due to the type of laboratory furniture that was used. In addition, since the 2004 edition NFPA 45 requires new laboratories to have automatic quick response fire sprinklers or another type of fire protection to limit the spread of fires. The use of quick response sprinklers was based on testing performed by NIST for chemical laboratories with a spill of 4 liters of a flammable liquid. The testing demonstrated the quick response sprinkler head's ability to rapidly contain the fire and to limit the temperature rise in the room. To the best of my recollection, the committee voted unanimously to reject the proposal.

During the second draft meetings, public comment No. 5 was reviewed which proposed

revised text to allow metal, limited combustible, wood, or other case furniture with a flame spread rating of 200 or less. The submitter did not provide any documentation or justification for the need for this change other than flammable chemicals are being used in laboratories. The committee again discussed the proposed change and, in the end, rejected the change based upon the lack of documentation demonstrating the need for the case furniture to have a flame spread rating of 200 or less. The use of quick response fire sprinklers in new labs will also limit the spread of fire. To the best of my recollection, the committee voted unanimously to reject the proposal.

Respectfully submitted,

Andrew Minister
on behalf of the Technical Committee on Laboratories Using Chemicals

Motion Substantiation

Certified Amending Motion 45-1
June 2023

Recommended Text if Motion Passes:
6.7 Case Furniture.
Case furniture shall be constructed of any one of the following types of materials:
(1) Noncombustible materials,
(2) Limited combustible materials,
(3) Wood materials, or
(4) Materials that comply with a flame spread index of 200 or less when tested in accordance with ASTM E84 or UL 723, without generating flaming material during the test.

Recommended Text if Motion Fails:
No Text Recommended at Second Draft.

Public input, add new language as follows:
"6.7 Case furniture
6.7.1 Case furniture, such as laboratory tables, shall have a top surface composed of noncombustible materials or of materials complying with the requirements of a Class A flame spread in accordance with Section 10.2.3 of NFPA 101."

Committee response to input: "Requirements for new case furniture to have noncombustible or Class A flame spread is not necessary for laboratories provided with quick response fire sprinklers. The submitter did not provide data to substantiate the need for this change. Additionally, this is a secondary concern in light of the flammable and explosive materials present in a laboratory."

Comment is the same as the NITMAM/CAM.

Committee response to comment: "Submitter did not provide substantial justification based upon laboratory fire data for the need to have case furniture of these types of materials in a laboratory setting. NFPA 45 requires new laboratories to have automatic quick response fire sprinklers or another type of fire protection to limit the spread of fires. Certain laboratory applications require the use of case furniture that are made of plastic materials that would not comply with the requirements of this section if the proposed changes are accepted."

Response and rationale: The issue is that "case furniture" in labs should not simply be flimsy plastic tables that can burn very vigorously. The technical committee said that there are "flammable and explosive materials present in a laboratory" but they don't feel that case furniture should be regulated. The concept by the technical committee seems, therefore, to be that, since there are "flammable and explosive materials" any other products (such as furniture) that could be present don't need to be regulated because it is already such a dangerous environment. That sounds scary.

I understand that the committee believes that sprinklers will solve any fire safety problem, but many environments require additional protection and eliminating the presence of very easily

combustible furniture should not be a serious burden. The response by the committee to the public comment was different than that to the public input (although the only difference between the public input and the public comment is that the latter offered more options, of intermediate fire performance): now the committee states that it wants to have plastic furniture (even if it burns vigorously). That is even scarier, since the plastic furniture, when it ignites, may result in the ignition of some of the "flammable and explosive materials" present, and cause a serious problem.

The committee believes that the fact that I am not aware of actual laboratory fire losses, we shouldn't try to prevent them.

The proposed added language is a simple safety requirement that should be used in "laboratories using chemicals", which should not bring in unnecessary products that can be dangerous.

Respectfully submitted,

Marcelo M. Hirschler – GBH International

Report of the *Technical Committee on Liquefied Petroleum Gases*

Certified Amending Motion 58-5/58-6/58-7
June 2023

The ***Report of the Technical Committee on Liquefied Petroleum Gases*** is presented as found in the First Draft Report and Second Draft Report for the ***Fall 2022 cycle*** of ***NFPA 58, LP-Gas Code***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards*. The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 58*** at www.nfpa.org/58next.

The proposed amending motions seek to delete second revision 16, which aims to change the output pressure of the dispensing system for self-service engine fuel dispensers from 312 psig to 350 psig. At the time of the second revision it was unknown if the container relief valves and other downstream components could handle the initially proposed 350 psig outlet pressure, and the technical committee proposed a lower output pressure to 312 psig to prevent damage to downstream components and prevent relief valves from discharging when filling engine fuel containers.

Respectfully submitted,

Eric Smith
on behalf of the Technical Committee on Liquefied Petroleum Gases

Motion Substantiation

Certified Amending Motion 58-7
June 2023

Certified Amending Motion 58-7 is submitted to address a question left open at the conclusion of the meeting of the Technical Committee on LP-Gas to develop the Second Revisions for the 2024 edition of NFPA 58. The issue pertains to the required maximum output pressure for a dispensing system used to refuel propane-powered vehicles at public refueling stations. Previously, there had been no requirement in NFPA 58 for maximum output pressure on such dispensers, but UL 495 "Power-Operated LP-Gas Dispensing Equipment" had contained a limitation on a pump bypass pressure of a maximum of 350 psig.

At the second draft development meeting, the Technical Committee voted to reduce the previously approved pressure of 350 psig (FR No. 60) to 312 psig in order to maintain the most conservative value, which was based on the minimum MAWP (Maximum Allowable Working Pressure) required for ASME containers installed on vehicles. This action was taken with knowledge by the Technical Committee that a research effort had been undertaken to establish a firm scientific basis for a maximum safe output pressure that is still capable of achieving reasonable fill times for vehicles. It was fully expected by the Technical Committee that a NITMAM would be developed and submitted for consideration at the Technical Session of NFPA in June.

The testing was performed by Southwest Research Institute in San Antonio and was funded by the Propane Education and Research Council (PERC). The report has been disseminated to the Technical Committee and is available to NFPA members upon request. The approach taken was to simulate the most adverse conditions for filling a container, which would be when the product in both the storage container for the dispenser and the receiving container on the vehicle were at the warmest temperatures achievable without

a relief valve activation. The temperatures for the product in the vehicle container approached 120 °F and the temperature in the storage container was well over 100 °F.

The discharge pressure at the outlet of the dispenser was set at 350 psig and successful outcomes were obtained under a variety of fill conditions that included tests at 10%, 40% and 75% liquid full. Because of the success observed at 350 psig discharge pressure, further testing was conducted at 375 psig and 400 psig discharge pressures with only two tests at 400 psig exhibiting vehicle tank pressures of 300 psig and 312 psig.

In conclusion, the data supports this NITMAM and provides a solid technical basis to approve the change back to 350 psig for the output pressure of the dispensing system for refueling propane-powered vehicles.

Respectfully submitted,

Bruce Swiecicki
Vice President, Regulatory and Technical Services
National Propane Gas Association
bswiecicki@npga.org

Report of the *Technical Committee on Motion Picture and Television Industry*

Certified Amending Motion 140-1
June 2023

The ***Report of the Technical Committee on Motion Picture and Television Industry*** is presented as found in the First Draft Report and Second Draft Report for the ***Fall 2022 cycle*** of ***NFPA 140, Standard on Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations.*** The revisions were submitted to letter ballot of the responsible Committee(s) in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 140*** at www.nfpa.org/140next.

The motion seeks to accept Public Comment No. 1, which was rejected but held by the technical committee on the basis of the subject being deemed to be new material in accordance with 4.4.4.2 of the *Regulations Governing the Development of NFPA Standards*, which states, "Public Comments must be related to material that has received public review either through the submission of Public Input, Committee Input, or Correlating Input or through the first revisions. The technical committee may reject but hold any Public Comment that introduces "new material" or that has not had adequate public review…" In his submittal of Public Comment No. 1, Dr. Hirschler identified First Revision No. 1 as the related item; however, First Revision No. 1 related to Subsection 2.3.1, which updates UL publications, and was unrelated to the subject of Public Comment No. 1. Dr. Hirschler acknowledged that the subject of Public Comment No. 1 was new material in his substantiation, which states, "I understand this was not discussed at the first draft meeting but it does not introduce any requirements." Although the proposed Annex A language does not introduce new requirements, it does introduce new material, which will be held for the

next revision cycle. It is noted that the technical committee took no position with respect to the technical content of Public Comment No. 1. It was rejected but held strictly based on the procedures specified by the Regulations.

Respectfully submitted,

Hamid Bahadori
on behalf of the Technical Committee on Motion Picture and Television Industry

Motion Substantiation

Certified Amending Motion 140-1
June 2023

Recommended Text if Motion Passes:
A.4.5.3
In the motion picture and television industry, cut greens are vegetation separated from the live portion of the plant. One example of a standard test method that has been developed to assess the effectiveness of fire retardant treatments for natural vegetation (including natural Christmas trees) is ASTM E3082 Standard Test Methods for Determining the Effectiveness of Fire Retardant Treatments for Natural Christmas Trees (2020), which includes two fire tests: a small-scale test that would apply to "cut greens" and a full-scale test that would apply to full-scale cut trees. The standard has an actual set of acceptance criteria, which would help operators to distinguish between adequate treatments (that would increase fire safety) and inadequate treatments (that often lead to dried out vegetation and could lower fire safety).

The technical committee rejected this public comment because it is new material. I fully agree that this material has no associated public input.

However, what is being proposed is annex material, meaning that it is, of course, not a requirement but simply information that would help those in the industry know that a tool exists for dealing with the potential problem of having combustible natural vegetation in the motion picture (or TV) environment, I pointed out in my reason statement that the relevant codes (NFPA 101 and IFC) have already adopted this test method as a requirement. This means that there is precedent.

There are multiple examples (including a notable fire in a government building) of cases where the use of ineffective flame retardant treatments resulted in a natural tree drying out too early and catching on fire, with potentially severe consequences. In fact, the use of ineffective flame retardant treatments can also lead to a natural tree shedding all its leaves prematurely (as happened in the Rhode Island Statehouse in 2005).

Adding this language (which can be done, even though it is new material, if the membership agrees, and the committee does not oppose it) will provide guidance to the industry without mandating anything. The industry may also be encouraged to look at the code requirements and decide that conducting such tests would be useful.

In any case, even if the added language does not result in actual testing, it will do no harm but will provide a helpful warning.

Respectfully submitted,

Marcelo M. Hirschler – GBH International

Report of the *Technical Committee on Fire Tests*

Certified Amending Motion 260-24
June 2023

The ***Report of the Technical Committee on Fire Tests*** is presented as found in the First Draft Report and Second Draft Report for the ***Fall 2022 cycle*** of ***NFPA 260 Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 260*** at www.nfpa.org/260next.

In 2011, the standard commercially available cigarette was replaced with a banded cigarette that met specific performance criteria to reduce ignition propensity. The banded cigarettes very frequently self-extinguish when placed on a test substrate which made testing with a continuous ignition source difficult for test labs. NIST developed a Standard Reference Material (SRM 1196) that could burn its full length, which met the need of the NFPA 260 and other soft furnishing test methods. This cigarette was required as the ignition source in NFPA 260 from 2013 until the supply diminished in 2018. In 2020, NIST released a new SRM 1196a as the first in a series of replacement cigarettes.

The committee reviewed the commenters concerns and currently Section 4.3 of NFPA 260 provides specific tolerances for both packing density and total weight which the TC has determined are the correct values. Additionally, the committee has provided extensive clarification text within the annex supporting the use of the NIST SRM 1196a cigarettes. As with the transition from SRM 1196 to 1196a, should NIST find a need to modify the SRM the Technical Committee will review any proposed changes at the appropriate time.

Respectfully submitted,

Art Parker
on behalf of the Fire Test Committee

Report of the *Technical Committee on Fire Tests*

Certified Amending Motion 286-14/286-15/286-16
June 2023

The ***Report of the Technical Committee on Fire Tests*** is presented as found in the First Draft Report and Second Draft Report for the ***Fall 2022 cycle*** of ***NFPA 286, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 286*** at www.nfpa.org/286next.

In May 2020, the Fire Test Committee established a task group to draft a public input for NFPA 286 on mounting methods for bathroom partitions. The task group presented their work at the March 2021 First Draft meeting and a Committee Input was developed. The new language includes stud spacing, fastener details, and panel wall coverage details. Further revisions were made during the Second Draft through a Public Comment and resulting Second Revision. The SR received two editorial ballot comments, one negative comment and 20 affirmative votes. A supplemental ballot was conducted to revise errors in Figure 5.12.2.

Respectfully submitted,

Art Parker
on behalf of the Fire Test Committee

Report of the *Technical Committee on Industrial Trucks*

Certified Amending Motion 505-1
June 2023

The ***Report of the Technical Committee on Industrial Trucks*** is presented as found in the First Draft Report and Second Draft Report for the ***Fall 2022 cycle*** of ***NFPA 505, Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 505*** at http://www.nfpa.org/505next.

The 2018 edition of NFPA 505 requires that exchangeable or removable LP gas cylinders be removed from a truck prior to being refilled. During the current code cycle, a First Revision was created to revise this mandatory language to permit the refilling of exchangeable or removable LP gas cylinders while still attached to a truck. After receiving several Public Comments which voiced safety concerns over refilling such LP gas cylinders while still mounted on a truck, the committee created Second Revision No. 4 which reverted the minimum requirements back to the 2018 text. These two revisions result in no change to the current text of NFPA 505 and will still require exchangeable or removal LP gas cylinders be removed from trucks prior to being refilled. The technical committee passed Second Revision No. 4 on ballot with 6 affirmative votes and 0 negative votes with 5 ballots not returned.

Respectfully submitted,

Joseph M. Bablo
on behalf of the Technical Committee on Industrial Trucks

Report of the *Technical Committee on Commissioning and Integrated Testing*

Certified Amending Motion *4-1*
June 2023

The ***Report of the Technical Committee on Commissioning and Integrated Testing*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 4, Standard for Integrated Fire Protection and Life Safety System Testing***. The revisions were submitted to letter ballot of the responsible Committee(s)s in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 4*** at www.nfpa.org/4next.

My name is Kim Gruner, chair of the Technical Committee on Commissioning and Integrated Testing. I am speaking to support the committee's position and against the motion.

Mr. Koffel seeks to reject Second Revision No. 2 which was added to the standard at the second draft stage after soliciting the public with a committee input. The ballot results for SR-2 were out of 36 eligible voters, 30 voted affirmative, 3 voted negative, 2 were not returned, and 1 voted to abstain.

In its statement to create a Second Revision based on three Public Comments, Public Comments 2, 3, and 4, the committee indicated that the changes provide clarification in order to differentiate which fire protection and life safety components, systems, assemblies, barriers, and other features are to be included in the integrated fire protection and life safety system test and which are not. Extensive annex material was added to describe typical active integrated systems and other systems that should be in place as needed for the integrated test, as well as typical passive fire protection features.

I encourage the body to uphold the technical committee action and vote against the motion on the floor.

Respectfully submitted,

Kim Gruner
on behalf of the Technical Committee on Commissioning and Integrated Testing

Motion Substantiation

Certified Amending Motion 4-1
June 2023

For the record, Koffel Associates has a number of clients who are impacted by the action associated with CAM 4-1 but I have not submitted CAM 4-1 on behalf of any of our clients. Those clients that could be impacted by the action on CAM 4-1 include: AMCA International, Fire Safe North America, Firestop Contractors International Association and the Glazing Industry Code Committee.

I encourage you to support CAM 4-1 for several reasons:

1. The NFPA membership supported a similar CAM during the last revision cycle. While the Committee has made some changes during this revision cycle, the CAM is flawed. I encourage you to review the comments contained in the negative ballots for reasons that I may not include herein.
2. The Committee Statement indicates that SR-2 is a "clarification' when in fact, it is a substantial technical change that goes against the NFPA membership vote on the issue last cycle. As required by NFPA Regulations, there has been no technical substantiation provided for the technical changes in SR-2.
3. The language in SR2 creates conflicts within the document including: Paragraph 1.1.2 (passive fire protection features are not include); Paragraph 1.1.3 (passive fire protection systems are to be …..); and Paragraph 1.3.3 (This standard shall not provide requirements for testing of passive fire protection ….) Does the standard address passive fire protection features or not?

4. In addition, the proposed language in SR-2 refers to the same building component in three different ways: passive fire protection features (1.1.2), passive fire protection systems (1.1.3) and passive fire protection barriers and assemblies (A.1.2.2).
5. Inappropriate assumptions: Paragraph 1.1.3 indicates that passive fire protection features are tested as otherwise required. However, if a through penetration firestop system is required to have a certain L rating to maintain a pressure differential, there is no field test for that installation other than a destructive special inspection. The ability of the enclosure to maintain the pressure differential is only achieved by testing the installed passive fire protection feature with the active smoke control system.
6. Inappropriate assumptions: Paragraph 1.1.3 assumes that if a passive feature is tested during construction it will continue to be equally effective throughout the useful life of the building and no further testing is necessary.
7. Inappropriate assumptions: Paragraph A.1.1.3 indicates that passive fire protection systems are inspected and tested to verify proper installation. What is the test for proper installation (construction) of a smoke barrier that provides a boundary of a smoke control zone? There is no test protocol identified in NFPA 101. The inspection and test of the smoke barrier should be part of the test of the smoke control system during commissioning and periodically thereafter. The same can be said for fire barriers forming the compartment enclosure for clean agent systems.
8. Technical flaws: Windows that are part of a smoke control system are included but not windows that may be part of an enclosure for a clean agent system.
9. Technical flaws: Dampers that are controlled from a fire alarm system but not dampers controlled by a BMS or a smoke control system panel. Or, is one to assume that such

dampers are addressed in Item 9(b) as “other opening protectives”? Note, however, that 9(b) only applies to smoke control systems and not other active systems that require a certain integrity to the enclosure.

10. Technical flaws: Stairway door access control but not stairway door unlocking to permit re-entry into the building.

The purpose of NFPA 4 is to verify that various active and passive fire protection features, that together form an integrated fire protection system, are properly tested. The technical changes in SR-2 limit the scope of such testing to certain features and systems and is no longer all inclusive. Do we really need terminology such as active fire protection systems, passive fire protection features, and active portions of passive fire protection features.

Respectfully submitted,

William E. Koffel, P.E., FSFPE, SASHE

Report of the *Technical Committee on Automotive and Marine Service Stations*

Certified Amending Motion 30A-30
June 2023

The ***Report of the Technical Committee on Automotive and Marine Service Stations*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages***. The revisions were submitted to letter ballot of the responsible Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 30A*** at www.nfpa.org/30Anext.

The committee does not agree that Chapter 8 of 30A and Articles 511, 514, and 625 of NFPA 70 adequately address EV charging at a motor fuel dispensing facility. Existing codes only address the EV power transfer equipment and not the EV or the area where the activities associated with EV charging take place. EV power transfer systems are significantly higher power units that are part of a fueling activity requiring interaction by a driver to initiate and complete a power transfer. Further, none of the codes identified address EV charging activity or occurrence of temporary hazards (spills, releases) associated with flammable liquid and gases, only the installation of EV Power Transfer systems.

While NEMA states that they are "not aware of a single reported injury, death, or loss of property as a result of shock, electrocution, fire, or arc flash due to a hazard arising with the installation or use of electric vehicle power transfer systems at these facilities," incidences of lithium-ion batteries igniting during charging events or just sitting idle have been reported and have been associated with battery recalls to repair/replace defective batteries. Further, uses and misuse of an EV and the power transfer system over time could affect the performance of this

equipment and increase potential ignition/fire risks associated with vehicle charging. In addition, spills and releases from liquid fueling equipment can impact the charging area placing the facility, driver, other patrons, and vehicles at risk.

Specific requirements for EV Charging in 15.2 are appropriate to provide definitions of key terms so users understand the requirements of the chapter. EV Power Transfer Systems (EVPTS) described in NFPA 70 Article 625 was added in response to comments; however, the remaining definitions are important to the understanding of the requirements for EV Charging. Definitions are extracted from NFPA 70 and NFPA 855 with the exception of the "EV Charging Area" (EVCA), which defines the area to be outside the hazardous (classified) areas and the "Tank Vehicle," which is defined to include both a cargo mounted tank and a tractor and semi-trailer. Further, the definition of Electric Vehicle Charging Area is essential to the identification of the EV charging area for purposes of the hazardous (classified) areas.

Requirements establishing hazardous (classified) areas address both the permanent hazard associated with the dispenser and other fixed equipment and the temporary hazard (spills and releases) associated with dispensing and transfer of flammable and combustible substances. While hazardous (classified) areas are defined in Chapter 8 of this document, the proposed hazardous (classified) areas restrict EV charging activities within the hazardous (classified) areas regardless of the height of the EV Power transfer system and connection to the EV. ESS are being installed as standalone equipment as part of the control equipment for the EV power transfer systems. Therefore, reference to ESS has been retained for purposes of the hazardous (classified) areas and other requirements in the proposed chapter.

Developing charging area design requirements to minimize movement through the area by vehicles other than those intending to charge is consistent with the requirements of section 6.3.7

for dispensing equipment. Damage to EV power transfer systems and the EV could result in an electrical hazard or fire.

Specific emergency shut-off requirements are appropriate because while the EV power transfer system has breakers and shut-off switches at control panels, an emergency stop provides an easy to locate and single use location for a person charging a vehicle to ensure that the power has been disconnected from the charging unit and all dispensing equipment.

EVCA signage requirements providing information to respond to an emergency are consistent with the requirements of section 9.5.3 for motor fueling areas.

Providing a fire extinguisher in the EV charging area is prudent. While it is recognized that a fire extinguisher may not be appropriate for a battery fire but may reduce potential for the fire to spread to other areas or persons.

The sections in Second Revision SR-8 were introduced in First Revision FR-31 which had a vote of 27 affirmative and 2 negative. FR-31 was revised by SR-8 and had a vote of 28 affirmative and 2 negative.

Respectfully submitted,

R.B. Laurence
on behalf of the Technical Committee on Automotive and Marine Service Stations

Motion Substantiation

Certified Amending Motion 30A-30
June 2023

CAM 30A-30 asks the NFPA membership to consider the recommendations in PC-34 that deletes all the unsubstantiated and unnecessary requirements added to the code by FR-31 and SR-8. If approved, the installation, protection, operation, and maintenance of electric vehicle power transfer systems in Chapter 15 of the code will read as follows:

> **Chapter 15 Electric Vehicle Charging Stations Power Transfer Systems**
> **15.1 Scope.** This chapter shall apply where electric vehicle power transfer systems are installed at a motor fuel dispensing facility or repair garage.
> **15.3 General Installation Requirements.**
> **15.3.1** Electric vehicle power transfer systems shall be installed in accordance with NFPA 70 and the manufacturer's installation instructions.
> **15.4 Operation and Maintenance.**
> **15.4.1** Electric vehicle power transfer systems shall be protected against collision damage by bollards or other approved means.
> **15.4.2*** Electric vehicle power transfer systems shall be operated and maintained in accordance with the manufacturer's instructions.
> **A.15.4.2** See Chapter 34 of NFPA 70B for additional guidance.

NEMA does not believe any of the criteria in this new Chapter have been substantiated with cases studies or documented incidents at motor fuel dispensing facilities or repair garages where electric vehicle power transfer systems have been installed. NEMA is not aware of a single reported injury, death, or loss of property as a result of shock, electrocution, fire, or arc flash due to a hazard arising with the installation or use of electric vehicle power transfer systems at these facilities. NEMA believes these rules are overly restrictive, discriminate against one class of electric equipment, and are not within the scope of this code. Furthermore, NEMA believes all the necessary safety criteria is already found in Chapter 8 of the code and Articles 511, 514, and 625 of NFPA 70.

The installation and use of electric vehicle power transfer systems at motor fuel dispensing facilities or repair garages in accordance with NFPA 70 are no less safe than the installation and use of other electrical equipment typically associated with these facilities such as tire inflation machines, automotive vacuum machines, vending machines, and electrical ice storage coolers. This installation and use of electric vehicle power transfer systems does not increase the risk of an electrical or fire hazard at motor fuel dispensing facilities or repair garages.

NEMA is uncertain the scope of the code and purview of the technical committee includes requirements covering the installation, protection, operation, and maintenance of electric vehicle power transfer systems that significantly exceed the criteria already found in Chapter 8 of the code and Articles 511, 514, and 625 of the NFPA 70. The scope and responsibility of the Automotive and Marine Service Stations (AUV-AAA) committee is absent of any language indicating "primary responsibility for documents on minimizing the risk of electricity as a source of electric shock and as a potential ignition source of fires and explosions", or "for text to minimize the propagation of fire and explosions due to electrical installations." This is, however, exactly what the scope and responsibility of the National Electrical Code® (NEC-AAC) committee is.

NEMA further believes the makeup of the technical committee does not have a sufficient number of members with the technical expertise needed to properly evaluate electrical equipment of this nature. Relevant stakeholders such as EVSE manufacturers, EV manufacturers, and electrical code experts were not included in or even consulted with during the development of the First Draft and was only asked to provide input after the committee received a multitude of public comments expressing opposition to the proposed requirements in the new Chapter. It should be noted that not a single concern from the NFPA 30A technical committee was expressed to the relevant code

making panels (12 and 14) during the development of the NFPA 70-2023 where there is extensive technical expertise on the potential hazards of electrical equipment at special occupancies.

NEMA urges the NFPA membership to approve this motion.

Respectfully submitted,

Megan A. Hayes
Vice President, Standards and Technical Services
National Electrical Manufacturers Association (NEMA)

Report of the *Technical Committee on Automotive and Marine Service Stations*

Certified Amending Motion 30A-5
June 2023

The ***Report of the Technical Committee on Automotive and Marine Service Stations*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages*.** The revisions were submitted to letter ballot of the responsible Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 30A*** at www.nfpa.org/30Anext.

The submitter indicated that regulating electrical equipment as a source of ignition is not within the scope of the Technical Committee. The Technical Committee scope is safeguarding against fire and explosion hazards associated storage, handling, and dispensing of flammable liquids and control of fire hazard and fire protection at automotive and marine service stations. This includes potential sources of ignition/fire hazards and requirements to protect against potential fire risks. The deletion of 1.1.6 was rejected because it is necessary to clarify that reasonable safeguards associated with the activity of charging an electric vehicle in proximity to the storage, handling and dispensing of flammable liquids and gases are within the scope of this document.

The purpose of the 30 m (100 ft) requirement is to limit the footprint of the operations relative to dispensing and tank filling at a service station in cases where the refueling activities are on a large property that has areas that are not affected by these operations.

Section 1.1.6 was added by First Revision FR-31 which had a vote of 27 affirmative and 2 negative, and revised by Second Revision SR-8 which had a vote of 28 affirmative and 2 negative.

Respectfully submitted,

R.B. Laurence
on behalf of the Technical Committee on Automotive and Marine Service Stations

Motion Substantiation

Certified Amending Motion 30A-5
June 2023

CAM 30A-5 supports the position to delete the scope addition sentence 1.1.6 attempting to regulate EV charging at service stations, repair garages, etc.

Regulations violation.

This scope addition attempts to address the "**risk of electricity as a . . . potential ignition source of fires and explosion . . . or propagation of fire and explosions due to electrical installations**" but those are the primary responsibility committee NEC-AAC. See substantiation for CAM 30A-24, 8, 13, 15, 22, 23, 10 and 14 (preferred sequence).

The scope of this Committee, namely AUV-AAA, is primary responsibility for "safeguarding against fire and explosion hazards **associated with** the general storage, handling, and dispensing of **flammable and combustible liquids** **at . . . service stations**, farms, and isolated construction sites and **with related activities such as dispensing gaseous fuels** . . . also . . . construction, control of fire hazards, ventilations, fire protection, and maintenance of repair garages."

The Regs state that a committee activity shall be in accordance with the scope approved by the Standards Council (SC), see Regs 3.3.1.1. and 3.1.1. A committee that wishes to change its scope should request prior approval of the SC, who prevent and eliminate any conflicts or overlapping of responsibility. Without pre-approval the committee is in violation of 3.3.1, 3.3.3, 3.3.5.5, and others. Where issues span standards, the **primary** committee leads and if necessary a correlating committee is established (eg. to correlate with Propane, Nat Gas, Hydrogen, ESS standards for example).

Correlating committees coordinate the activities of other technical committee(s) that is/are dealing with a subject that falls within the primary charge of another technical committee.

While this committee has suggested they are regulating the "related activities" of EV charging, we refute that EV charging is a **related** hazard associated with storage, handling, and dispensing flammable and combustible liquids, at least no more than being related to dispensing other flammable liquids/gases such as Propane, Nat Gas, and Hydrogen, or near other hazardous locations not associated with storage, handling, or dispensing flammables at service stations or repair garages. Related activities, and far more dangerous ones, are already addressed in Chapter 9, like welding per 9.7.2. The revisions appear rushed and lack coordination with the rest of the standard and other standards (see other CAMs noted).

While significant changes were made in the SDR, they were superficial and are inadequate. The limitations imposed by NITMAMs compel us to delete the text as we can't revise it adequately.

Reason the scope addition should deleted, and why this doesn't itself create a problem:

The proposed scope covers an area within 100 ft of flammables and defines EVCA to the full extent of the output cable "in all directions". I have taken personal professional responsibility for design of DC Fast Charging at gas stations, with a large, heavily regulated, public utility, two oil and gas companies, and others, and we often specify output cables up to 25' long (the maximum before cable management is required by the NEC 625.17(C)), to ensure the charging port of the EV can be reached regardless of where it is on the EV (they vary considerably), not because the vehicle is likely to be located that far away (as it would be in the drive aisle or other inconvenient location). The vehicle can almost always be found in a two-stall area centered on the charger (due to left-side / right-side charge port drivers parking with that side in line with the charger when space is available – as they do with gas pumps). So "full extent" is excessive.

The extent of a hazardous location within NFPA 30A, per section 8.3, is up to 20 ft, and height limited (mostly 18 inches), not "in all directions" including backward, upward, and/or across obstacles. The proposed section 15.3.2.1 is similar, but far less detailed (not coordinated).

Permitting this scope means that at least some of the requirements, eg. 15.3.3, go from being applicable within 45 feet (20+25) to 125 feet (100+25) or more, and still apply even if there are separating non-combustible walls or partitions, or the area is unusable. This scope, and many other changes, are not coordinated/correlated, or justified, thus unacceptable.

While there is opportunity for improvement in the applicable codes and standards, the best location to start is the NEC, not NFPA 30A. The NEC is adopted in all fifty states, and applicable to every hazardous location, not just filling stations, and the NEC CMP would be able to engage and coordinate with all the appropriate committees and access the appropriate knowledge, expertise, and experience. See substantiation for CAM 30A-24.

The reason deleting the scope addition doesn't itself create a problem is that electrical equipment is already covered within Chapter 8, and the hazardous locations defined there are more comprehensive and better correlated, and those areas are repeated in the NEC Article 500 (501 or 505), 511 and especially 514.

By deleting this change of scope, we offer NFPA the opportunity to follow the correct process. By not deleting it we facilitate creating conflict, overlapping responsibility, and miscoordination.

Respectfully submitted,

Kevin Cheong, P.Eng., RCDD, LEED AP

Report of the *Technical Committee on Automotive and Marine Service Stations*

Certified Amending Motion 30A-24
June 2023

The ***Report of the Technical Committee on Automotive and Marine Service Stations*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages***. The revisions were submitted to letter ballot of the responsible Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 30A*** at www.nfpa.org/30Anext.

The scope of the committee is safeguarding against fire and explosion hazards associated storage, handling, and dispensing of flammable liquids and control of fire hazard and fire protection at automotive and marine service stations. This includes potential sources of ignition/fire hazards and requirements to protect against potential fire risks. This section is added to clarify that reasonable safeguards associated with the activity of charging an electric vehicle in proximity to the storage, handling and dispensing of flammable liquids and gases is within the scope of this document. Chapter 15 addresses the activity of charging an electric vehicle in proximity to the storage, handling and dispensing of flammable liquids and gases.

Section 15.1 was added by First Revision FR-31 which had a vote of 27 affirmative and 2 negative and revised by Second Revision SR-8 which had a vote of 28 affirmative and 2 negative.

Respectfully submitted,

R.B. Laurence
on behalf of the Technical Committee on Automotive and Marine Service Stations

Motion Substantiation

Certified Amending Motion 30A-24
June 2023

CAM 30A-24 supports the position to delete the scope of Chapter 15 attempting to regulate EV charging at service stations, repair garages, etc.

Regulations violation.

See substantiation for CAM 30A-5, 8, 13, 15, 22, 23, 10, 14 (preferred order). Attempting to add the regulation of EV Charging, and ESS, to the scope of NFPA 30A (TC AUV-AAA), is a violation of the Regs, which is a fundamental requirement of all committees (see Reg 3.3.3), as it is already another TC's scope (NEC-AAC), or TC ESS-AAA.

It's noteworthy that we knew there must be a rules violation because it was resulting in very problematic code, we merely had to find the violations in the appropriate documents.

The limitations for NITMAMs, compel us to delete the text as we can't revise it.

Technical reason the scope addition should deleted, and why this doesn't itself create a problem:

Lack of coordination, even within the same standard:

This scope, and many other changes, are questionably coordinated/correlated, justified, or acceptable. For example, the hazardous locations of 15.3.2.1 are substantially different than those of section 8.3. (which also refers to the NEC): referring to "flammable" rather than "Class I liquids" (8.3.1 & 8.3.3); **not defining Division or Zone** (Div 2, Zone 2?); not exempting consumer-grade mobile devices (8.3.1.1); not indicating height (8.3.3, 50 mm?); not exempting areas beyond a wall or other solid partition (8.3.5); not allowing AHJ to determine extent (8.3.6); not exempting Class II or Class III liquids (8.3.8); not covering the same possible locations and

devices (8.3.3) thus making unclear what applies for gravity ventilation indoor dispenser for example. So, how are Chapter 8 and 15 to be used together? This lack of coordination also applies to several portions of Chapter 9 related to operations and tank filling delivery vehicles, etc.

Lack of knowledge, competency, technical and scientific bases (Regs terms):

Regs 3.3.6 states committees shall base recommendations "on fire experience, research data, engineering fundamentals, or other such information as may be available", and Regs 3.2.4.1 requires "Evidence of knowledge and competence" for TC members. The Guide for the Conduct of Participants in NFPA Standards Development Process states (3.3(b)) TC "members should maintain a high level of knowledge and competency in the areas of interest and/or expertise that are related to their activities", and (3.3(c)) "should base all . . . activities on sound technical and scientific bases", and the Regs indicate such guides are to be followed (see 3.4.3(f), etc.)

NFPA Fire Protection Research Foundation published reports entitled: "Vehicle Fires" in March 2020; "Service or Gas Station Fires" in Dec 2020, "Modern Vehicle Hazards in Parking Structures and Vehicle Carriers" in July 2020, with updates in NFPA Today on Nov 28, 2022; "Hazard Assessment of Lithium Ion Battery Energy Storage Systems" in Feb, 2016; and "Fire Safety Challenges of 'Green' Buildings and Attributes" in Oct 2020. We've also referenced a study by AutoInsuranceEZ released Jan 21, 2022, updated Nov 11, 2022, based on data up to 2021 from the National Transportation Safety Board (NTSB), Bureau of Transportation Statistics (BTS), and government recalls data from Recalls.Gov, and since then analysis by EVFireSafe.com, referenced by NFPA in their articles, updated Apr 2023, and a 2019 petition to National Highway Traffic Safety Administration regarding Tesla Model S and X while fast charging, with its conclusion reported in 2021. NHTSA also published "Lithium-Ion Battery Safety Issues for Electric and Plug-in Hybrid Vehicles" in Oct 2017. None of these support electric vehicles being treated as or

more dangerous than other cars, even at filling stations. Internal combustion cars are permitted in the hazardous locations, in unlimited quantities.

While EV fires are different, NFPA is focused more in recent articles on firefighting techniques (water lance, cold cutting, etc.), stranded energy (re-ignition), and light electric vehicles (e-bikes, etc.) not more regulation of EV charging.

While there are conceptual similarities between recharging an EV and refueling an internal combustion engine car, that does not mean that electricity needs to be treated like gasoline, nor that an expert in gasoline dispensing is an expert in EV charging.

The idea that EV charging needs to be regulated within 125 feet, or more, is unjustified.

The reason deleting the scope addition doesn't itself create a problem is that electrical equipment is already covered within Chapter 8, and section 1.1, and the hazardous locations defined there are more comprehensive and better correlated as they are repeated in the NEC Article 514, or 511, etc., which is more broadly adopted than this standard. If this TC can't correlate Chapter 8 and Chapter 15, then NEC articles 511 and 514, etc., can't either, which is unacceptable.

Summary:

By deleting this change of scope, we offer NFPA the opportunity to follow the correct process outlined in the Regs and engage appropriate knowledge, competence, expertise, and sound technical and scientific bases for changes, using NFPA's own research, etc.. By not deleting it we facilitate creating conflict, confusion, overlapping responsibility, and miscoordination.

Respectfully submitted,

Kevin Cheong, P.Eng., RCDD, LEED AP

Report of the *Technical Committee on Automotive and Marine Service Stations*

Certified Amending Motion 30A-8
June 2023

The ***Report of the Technical Committee on Automotive and Marine Service Stations*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages*.** The revisions were submitted to letter ballot of the responsible Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 30A*** at www.nfpa.org/30Anext.

EVPTS is discussed in NEC Article 625, and 625.1 indicates that the article covers electrical conductors and equipment connecting an electric vehicle to premises wiring for the purposes of charging, power export, or bidirectional current flow. This provides the basis for the meaning of EVPTS.

The scope of the committee is safeguarding against fire and explosion hazards associated storage, handling, and dispensing of flammable liquids and control of fire hazard and fire protection at automotive and marine service stations. This includes potential sources of ignition/fire hazards and requirements to protect against potential fire risks.

EV power transfer systems are different than a tire inflation machine, vacuum or vending machine and that existing codes do not adequately address potential risks associated with EV charging at a motor fuel dispensing facility. Further, once a vehicle is connected to a charger, the combined vehicle, connector, cable and charging equipment are an electrical appliance subject to requirements associated with hazardous (classified) areas.

Further it is appropriate and consistent with other activities addressed in the code to add a specific chapter to address a unique activity. EV charging is significantly different than the placement of other fixed electrical equipment that may be installed at a motor fuel dispensing facility. Existing codes including Chapter 8 address the EV power transfer systems, but not the vehicle and charging activity or occurrence of temporary hazards (spills, releases) associated with the flammable liquid and gas storage, handling, and dispensing. EV power transfer systems are significantly higher power units that are part of a fueling activity requiring interaction by a driver to initiate and complete a power transfer. Further, NFPA 70 does not address EV charging, only the installation of EV Power Transfer systems. Incidences of lithium-ion batteries igniting during charging events or just sitting idle have been reported and have been associated with battery recalls to repair/replace defective batteries. Uses and misuse of an EV and the power transfer system over time could affect the performance of this equipment and increase potential ignition/fire risks associated with vehicle charging. In addition, spills and releases from liquid fueling equipment can impact the charging area placing the facility, driver, other patrons, and vehicles at risk.

Section 3.3.8 was added by First Revision FR-31 which had a vote of 27 affirmative and 2 negative and revised by Second Revision SR-8 which had a vote of 28 affirmative and 2 negative.

Respectfully submitted,

R.B. Laurence
on behalf of the Technical Committee on Automotive and Marine Service Stations

Motion Substantiation

Certified Amending Motion 30A-8
June 2023

CAM 30A-8 supports the position to delete the portion of EVCA that includes the EV and full extent of the cable in all directions.

Regulations violation:

See substantiation for CAM 30A-5, 24, 13, 15, 22, 23, 10 and 24 (preferred order), as this committee has no right to attempt to lead regulating EV Charging distant (especially so distant) from hazardous locations related to dispensing or handling flammable liquids.

Lack of justification/expertise:

While conceptually like refueling an ICE car, recharging an EV is a different set of risks from a fire hazards perspective, and could just as easily be argued to be more like charging a laptop or phone as those devices are similarly tightly regulated products (unlike early inexpensive e-Cigarettes or hoverboards). The TC also lacks the grounds to, or expertise to regulate EV charging, and any such requirements should apply to all locations of EV charging if near a hazardous location (LPG, NatGas, Hydrogen, other). Such attempts should be led by the NEC, and coordinated for consistency with other committees/standards, ideally by a coordinating committee.

We have referenced several NFPA Research Foundation reports, articles, and other reputable sources of information and statistics related to lithium-ion battery, vehicles, fueling stations, and EV charging fire or shock risk, including during firefighting, and none support the extent of changes suggested by this TC in this code. We have indicated where in the NEC, and other sections of this standard (like Ch.8 & 9), and other standards (like NFPA 385), the requirements are

partially or fully covered, and thus where recommended (with substantiation) changes should be made.

Lack of jurisdiction/enforceability:

This definition attempts to include the EV and more than an entire semi-sphere created by the output cable (since it is connected to the charger above grade, so the region formed could be a considerable portion of a full sphere for elevated connections). EVs vary in size and charge port location, and chargers vary in cable length and where it connects to the charger. Also, the output cable often needs replacement due to wear or damage to the plug, which may change the length somewhat. The attempt to define the EVCA (not defined in Article 625 of the NEC!) implies that the perceived source of ignition and/or fire propagation is the EVPTS (also not defined in Article 625 of the NEC!) or EV – clearly within the Scope of the NEC TC. Aside from the lack of jurisdiction, the reality is that this definition is unenforceable since if you don't acknowledge that the EV will park within the charging stall, or stall area (where there is a row of stalls) then you cannot determine the extent of the EVCA if you don't know the type of EV. For example, if an electric truck or bus is capable of charging there (CCS1 plugs fit most of them), do we allow for a 40' bus? In addition to a 25' cable? The Manual of Style for NFPA TC Documents is clear (2.2.2.1) that the main text "shall not contain . . . requirements that are unenforceable and vague (See 2.3.3 and 2.3.4)". We had proposed a more reasonable, and enforceable definition of the charging area consisting of the two standard parking stalls centered on the charger, based on our extensive experience with real-world experience, but that was ignored/dismissed, without any justification or rationale. See our prior points regarding "fire experience, research data, engineering fundamentals, or other such information as may be available" and "sound technical and scientific bases". We also indicated that a lot of this material could be provided in the

informative annexes since requirements are very difficult to define. Dismissing our knowledge, expertise, experience, etc., risks compromising the "integrity of the standards development process or the interests of the NFPA" which are grounds for a Petition to the Board of Directors of the NFPA per Regs 1.7, never mind grounds for Appeals to the Standards Council per Regs 1.6. Members should not underestimate the significance of violations of the Regs, Articles of Organization, Bylaws, Guide for the Conduct of Participants in the NFPA Standards Development Process, Manual of Style for NFPA TC Documents, etc. as these are fundamental to NFPA's integrity and interests. Also, NFPA follows ANSI Essential Requirements for Due process and as such "Good faith efforts shall be made to resolve potential conflicts between and among existing ANSI standards and candidate ANS". Since the NEC is existing, we question whether due process is being followed.

Summary:

We encourage the membership to reject this definition as it lacks a scientific basis, or understanding of EV charging risks, and is the wrong code/standard to attempt the definition.

Respectfully submitted,

Kevin Cheong, P.Eng., RCDD, LEED AP

Report of the *Technical Committee on Automotive and Marine Service Stations*

Certified Amending Motion 30A-13
June 2023

The ***Report of the Technical Committee on Automotive and Marine Service Stations*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages***. The revisions were submitted to letter ballot of the responsible Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 30A*** at www.nfpa.org/30Anext.

The submitter indicated that regulating electrical equipment as a source of ignition is not within the scope of the Technical Committee. The Technical Committee scope is safeguarding against fire and explosion hazards associated storage, handling, and dispensing of flammable liquids and control of fire hazard and fire protection at automotive and marine service stations. This includes potential sources of ignition/fire hazards and requirements to protect against potential fire risks. The Technical Committee believes that EV Charging is within its scope and addressing potential risks associated with this activity relative to flammable liquids and gases is appropriate.

The changes proposed to 15.3.2 proposed by Public Comment PC-19 were rejected. This section defines the hazardous (classified) areas for the storage, handling and dispensing areas to be applied to the EV charging activity. While hazardous (classified) areas are defined in Chapter 8 of this document, the proposed hazardous (classified) areas restrict EV charging activities within the hazardous (classified) areas regardless of the height of the EV Power transfer system and connection to the EV. These hazardous (classified) areas address both the permanent hazard

associated with the dispenser and other fixed equipment and the temporary hazard (spills and releases) associated with dispensing and transfer of flammable and combustible substances. ESS are being installed as standalone equipment as part of the control equipment for the EV power transfer systems. Reference to ESS has been retained for purposes of the hazardous (classified) areas and other requirements in the proposed chapter.

While the delivery location in 15.3.2.1 is temporary and variable, that does not make it unenforceable, as EV Charging equipment can be located outside of expected fuel delivery locations to reduce the risk of ignition.

Section 15.3.2.1 was added by First Revision FR-31 which had a vote of 27 affirmative and 2 negative and revised by Second Revision SR-8 which had a vote of 28 affirmative and 2 negative.

Respectfully submitted,

R.B. Laurence
on behalf of the Technical Committee on Automotive and Marine Service Stations

Motion Substantiation

Certified Amending Motion 30A-13
June 2023

CAM 30A-13 supports the position to delete the definition of unique EVCA hazardous locations.

Regulations violation:

See substantiation for CAM 30A-5, 24, 8, 15, 22, 23, 10 and 14 (preferred order). Defining unique hazardous locations, for fire initiated by electrical equipment, is out of scope.

Lack of coordination/correlation:

As noted in substantiation for CAM 30A-24, this section uses substantially different terminology and appears dissimilar than section 8.3 (flammable vs. Class I liquids; **failing to indicate Division or Zone**; lacking exceptions; lacking heights – "in all directions") and thus doesn't align (coordinate or correlate) with NEC Article 514. Of particular concern is adding a clause including tank vehicles' transfer valves and vapor return connections – see section 9.2.2 regarding "Tank Filling and Bulk Delivery". NFPA 385 Standard for Tank Vehicles for Flammable and Combustible Liquids, as referenced by NFPA 30A 2.2 and 9.7.2 (and already mandatory), is the standard TC (TRA-AAA) that should lead such activities – **another scope / Regs violation**.

Similarly vacuum pumps should be covered in section 10.1 Vapor Processing Systems. NFPA codes and standards are supposed to be coordinated, correlated, and for that matter justified. Note that The Guide for the Conduct of Participants in NFPA Standards Development Process states (3.3(b)) TC "members should maintain a high level of knowledge and competency in the areas of interest and/or expertise that are related to their activities". This lack of knowledge of this same standard, never mind related ones, raises significant doubt this expectation is being met. See Regs 3.1.3.1 for the potential consequences "members who fail . . . to exhibit lack of . . . knowledge, or

responsibility shall not be reappointed and may be removed for the stated causes at any time". The presumed intent of such implications to achieve a high level of knowledge and competency on TCs, not simply ensure broad representation. Lack of awareness of the Regs, Manuals, Guides, reports, articles, etc. is not an acceptable excuse.

Lack of technical or scientific bases:

The suggestion that EV Charging Areas (not just the EV charger, the sphere within reach of the cable AND the EV) is somehow uniquely capable of igniting a vacuum assist blower within 10 ft (section 8.3.3 only requires 18 in above 18 in), or a tank vehicle (transfer valves or vapor return connections) is **extremely unscientific** and **unsound technically**. See Regs 3.3.6 etc. for the expectations. Applying this temporary hazard to EVs and ESS, but not ICE or hybrids, when some of the information we've provided indicated Hybrids (138x) and ICE (61x) are more likely to catch fire, as acknowledged but not refuted by the committee, is oddly unexplained.

I've referenced NFPA Research Foundation "Vehicle Fires" and quote "The leading causes of vehicle fires were mechanical failures or malfunctions and electrical failures or malfunctions. Older vehicles accounted for three-quarters of the highway vehicle fires caused by mechanical or electrical failures or malfunctions.". In "Service or Gas Station Fires" I quote "More than half of the fires (56 percent) at these properties were vehicle fires." and "Almost three-quarters (71 percent) of vehicle fires at service stations in 2014 through 2018 began in the engine, running gear, or wheel area" and "One-third (32 percent) of the vehicle fires at service stations began with the ignition of flammable or combustible liquids, gases, piping, or filters. Almost one third (31 percent) began with electrical wire or cable insulation . . .". In "Modern Vehicle Hazards in Parking Structures and Vehicle Carriers" I quote "Modern vehicles present new hazards, such as **due to the incorporation of larger quantities of combustible materials (e.g. fuels, plastics,**

synthetic materials, etc.) into their designs. As alternative fuel vehicles are popularized, concerns regarding their unique hazards, burn characteristics, and typical burn duration have been raised. Compared to older vehicles, modern vehicles burn differently.". In "Fire Safety Challenges of 'Green' Buildings and Attributes" I quote "They conclude that **the risk of electrochemical failure and the propensity and severity of fires and explosions from accidental ignition of flammable electrolyte solvents in Li-ion battery systems are anticipated to be somewhat comparable to or perhaps slightly less than for gasoline or diesel vehicles**.". While these reports are all from 2020, more recent articles in NFPA Journal are not contradictory and instead focused on stranded energy (reignition) and vapor detonation (mostly enclosed spaces) and unapproved E-bikes/scooters. Other reputable sources conclude similarly and NFPA articles have referenced them.

Unenforceable and vague:

The inconsistencies (Div/Zone 2?, beyond barrier?) and lack of clarity, per CAM 30A-8 (EVCA for a 40' bus?) render these hazardous locations unenforceable, and vague, so they don't comply with the Manual of Style for TC Docs (2.2.2.1).

Duplication and conflicting:

Per Regs 3.3.5.5, 3.1.7, and common sense, duplication of requirements, **especially when conflicting**, is to be avoided. Per above and our other CAMs referenced, this section is both duplication and conflicting. Chapter 8 is already sufficient.

Respectfully submitted,

Kevin Cheong, P.Eng., RCDD, LEED AP

Report of the *Technical Committee on Automotive and Marine Service Stations*

Certified Amending Motion 30A-15
June 2023

The ***Report of the Technical Committee on Automotive and Marine Service Stations*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages***. The revisions were submitted to letter ballot of the responsible Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 30A*** at www.nfpa.org/30Anext.

EVPTS is discussed in NEC Articles 625, and 625.1 indicates that the article covers electrical conductors and equipment connecting an electric vehicle to premises wiring for the purposes of charging, power export, or bidirectional current flow. This provides a basis for the meaning of EVPTS. The Technical Committee task group reviewed the NEC, the IFC, and the *Design, construction, modification, maintenance and decommissioning of filling stations* published by the UK's Association for Petroleum and Explosives Administration (APEA) and the Energy Institute in developing these requirements.

The committee is only making recommendations on the locations of the EVPTS and ESS at fuel service stations, which is in the purview of the technical committee. The committee is not making recommendations regarding the design of EVPTS and is informing AHJs of other applicable codes and is deferring the design of such systems to others. While there may be redundancy in referencing the NEC and the building code, there has been a request by AHJs to have a consolidated set of requirements to follow for the installation of EV Charging Stations. The

listing of *NFPA 70*® and NFPA 855 in Chapter 2 does not automatically make these full listed document mandatory.

Section 15.4 was added by First Revision FR-31 which had a vote of 27 affirmative and 2 negative and revised by Second Revision SR-8 which had a vote of 28 affirmative and 2 negative.

Respectfully submitted,

R.B. Laurence
on behalf of the Technical Committee on Automotive and Marine Service Stations

Motion Substantiation

Certified Amending Motion 30A-15
June 2023

CAM 30A-15 supports the position to delete the subdivision 15.4.x related to Installation, Operation, and Maintenance Requirements of EVPTS, and ESS (necessarily outside the hazardous areas).

Regulations violation.

See substantiation for CAM 30A-5, 24, 8, 13, 22, 23, 10 and 14 (preferred order). This committee is not the appropriate one to dictate installation, operation and maintenance of electrical equipment (EVPTS and ESS). Nor is this code, since the NEC Article 625 and NFPA 855 already exist for such equipment, along with Chapter 8.

Lack of justification:

The technical committee has provided no fire experience, research data, engineering fundamentals, or sound technical and scientific bases, and rather ignored or dismissed NFPA, NHTSA, NTSB, BTS, Recalls.Gov, and other reports and articles that refer and/or analyze such data.

Relying on hearsay, unsubstantiated rumours, claims, over-generalizations, fearmongering, or other rationale, is against NFPA, and ANSI, requirements and policy for standards development, especially for ones intended to be mandatory.

Reason the subdivision should deleted, and why this doesn't itself create a problem:

This section includes potentially conflicting content, with Section 8 & 9, NFPA 855, the NEC, etc., such as referring to EVPTS, which are not defined; and indicating they shall be "designed, listed, and installed . . . in accordance with . . . this code". This code is not a Product Safety Standard, thus impossible to design to and impossible to list to. While it's possible that most users

understand the intent, that's no excuse for vague or unenforceable code, as that is a violation of NFPA guidance on documents and committee member behavior. Note that this subdivision is intended to apply to EVPTS if the EVCA is within 100 ft of the flammable liquids, and the EVCA is intended to include the output cable and EV (buses are up to 40' long) so these requirements can apply up to 100+25+40 – 20 = 145 ft or more from the source of the flammable liquid, yet other electrical equipment can be just over 20' away without any restrictions (except perhaps arc welders and similar hot work per 9.8.2, but that highlights how drastic the difference in treatment is).

Deleting this entire subdivision does not create a problem because the referenced NFPA publications in Section 2.2 "shall be considered part of the requirements of this document" and include NFPA 70 (which already covers mechanical protection of electrical equipment, listing, following manufacturer's instruction / conditions of certification, etc.) and NFPA 855 (ESS), Chapter 8 & 9 cover Electrical Installations and Operational Requirements, and state and local codes fall under "rule of law". Restating rule of law requirements is completely redundant, especially because the enforcement won't be in accordance with this code, it'll be by its own enforcement mechanism (Electrical inspector). Any authority trying to enforce these requirements based on this code (eg. building inspector trying to enforce NEC based on this subdivision) would be violating the jurisdiction of the electrical inspector or other correct authority.

Respectfully submitted,

Kevin Cheong, P.Eng., RCDD, LEED AP

Report of the *Technical Committee on Automotive and Marine Service Stations*

Certified Amending Motion 30A-22
June 2023

The ***Report of the Technical Committee on Automotive and Marine Service Stations*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages***. The revisions were submitted to letter ballot of the responsible Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 30A*** at www.nfpa.org/30Anext.

Damage to EV power transfer systems and the EV could result in an electrical hazard or fire. This section requires design of the charging area to minimize movement through the area by vehicles other than those intending to charge. Vehicle traffic through the charging area or while a tank vehicle is transferring to a storage tank can result in accidents resulting damage to equipment and possible fire hazards. This is consistent with the requirements of section 6.3.7 for dispensing equipment.

Section 15.5.2 was added by First Revision FR-31 which had a vote of 27 affirmative and 2 negative and revised by Second Revision SR-8 which had a vote of 28 affirmative and 2 negative.

Respectfully submitted,

R.B. Laurence
on behalf of the Technical Committee on Automotive and Marine Service Stations

Motion Substantiation

Certified Amending Motion 30A-22
June 2023

CAM 30A-22 supports the position to delete the subdivision 15.5.2 related to EVCA not impeding fuel tanker movement.

Regulations violation.

See substantiation for CAM 30A-5, 24, 8, 13, 15, 23, 10 and 14. This committee is not the appropriate one to dictate EVCA requirements or fuel tanker operation. Nor is this code, since the NEC Article 625 and NFPA 385 already exist for such equipment. The portions of those activities that belong in this code for coordination belong in Chapter 8 Electrical Installations, and Chapter 9 Operational Requirements. This committee and code can work with the other committees, but cannot initiate or lead such activities.

Lack of justification:

The technical committee has provided no fire experience, research data, engineering fundamentals, or sound technical and scientific bases, and rather ignored or dismissed NFPA, NHTSA, NTSB, BTS, Recalls.Gov, and other reports and articles that refer and/or analyze such data. Given that the committee has acknowledged, but not rebutted, the information that Hybrid and ICE vehicles are more likely to catch fire (138x and 61x, in one analysis), and just as much of an obstruction, no explanation has been provided for not allowing EVCA (full extent of the cable, AND EV) to be located where ICE/Hybrid parking stalls are.

Creating requirements unique to EVs that should apply equally to ICE/Hybrid. For example, isn't a line of cars waiting for a pump just as much of an obstruction, and if idling more of a fire initiation risk? Shouldn't there be a no idling sign, and enforcement?

Relying on hearsay, unsubstantiated rumours, claims, over-generalizations, fearmongering, or other rationale, is against NFPA, and ANSI, requirements and policy for standards development, especially for ones intended to be mandatory.

No safety concern has been identified regarding the movement of the tank vehicle, as opposed to the tank filling operation. While the EV may be located at the charger longer than an ICE or Hybrid at a gas pump, no limit is place on how many ICE/Hybrids are lined up at the gas pumps, and there are currently a lot more of them. Commercial operational issues may warrant an informational annex note, but they don't warrant a mandatory requirement.

Reason the subdivision should deleted, and why this doesn't itself create a problem:

By requiring the EVCA to not impede or obstruct tank vehicle deliveries, when an EVCA includes the sphere formed by the output cable of the charger, regardless of obstructions, and in all directions including away from the charging stalls, and includes an undefined EV (40 ft bus?), the requirement becomes vague and unenforceable, in violation of the Manual of Style for NFPA TC Documents.

NFPA 385 9.2.14, and A.9.2.14 already ensure ignition sources are kept 25 ft from fuel unloading of tank vehicles. Any impeding of the tank vehicle is an operational issue that should apply to all obstructions and if NFPA 30A 9.2.2 hasn't needed revision before, the changes shouldn't be added in a Chapter only applicable when EV Charging is present.

The EVCA (unclearly large sphere around the charger AND EV) is presumably a permanent issue, whereas the EV, or ICE/Hybrids lined up at the gas pumps, are temporary. Presumably gas station designers and operators already understand best practices regarding scheduling deliveries and layout of the station to minimize interference with commercial operations. This is not a safety issue and thus no mandatory requirement is necessary.

If we're going to consider commercial interests, we should consider the International Energy Agency's World Energy Outlook 2022, IEA Global Electric Vehicle Outlook 2022, IEA EV Technology Deep Dive, and various McKinsey & Company articles, highlighting how gas stations need to change their business model as EV adoption increases, and oil consumption decreases. From a codes/standards perspective, they need to support, not impede without proper justification, progress and the transition, while ensuring appropriate safety requirements based on fire experience, research data, engineering fundamentals, sound technical and scientific bases. One can't help but wonder why in 2020 NFPA Research Foundation published reports on "Vehicle Fires", "Service or Gas Station Fires", "Modern Vehicle Hazards . . .", "Fire Safety Challenges of 'Green' Buildings and Attributes", and several related articles since, if not meant for the committees developing standards related to those topics to use them. Perhaps the intent is for users of those codes and standards to be able to formulate their own opinion based on a reputable body of knowledge, and in this case vote accordingly.

Respectfully submitted,

Kevin Cheong, P.Eng., RCDD, LEED AP

Report of the *Technical Committee on Automotive and Marine Service Stations*

Certified Amending Motion 30A-23
June 2023

The ***Report of the Technical Committee on Automotive and Marine Service Stations*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages***. The revisions were submitted to letter ballot of the responsible Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 30A*** at www.nfpa.org/30Anext.

If there is an emergency that requires the petroleum fueling systems to be shut down, the EV equipment should also be shut down if it is in close proximity to the areas handling, storing or dispensing liquid fuels. A distance of 100 feet was selected based on the engineering judgement of the Technical Committee to limit the footprint of the requirement.

The deletion of 15.7 proposed as part of Public Comment PC-29 was rejected. While the EV power transfer system has breakers and shut-off switches at control panels, an emergency stop provides an easy to locate and use single location for a person charging a vehicle to ensure that the power has been disconnected from the charging unit and all dispensing equipment.

Section 15.7 was added by First Revision FR-31 which had a vote of 27 affirmative and 2 negative and revised by Second Revision SR-8 which had a vote of 28 affirmative and 2 negative.

Respectfully submitted,

R.B. Laurence
on behalf of the Technical Committee on Automotive and Marine Service Stations

Motion Substantiation

Certified Amending Motion 30A-23
June 2023

CAM 30A-23 supports the position to delete the subdivision 15.7.x related to Emergency Electrical Disconnects.

Regulations violation.

See substantiation for CAM 30A-5, 24, 8, 13, 15, 22, 10 and 14 (preferred order). This committee is not the appropriate one to dictate EVCA and EVPTS requirements, since NEC Article 625 already exists for such equipment. The portions of those activities that belong in this code for coordination belong in Chapter 6 Fuel Dispensing Systems (6.7 Emergency Electrical Disconnects), 8 Electrical Installations (8.4 Emergency Electrical Disconnects), or for the signs Chapter 9 Operational Requirements (9.2.5.5 Signs).

Creating unique, contradictory, overlapping, requirements for a sub-category of electrical equipment violates the Manual of Style for NFPA TC Documents as referenced by the Regs.

Lack of justification:

The technical committee has provided no fire experience, research data, engineering fundamentals, or sound technical and scientific bases, and rather ignored or dismissed NFPA, NHTSA, NTSB, BTS, Recalls.Gov, and other reports and articles that refer and/or analyze such data.

Creating requirements unique to EVPTS, without fire experience, research data, engineering fundamentals, or sound technical and scientific bases, and rather having ignored or dismissed NFPA, NHTSA, NTSB, BTS, Recalls.Gov, and other reports and articles that refer and/or analyze such data is contrary to the Regs also.

Relying on hearsay, unsubstantiated rumours, claims, over-generalizations, fearmongering, or other rationale, is against NFPA, and ANSI, requirements and policy for standards development, especially for ones intended to be mandatory.

Reason the subdivision should deleted, and why this doesn't itself create a problem:

By requiring the EVCA and EVPTS to have disconnects and signs differently than 6.7, 8.4, and 9.2.5.5 when an EVCA includes the sphere formed by the output cable of the charger, regardless of obstructions, and in all directions including away from the charging stalls, and includes an undefined EV (40 ft bus? So, 165' away?), the requirement becomes a duplicate or worse a conflict, uncoordinated, vague and/or unenforceable, in violation of the Manual of Style for NFPA TC Documents.

The reason it's not a problem to delete this section is those other sentences already exist for disconnects and the appropriate place to make the modifications to the portion of requirements that are unique to service stations is those sentences. EV chargers are not so unique that they require a separate chapter (does Section 8 not apply to the portions of electrical equipment not covered by Chapter 15 – does the light pole in the EVCA require different treatment than the next pole outside the EVCA?)

I encourage the membership to vote to accept the motion to delete this unnecessary, or inappropriately placed/duplicated/contradictory text.

Respectfully submitted,

Kevin Cheong, P.Eng., RCDD, LEED AP

Report of the *Technical Committee on Automotive and Marine Service Stations*

Certified Amending Motion 30A-10
June 2023

The ***Report of the Technical Committee on Automotive and Marine Service Stations*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages***. The revisions were submitted to letter ballot of the responsible Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 30A*** at www.nfpa.org/30Anext.

The definitions are important to the understanding of the requirements for EV Charging. These definitions appear in both Chapter 3 and the proposed Chapter 15. NFPA Manual of Style requires all definitions must appear in Chapter 3, but they are also permitted to appear in the administrative section of a chapter. Definitions are extracted from NFPA 70 and NFPA 855 with the exception of the EV Charging Area (EVCA), which defines the area to be outside the hazardous (classified) areas and the Tank Vehicle, which is defined to include both a cargo mounted tank and a tractor and semi-trailer. Further, the definition of Electric Vehicle Charging Area (section 3.3.8) is essential to the identification of the EV charging area for purposes of the hazardous (classified) areas.

The *Manual of Style for Technical Committee Documents* (2004) section 3.2.4.1.1.1 allows, at the committee's discretion, lists of defined terms to be given in chapters other than in Chapter 3, as long as there are cross-references indicating the section in Chapter 3 where the definitions are listed. Extracts are checked by NFPA staff at each revision cycle and updated to

match the source document text. If the definitions change in the NEC, they will be changed in NFPA 30A.

These definitions were added by First Revision FR-31 which had a vote of 27 affirmative and 2 negative and revised by Second Revision SR-8 which had a vote of 28 affirmative and 2 negative.

Respectfully submitted,

R.B. Laurence
on behalf of the Technical Committee on Automotive and Marine Service Stations

Motion Substantiation

Certified Amending Motion 30A-10
June 2023

CAM 30A-10 supports the position to delete the redundant definitions of Chapter 15 to those of Section 3.3.

Regulations violation.

See substantiation for CAM 30A-5, 24, 8, 13, 15, 22, 23 and 14 (preferred order). This committee is not the appropriate one to create definitions such as EVCA, TC NEC-AAC is the appropriate committee, and in particular in Article 625 of the NEC. The NEC has a correlating committee that can ensure appropriate coordination with Article 514, etc. since the NEC has several Code Making Panels (CMPs) each whom cover particular articles.

Duplication:

The Regulations Governing Development of NFPA Standards (see 3.1.7, 3.3.5.5, etc.) and Manual of Style for NFPA TC Documents (see 1.6.3.5.2 and 1.7.2) state that duplication is to be avoided, and covers definitions.

Reason the subdivision should deleted, and why this doesn't itself create a problem:

While thankfully the two sets of definitions match, there's no good reason to repeat chapter 3 definitions for Chapter 15 if none of the other Chapters needed the definitions to be repeated. No problem is created because all the definitions are found in Subdivision 3.3.

I encourage the membership to vote to delete this section, because sometimes less is more and a bigger code, due to the repetition, isn't a better or more impressive code – it's the opposite.

Respectfully submitted,

Kevin Cheong, P.Eng., RCDD, LEED AP

Report of the *Technical Committee on Automotive and Marine Service Stations*

Certified Amending Motion 30A-14
June 2023

The ***Report of the Technical Committee on Automotive and Marine Service Stations*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages*.** The revisions were submitted to letter ballot of the responsible Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 30A*** at www.nfpa.org/30Anext.

Section 15.3.3 is not mandating that the EVCA be located at a high point, but that it be located such that the potential spill pathways will not travel through the EVCA. The purpose of this requirement is to reduce the chance that a spill will travel through an EVCA and generate vapors that could ignite.

Section 15.3.3 was added by First Revision FR-31 which had a vote of 27 affirmative and 2 negative and revised by Second Revision SR-8 which had a vote of 28 affirmative and 2 negative.

Respectfully submitted,

R.B. Laurence
on behalf of the Technical Committee on Automotive and Marine Service Stations

Motion Substantiation

Certified Amending Motion 30A-14
June 2023

CAM 30A-14 supports the position to delete the subdivision of 15.3.3 related to fuel spills draining through or pooling in an EVCA.

Regulations violation.

See substantiation for CAM 30A-5, 24, 8, 13, 15, 22, 23 and 10 (preferred order). This committee is not the appropriate one to (primarily) regulate EVCA, NEC-AAC is the appropriate committee, and in particular in Article 625 of the NEC. The NEC has a correlating committee that can ensure appropriate coordination with Article 514 (repeat of Chapter 8), etc. since the NEC has several Code Making Panels (CMPs) each of whom cover particular articles. While for this topic this committee, and code, may participate, the Regs dictate that the committee with primary responsibility lead, and coordinate, or a coordinating committee is formed where several committees should be involved.

Vague and unenforceable:

Since the source of the fuel spill is not clear (dispensers, fuel tanker, leaking ICE or Hybrid vehicle in a parking stall, overflowing portable container near dispenser, etc.), the only portion of this that could remain is the "pooling" portion since only the highest point on a site doesn't risk "draining through", and when an EVCA is to the full extent of output cable (frequently just under the 25 ft length that would require hose management in the NEC per 625.17(C)), AND in all directions, AND the EV (an electric bus can be 40 ft in length) the pooling requirement remains challenging, and unclear. Keep in mind this code is intended to apply when the EVCA is within 100 ft of the dispensers, tank fill, vents, etc. so this requirement could be applicable within 165 ft of a hazardous

liquid source. Why, for example does it matter if it's possible for fuel to pool on the other side of a barrier behind an EV charger and its stalls?

Judgemental:

The Manual of Style for NFPA TC Documents indicates in 2.2.3.1 that TCs should only retain judgemental items where actual requirement can't be specified, and in 1.6.1.2 that the text shall be in sufficient detail to indicate the limits of what is covered which this isn't.

Delete rather than improve:

The poor definition of EVCA, and hazardous areas unique to EV charging, and limitations of what we can do in CAMs lead us to just delete the entire requirement.

Lack of Coordination:

Table 8.3.3 for all electrical equipment already limits draining of Class I liquids as note "f", and this sentence does not appear to be coordinated with that. Do both apply? What happens when they contradict?

Reason the subdivision should deleted, and why this doesn't itself create a problem:

This subdivision should be deleted because it was an over-reach by this committee, applied to other over-reaches (definition of EVCA, and scope being within 100 ft). While it's reasonable to prevent gasoline from draining from the dispenser area to the EV charging area and have it pool there, this sentence is not sufficiently detailed to be clear and enforceable consistently.

Deleting it is not a problem because Table 8.3.3 already includes a note "f" for draining of Class I liquids that can be linked to for the appropriate locations.

Respectfully submitted,

Kevin Cheong, P.Eng., RCDD, LEED AP

Report of the *Technical Committee on Electrical Systems*

Certified Amending Motion 99-Grouped (i.e. all CAMs submitted by Dan Chisholm and grouped by Motions Committee in the range from 99-11 through 99-44)
June 2023

The ***Report of the Technical Committee on Electrical Systems*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 99, Health Care Facilities Code.*** The revisions were submitted to letter ballot of the responsible Committee(s) in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 99*** at www.nfpa.org/99next.

The grouped motion seeks to reject 31 individual second revisions and return the text to that of the current edition of NFPA 99. The revisions made in the 31 second revisions are required for correlation with changes made to the terms "power sources," "alternate power sources," "essential electrical system," "normal power," and the acronym "EPS" during the first draft phase of the revision process. These revisions align with second revisions created to address Public Comments 16, 20, and 44. These changes also address recommendations made by the Terminology Task Group in Public Input 85. The replacement of the term "alternate power source" with "on-site power source" is made for correlation with the deletion of the term "alternate power source" made in First Revision 942. The terms "emergency" and "permanent emergency" have been eliminated as they are not defined in the standard.

During the First Draft, a Public Input (PI-85) was submitted to coordinate terminology with various standards, including NFPA 99, NFPA 70, and NFPA 110. In addition, other Public Inputs, including PI-13, PI-88, and PI-310,) were submitted to address various common terms, including "EPS," "power sources," and "alternate power sources."

A task group was appointed to address these public inputs in a coordinated manner, as noted in the First Draft Meeting Minutes, Items #3 and #7(a)(i). In an effort to ensure the chapter was fully coordinated, the Task Group made recommendations based on a series of public comments and task group discussions.

In response to the task group recommendations, the technical committee removed language specific to NFPA 110 generators where the requirements need to apply to all sources of power. NFPA 99 retained extracted text for all instances specific to generator sets and the requirement to follow NFPA 110 for generator sets. The decision to require only generators or to allow other sources should reside with NFPA 99 and not NFPA 110, which does not have *"primary jurisdiction,"* as specified in the NFPA extract policy, over sources such as solar, wind and battery storage systems. The NFPA extract policy states, *"A standard may contain text extracted from another standard provided there is good and sufficient reason for the extracts."* With changes to NFPA 99 allowing additional alternate sources, there is no longer a good and sufficient reason to maintain extracts that would direct health care facilities to install a generator when there are other sources that provide the same, if not better, reliability.

Respectfully submitted,

Jason D'Antona
on behalf of the Health Care Facilities Technical Committee on Electrical Systems

Report of the *Technical Committee on Hyperbaric and Hypobaric Facilities*

Certified Amending Motion 99-47
June 2023

The ***Report of the Technical Committee on Hyperbaric and Hypobaric Facilities*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 99, Health Care Facilities Code.*** The revisions were submitted to letter ballot of the responsible Committee(s) in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 99*** at www.nfpa.org/99next.

The motion seeks to accept an identifiable part of Public Comment No. 103, which was rejected but held by the technical committee on the basis of the subject being deemed to be new material in accordance with 4.4.4.2 of the *Regulations Governing the Development of NFPA Standards*, which states, "Public Comments must be related to material that has received public review either through the submission of Public Input, Committee Input, or Correlating Input or through the first revisions. The technical committee may reject but hold any Public Comment that introduces "new material" or that has not had adequate public review…"

The submitter of Public Comment No. 103 indicated that the related first draft item was First Revision No. 997, which addressed primary and secondary pressure relief devices in hyperbaric chambers. First Revision No. 997 was unrelated to the concept of mild hyperbaric therapy, which is the concept introduced by Public Comment No. 103. The public comment defines the concept of mild hyperbaric therapy as Category 4, which is currently reserved in the hyperbaric facility chapter of NFPA 99. The "reserved" notation indicates that currently no definition or

requirements exist for Category 4 hyperbaric therapy. While the public comment would define a Category 4 hyperbaric facility, no requirements for them have been provided.

The technical committee took no position with respect to the technical content of Public Comment No. 1. It will be automatically entered as a public input during the next revision cycle. It was rejected but held strictly based on the procedures specified by the Regulations.

Respectfully submitted,

Milosh Puchovsky
on behalf of the Technical Committee on Hyperbaric and Hypobaric Facilities

Motion Substantiation

Certified Amending Motion 99-47
June 2023

CAM 99-47 is proposed in order to fill an identified gap in the safeguarding requirements that currently do not exist in a standard for soft sided mild hyperbaric chambers within NFPA Chapter 99.

There is a clear and identifiable gap now that the American Society of Mechanical Engineers (ASME) is evaluating the applicability and appropriate mandatory means to regulate low pressure soft-shelled chambers, as these models do not operate with high pressure and do not deliver 100% medical oxygen administration to chamber occupants.

Additionally, there are no specific standards that address the distinct operations of soft sided chambers. This long-standing gap in the code has created inconsistent enforcement of unreasonable standards, which prevents a large proportion of the public from accessing a potentially beneficial treatment that has been in use in the U.S. for decades.

In order to appropriately regulate the installation and operation of soft-shell chambers, in accordance with the associated risks and updates to applicable standards such as ASME PVHO, it is necessary to populate Category 4 to create a new specific section for chambers that fall under a lower hazard category.

The primary consideration is to draft and adopt language that will ensure the safe use of these devices, which are already in operation in virtually every State. This will result in consistent adoption, adherence, and enforcement of appropriate standards for soft-shell chambers, making this sector of the soft-shell hyperbaric industry safer for staff and occupants.
There are several important reasons for these proposed changes, as follows:

1. Currently in the United States there are approximately twenty thousand soft-shell chambers in operation.
2. Unfortunately, the existing language in NFPA 99-14 is broad and lacks clarity and specificity for various applications, which results in inconsistent adoption and enforcement from Fire Marshals and Fire Inspectors (AHJ's), and ultimately end users of these devices.
3. There are many standards in the existing NFPA 99-14 code that do not reasonably apply to soft-shell chambers.
4. There are considerations with the operation of soft-shell chambers that the existing NFPA 99-14 code do not contemplate.
5. The lack of clear guidance leads to more confusion and consequently creates a vacuum that is often filled with inaccurate, sensational, and misleading information.

The proposed new category (14.1.3.4 Category 4 Hyperbaric Care) addresses the above

mentioned deficiencies and granularity in the current edition of NFPA 99-14. The proposed changes also take into consideration the latest advances in soft-shell chamber engineering and design standards applied by U.S. manufacturers of these commonly used devices, which have been in service for decades.

There is ample documented evidence that these devices pose a very low risk to occupants when operated correctly in a properly controlled environment with trained technicians. Failure to update the next edition of NFPA 99-14 with the proposed language will result in continuation of the status quo and will not address the lack of guidance therefore continuing to compound the existing deficiencies in a rapidly growing, affordable direct-to-consumer hyperbaric market. Adding the proposed language will ensure that all users of these devices are equipped with the appropriate code standards to operate soft-shell chambers effectively and safely. This will result in greater uniformity, consistency and will promote stability and continued quality of services provided to the public.

Respectfully submitted,

Chris Neal

Restore Hyper Wellness

Austin, Texas

Report of the *Technical Committee on Residential Occupancies*

Certified Amending Motion 101-6
June 2023

The ***Report of the Technical Committee on Residential Occupancies*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 101, Life Safety Code***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 101*** at www.nfpa.org/101next.

Chair James Lathrop has recused himself from this debate due to client interest.

Public Comment No. 51 seeks to delete new Subsection 30.7.5, which was added to the code at the first draft stage. In its statement for First Revision No. 6666, the committee indicated that the proposed language was consistent with what the Residential Occupancies Committee approved in the previous cycle except for the requirement for lids, which was consistent with what was submitted for consideration in the International Fire Code. The language that was approved by the committee last cycle was deleted by an amendment at the 2020 tech session. This was further appealed to the Standards Council, which determined that valet trash requirements are within the scope of NFPA 101. The ballot results for FR-6666 were out of 30 eligible voters, 21 voted affirmative (one of which with comments), 3 voted negative, and 6 were not returned.

In its statement for the rejection of Public Comment No. 51, which sought to delete Subsection 30.7.5 in its entirety, the committee indicated that the submitter provided insufficient justification for the removal of valet trash requirements, which were developed by a task group consisting of a wide range of stakeholders. The committee further stated that if the requirements

are deleted from the code, valet trash services will still be permitted with no minimum requirements to mitigate potential hazards.

Respectfully submitted,

Josh Lambert
on behalf of the Technical Committee on Residential Occupancies

Report of the *Technical Committee on Residential Occupancies*

Certified Amending Motion 101-11
June 2023

The ***Report of the Technical Committee on Residential Occupancies*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 101, Life Safety Code***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 101*** at www.nfpa.org/101next.

Chair James Lathrop has recused himself from this debate due to client interest.

The committee developed First Revision No. 6666 based on the work of a task group consisting of a wide range of stakeholders. The language is consistent with what the Residential Occupancies Committee approved in the previous cycle except for the requirement for lids, which was consistent with what was submitted for consideration in the International Fire Code. The language that was approved by the committee last cycle was deleted by an amendment at the 2020 tech session. This was further appealed to the Standards Council, which determined that valet trash requirements are within the scope of NFPA 101. The ballot results for FR-6666 were out of 30 eligible voters, 21 voted affirmative (one of which with comments), 3 voted negative, and 6 were not returned.

The committee reviewed all submitted public comments and maintained its position supporting the language accepted at the first draft stage. The committee additionally noted the proposed language would create enforcement challenges.

Respectfully submitted,

Josh Lambert
on behalf of the Technical Committee on Residential Occupancies

Report of the *Technical Committee on Residential Occupancies*

Certified Amending Motion 101-7
June 2023

The ***Report of the Technical Committee on Residential Occupancies*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 101, Life Safety Code***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 101*** at www.nfpa.org/101next.

Chair James Lathrop has recused himself from this debate due to client interest.

The identifiable part of Public Comment No. 55 seeks to add a new paragraph 30.7.5.1, which would require AHJ permission to use the Subsection 30.7.5 valet trash requirements.

The committee developed First Revision No. 6666 based on the work of a task group consisting of a wide range of stakeholders. The language is consistent with what the Residential Occupancies Committee approved in the previous cycle except for the requirement for lids, which was consistent with what was submitted for consideration in the International Fire Code. The language that was approved by the committee last cycle was deleted by an amendment at the 2020 tech session. This was further appealed to the Standards Council, which determined that valet trash requirements are within the scope of NFPA 101. The ballot results for FR-6666 were out of 30 eligible voters, 21 voted affirmative (one of which with comments), 3 voted negative, and 6 were not returned.

The committee reviewed all submitted public comments and maintained its position supporting the language accepted at the first draft stage. The committee additionally noted the proposed language would create enforcement challenges.

Respectfully submitted,

Josh Lambert
on behalf of the Technical Committee on Residential Occupancies

Report of the *Technical Committee on Residential Occupancies*

Certified Amending Motion 101-8
June 2023

The ***Report of the Technical Committee on Residential Occupancies*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 101, Life Safety Code***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 101*** at www.nfpa.org/101next.

Chair James Lathrop has recused himself from this debate due to client interest.

Public Comment No. 52 seeks to delete new Subsection 31.7.5, which was added to the code at the first draft stage. In its statement for First Revision No. 6738, the committee indicated that the proposed language was consistent with what the Residential Occupancies Committee approved in the previous cycle except for the requirement for lids, which was consistent with what was submitted for consideration in the International Fire Code. The language that was approved by the committee last cycle was deleted by an amendment at the 2020 tech session. This was further appealed to the Standards Council, which determined that valet trash requirements are within the scope of NFPA 101. The ballot results for FR-6738 were out of 30 eligible voters, 22 voted affirmative (one of which with comments), 2 voted negative, and 6 were not returned.

In its statement for the rejection of Public Comment No. 52, which seeks to delete Subsection 31.7.5 in its entirety, the committee indicated that the submitter provided insufficient justification for the removal of valet trash requirements, which were developed by a task group consisting of a wide range of stakeholders. The committee further stated that if the requirements

are deleted from the code, valet trash services will still be permitted with no minimum requirements to mitigate potential hazards.

Respectfully submitted,

Josh Lambert
on behalf of the Technical Committee on Residential Occupancies

Report of the *Technical Committee on Residential Occupancies*

Certified Amending Motion 101-12
June 2023

The ***Report of the Technical Committee on Residential Occupancies*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 101, Life Safety Code***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 101*** at www.nfpa.org/101next.

Chair James Lathrop has recused himself from this debate due to client interest.

The committee developed First Revision No. 6738 based on the work of a task group consisting of a wide range of stakeholders. The language is consistent with what the Residential Occupancies Committee approved in the previous cycle except for the requirement for lids, which was consistent with what was submitted for consideration in the International Fire Code. The language that was approved by the committee last cycle was deleted by an amendment at the 2020 tech session. This was further appealed to the Standards Council, which determined that valet trash requirements are within the scope of NFPA 101. The ballot results for FR-6738 were out of 30 eligible voters, 22 voted affirmative (one of which with comments), 2 voted negative, and 6 were not returned.

The committee reviewed all submitted public comments and maintained its position supporting the language accepted at the first draft stage. The committee additionally noted the proposed language would create enforcement challenges.

Respectfully submitted,

Josh Lambert
on behalf of the Technical Committee on Residential Occupancies

Report of the *Technical Committee on Residential Occupancies*

Certified Amending Motion 101-9
June 2023

The ***Report of the Technical Committee on Residential Occupancies*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 101, Life Safety Code***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 101*** at www.nfpa.org/101next.

Chair James Lathrop has recused himself from this debate due to client interest. I am speaking to support the committee's position and against the motion.

The identifiable part of Public Comment No. 56 seeks to add a new paragraph 31.7.5.1, which would require AHJ permission to use the Subsection 31.7.5 valet trash requirements.

The committee developed First Revision No. 6738 based on the work of a task group consisting of a wide range of stakeholders. The language is consistent with what the Residential Occupancies Committee approved in the previous cycle except for the requirement for lids, which was consistent with what was submitted for consideration in the International Fire Code. The language that was approved by the committee last cycle was deleted by an amendment at the 2020 tech session. This was further appealed to the Standards Council, which determined that valet trash requirements are within the scope of NFPA 101. The ballot results for FR-6738 were out of 30 eligible voters, 22 voted affirmative (one of which with comments), 2 voted negative, and 6 were not returned.

The committee reviewed all submitted public comments and maintained its position supporting the language accepted at the first draft stage. The committee additionally noted the proposed language would create enforcement challenges.

Respectfully submitted,

Josh Lambert
on behalf of the Technical Committee on Residential Occupancies

Report of the *Technical Committee on Residential Occupancies*

Certified Amending Motion 101-10
June 2023

The ***Report of the Technical Committee on Residential Occupancies*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 101, Life Safety Code***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 101*** at www.nfpa.org/101next.

Chair James Lathrop has recused himself from this debate due to client interest.

Public Comment No. 53 seeks to add a new paragraph 31.7.5.8, which would permit valet trash services in buildings with an approved automatic fire sprinkler system.

The package of requirements in Subsection 31.7.5 was developed by a task group consisting of a wide range of stakeholders. The committee reviewed all submitted public comments and upheld its position supporting the language accepted at the first draft stage. The committee determined that these requirements would provide an adequate level of protection whether the building was sprinklered or not.

Respectfully submitted,

Josh Lambert
on behalf of the Technical Committee on Residential Occupancies

Report of the *Building Code Technical Committee on Fire Protection Features*

Certified Amending Motion 5000-1
June 2023

The report of the ***Correlating Committee on the Building Code*** is presented at found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 5000, Building Construction and Safety Code***. The revisions were submitted to letter ballot for the responsible technical committees and correlating committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition table of the document information page for ***NFPA 5000*** at www.nfpa.org/5000next.

First, as Chair of the Technical Committee on Fire Protection Features, I would like to thank Mr. Hirschler for his interest and participation in this process. The current motion on the floor relates to Public Input No. 76 which was submitted during the first draft stage and Public Comment No. 32 which was submitted during the second draft stage.

At the first draft meeting in July 2021, the Technical Committee on Fire Protection Features resolved Public Input No. 76 citing that the portion of the public input related to the subsequent Public Comment No. 32 would not result in a technical change, as the use of other approved methods would be permitted under Section 1.4 for Equivalency. The motion to resolve Public Input No. 76 passed at the first draft meeting and no related first revisions were created.

At the second draft meeting in August 2022, the Technical Committee on Fire Protection Features rejected Public Comment No. 32 citing that the removal of these provisions could be detrimental as it could reduce the flexibility of international authorities having jurisdiction to

permit the use of alternative approved methods. The motion to reject Public Comment No. 32 passed at the second draft meeting and no related second revisions were created.

Respectfully submitted,

Nathan Wittaseck
on behalf of the NFPA Building Code Technical Committee on Fire Protection Features

Motion Substantiation

Certified Amending Motion 5000-1
June 2023

The language approved by the technical committee is flawed because it states:
"8.2.1.1 The fire resistance ratings of structural elements and building assemblies shall be determined in accordance with the prescriptive requirements of 8.2.2 based on the test procedures set forth in ASTM E119, Standard Test Methods for Fire Tests of Building Construction and Materials, or UL 263, Fire Tests of Building Construction and Materials, or other approved test methods or analytical methods in accordance with 8.2.3."

The NITMAM/CAM proposes to delete the words "*or other approved test methods*".

The problem with this language is two-fold: less fire safety and less consistency.

First, it is not safe to allow "other approved tests" without clarification. It is clear that there is no guarantee that "other tests" will be equivalent in terms of fire safety to ASTM E119. I assume the committee's reference to section 1.4 is intended to reference section 1.5 on equivalency. Section 1.5.2 on approval of equivalency states that "Alternative systems, methods or devices approved as equivalent by the authority having jurisdiction shall be recognized as being in compliance with this Code." That section applies to all sections of the code and the specific addition of the language of "other approved tests" in this section has the potential to be misleading, since it is not included in many other sections. Therefore, there is a potential implication here that this section is special and that "other tests" can be used here but not in some other sections. Moreover, the specific inclusion of those words in this section puts the responsibility on the AHJ to consider "other" tests. This is neither appropriate nor safe.

Second, this language is not consistent with the equivalent language in other sections of NFPA 5000. It is important to note that several other sections in NFPA 5000 reference ASTM E119 and none of them contain those words, meaning they don't allow "other tests". Examples of sections referencing ASTM E119 (and UL 263) but not "other (undescribed) tests": 8.2.1.5, 8.2.2.4.2.1, 8.2.2.4.3.1, 8.2.3.3.2, and 48.4.1.2. In each of these sections it is very clear that the fire resistance tests are to be conducted in accordance with one of two equivalent tests: ASTM E119 or UL 263.

As an example, section 8.2.1.5 states:
"*8.2.1.5 Ceiling Plenum Tested Assembly.*
Where the plenum is a part of a floor/ceiling or roof/ceiling assembly that has been tested or investigated and assigned a fire resistance rating of 1 hour or more, and the assembly contains air ducts and openings for air ducts, all the materials and the construction of the assembly, including the air duct materials and the size and protection of the openings, shall conform with the design of the fire-resistance-rated assembly, as tested in accordance with ASTM E119, Standard Test Methods for Fire Tests of Building Construction and Materials, or UL 263, Fire Tests of Building Construction and Materials."

Similarly, section 8.2.2.4.2.1 states:

"Fire resistance glazing tested in accordance with ASTM E119, Standard Test Methods for Fire Tests of Building Construction and Materials, or UL 263, Fire Tests of Building Construction and Materials, shall be permitted in fire door assemblies and fire window assemblies where tested and installed in accordance with their listings."

Also, the annex note to 8.2.1.1 (the section in question) discusses only ASTM E119 and UL 263 as equivalent tests. It does not describe any other test as equivalent to ASTM E119. It states:

"A.8.2.1.1
UL 263, Fire Tests of Building Construction and Materials, and ASTM E119, Standard Test Methods for Fire Tests of Building Construction and Materials, are considered nationally recognized methods of determining fire resistance ratings and have been found to yield equivalent test results.
Materials used to construct fire-resistance-rated elements and assemblies, such as columns, beams, roofs, and floors, might include spray fire-resistive materials (SFRM), intumescent fire-resistive materials (IFRM), and other materials or systems can be tested in accordance with ASTM E119 or UL 263. The materials or systems are installed and inspected in accordance with a listed design, construction documents, and the manufacturer's installation instructions that describe the thickness, type, or other characteristics of materials required to meet the required fire resistance rating."

The technical committee, on rejecting my public comment, stated: "By removing this provision it would reduce the flexibility of international AHJs to permit the use of alternative approved test methods, which could be detrimental." However, in fact, the language approved by the technical committee requires that the "international AHJ" determine (perhaps by hiring consultants) whether the test proposed by an applicant is one of those "other approved test methods" and whether it is equivalent to ASTM E119 or UL 263. It is likely that many (if not most) international AHJs would prefer not to have that responsibility, which may come with an added cost. If the international AHJ wants to use section 1.5 on equivalency, they can do that, irrespective of whether the words "other approved test methods" are in the code or not. Therefore, it is best to exclude those words, for safety and consistency.

Respectfully submitted,

Marcelo Hirschler – GBH International

Report of the *Correlating Committee on Building Code*

Certified Amending Motion 5000-2
June 2023

The ***Report of the Correlating Committee on Building Code*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 5000, Building Construction and Safety Code***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 5000*** at www.nfpa.org/5000next.

To begin, I want to thank NFPA for the opportunity to chair this committee, as well as submit this statement on behalf of the Correlating Committee on Building Code. I also wish to thank Mr. Hirschler for participating in the NFPA standards development process.

Regarding the identifiable part of Public Comment No. 30, the charging language, and parentheticals (1), (2) and (3), are not being requested to be changed, and will remain as provided by SCR-15. The identifiable part of PC-30, being addressed by this CAM, solely pertains to the language for (4) of the requirement.

During the Second Draft Correlating Committee meeting, the Correlating Committee reviewed the Second Draft ballot comments, and noted the negative vote of Mr. Eckoff, as provided in CC-8173. The Correlating Committee, upon discussion and careful review, determined that the language offered by Mr. Eckoff for (4) provided more consistency and clarity.

While this CAM seeks to change several words within (4), the notable change requested centers around rewording the phrase from "…have fire resistance ratings." to "…comply with a

fire resistance rating.". The "have" language from SCR-15 closely aligns with the language originally provided by the submitter of this CAM via their submission for PI-19.

The Correlating Committee voting for SCR-15 had 15 eligible voters, 13 affirmative, with 2 not returned. There were no negative votes recorded.

I will now defer to the chair of the Building Construction technical committee, Mark Chrisman.

Respectfully submitted,

Peter J. Willse
on behalf of the Correlating Committee on Building Code

Report of the *Technical Committee on Building Construction*

Certified Amending Motion 5000-2
June 2023

The ***Report of the Technical Committee on Building Construction*** is presented as found in the First Draft Report and Second Draft Report for the ***Annual 2023 cycle*** of ***NFPA 5000, Building Construction and Safety Code***. The revisions were submitted to letter ballot of the responsible Technical Committees and Correlating Committee in accordance with the *Regulations Governing the Development of NFPA Standards.* The reports and ballot results can be found on the next edition tab of the Document Information page for ***NFPA 5000*** at www.nfpa.org/5000next.

To begin, I want to thank NFPA for the opportunity to chair this committee, as well as submit this statement on behalf of the Technical Committee on Building Construction. I also wish to thank Mr. Hirschler for participating in the NFPA standards development process.

The technical committee discussed this topic both at the First Draft and Second Draft meetings. A task group was originally created by the Correlating Committee in 2019. This task group met prior to the Public Input close for NFPA 5000 and submitted Public Inputs on this topic. The technical committee reviewed PI-19 which resulted in further task group work. PC-30 was received at the Second Draft phase and created SR-8173. The ballot of SR-8173 yielded a comment from Mr. Eckoff, which requested the language within (4) of the requirement to be changed. As Mr. Willse described, further edits were made via SCR-15 to address the ballot comments.

The committee looks forward to the next cycle of NFPA 5000 and potentially working with Mr. Hirschler to continue further discussion on this topic.

Respectfully submitted,

Mark Chrisman
on behalf of the Technical Committee on Building Construction

Motion Substantiation

Certified Amending Motion 5000-2
June 2023

Recommended Text if Motion Passes:
7.2.3.2.12 Exterior Nonbearing Walls.
Exterior nonbearing walls shall be constructed of any one of the following:
(1) Noncombustible materials
(2) Limited combustible materials
(3) Exterior wall assemblies that have been tested in accordance with and comply with the conditions of acceptance of NFPA 285
(4) Fire-retardant treated wood, when the wall is ~~such walls are~~ not required to comply with a ~~have~~ fire resistance rating ~~ratings~~.

Recommended Text if Motion Fails:
7.2.3.2.12 Exterior Nonbearing Walls.
Exterior nonbearing walls shall be constructed of any one of the following:
(1) Noncombustible materials
(2) Limited combustible materials
(3) Exterior wall assemblies that have been tested in accordance with and comply with the conditions of acceptance of NFPA 285
(4) Fire-retardant-treated wood, when such walls are not required to have fire-resistance ratings.

The technical committee agreed with the proposed language that was submitted in the public comment, namely that this section refers to a "wall that is not required to comply with a fire resistance rating". Unfortunately, the correlating committee revised the wording to state that the "wall is not required to have fire resistance ratings". The problem, which probably sounds semantic to many, is that every building element (including any wall) will **have** a fire resistance rating if it were tested to ASTM E119. The result may well be that the building element will have a fire resistance rating of zero hours, or minutes, but the building element will actually "have a fire resistance rating".

I understand that the intent of the language is clear: fire-retardant-treated wood (FRTW) is only permitted to be used if the code does not require that the wall meet any **specific** fire resistance rating. In other words, the intent is that FRTW is only permitted to be used when the wall is not required to have a fire resistance rating, even if it actually has one (as any wall does). However, the text should explain that FRTW is only permitted to be used if no fire resistance rate **testing** is required. It is only if there exists a requirement to conduct fire resistance rate testing that it can be known whether a wall is or is not required to be comply with a fire resistance rating.

The technical committee agreed with that concept in the language they accepted. The membership should also agree.

Respectfully submitted,
Marcelo M. Hirschler – GBH International