2024 International Fire Code Significant Changes

2024 Code Section	Title or Subject	Reviewer Comments	Cost Yes/No	Amend Needed Yes/No	TAG Comments/Recommendations
00 General					
No Significant Changes					
01 Scope and Administration					
104.2	Determination of Compliance	New Section and subsections Inserted Sections after are renumbered. No Suggested Amendments	No	No	
[A]104.2 Determination of compliance. The fire code official shall have the authority to determine compliance with this code, to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures: 1.Shall be in compliance with the intent and purpose of this code. 2.Shall not have the effect of waiving requirements specifically provided for in this code.					
104.2.1	Listed Compliance	New Section No Suggested Amendments	No	No	
[A] 104.2.1 Listed compliance. Where this code or a referenced standard requires equipment, materials, products or services to be listed and a listing standard is specified, the listing shall be based on the specified standard. Where a listing standard is not specified, the listing shall be based on an approved listing criteria. Listings shall be germane to the provision requiring the listing. Installation shall be in accordance with the list- ing and the manufacturer's instructions, and where required to verify compliance, the listing standard and manufacturer's instructions shall be made available to the fire code official.					
104.2.2	Technical Assistance	Moved Section with new Subsections broken out from the body of 2021 IFC 104.8.2	No	No	
104.2.2 Technical assistance. To determine compliance with this code, the fire code official is authorized to require the owner or owner's authorized agent to provide a technical opinion and report.					
104.2.2.1	Cost	New Subsection broken out from the body of 2021 IFC 104.8.2	No	No	
[A] 104.2.2.1 Cost. A technical opinion and report shall be provided without charge to the jurisdiction.					
104.2.2.2	Prepare Qualifications	New Subsection broken out from the body of 2021 IFC 104.8.2 and re worded	No	No	
[A] 104.2.2.2 Preparer qualifications. The technical opinion and report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the fire code official. The fire code official is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.					
104.2.2.3	Content	New Subsection broken out from the body of 2021 IFC 104.8.2 and re worded	No	No	
[A] 104.2.2.3 Content. The technical opinion and report shall analyze the properties of the design, operation or use of the building or premises and the facilities and appurtenances situated thereon to identify and propose necessary recommendations.					
104.2.2.4	Tests	New Subsection broken out from the body of 2021 IFC 104.8.2 and re worded	No	No	
[A] 104.2.2.4 Tests. Where there is insufficient evidence of compliance with the provisions of this code, the fire code official shall have the authority to require tests as evidence of compliance. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized test standards, the fire code official shall approve the testing proce- dures. Such tests shall be performed by a party acceptable to the fire code official.					

104.2.3	Alternative Materials, Design and Methods of Construction and equipment	Section moved from 2021 IFC 104.10 with new added exception.	No	Yes	Strike Exception with amendment
[A] 104.2.3 Alternative materials, design and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. Exception: Performance-based alternative materials, designs or methods of construction and equipment complying with the International Code Council Performance Code.					
104.2.3.1	Approval Authority	New Subsection broken out from the body of 2021 IFC 104.10 and re worded	No	No	
[A] 104.2.3.1 Approval authority. An alternative material, design or method of construction shall be approved where the fire code official finds that the proposed alternative is satisfactory and complies with Sections 104.2.3.2 through 104.2.3.7, as applicable.					
104.2.3.2	Application and Disposition	New Subsection broken out from the body of 2021 IFC 104.10 and re worded	No	No	
[A] 104.2.3.2 Application and disposition. Where required, a request to use an alternative material, design or method of construction shall be submitted in writing to the fire code official for approval. Where the alternative material, design or method of construction is not approved, the fire code official shall respond in writing, stating the reasons the alternative was not approved.					
104.2.3.3	Compliance with Code Intent	New Subsection broken out from the body of 2021 IFC 104.10 and re worded	No	No	
04.2.3.3 Compliance with code intent. An alternative material, design or method of construction shall comply with the intent of the provisions of this code.					
104.2.3.4	Equivalency Criteria	New Subsection broken out from the body of 2021 IFC 104.10 and re worded	No	No	
[A]104.2.3.4 Equivalency criteria. An alternative material, design or method of construction shall, for the purpose intended, be not less than the equivalent of that prescribed in this code with respect to all of the following, as applicable: 1.Quality. 2.Strength. 3.Effectiveness. 4.Durability. 5.Safety, other than fire safety. 6.Fire safety.					
104.2.3.5	Tests	New Subsection broken out from the body of 2021 IFC 104.10 and re worded	No	No	
[A] 104.2.3.5 Tests. Tests conducted to demonstrate equivalency in support of an alternative material, design or method of construction application shall be of a scale that is sufficient to predict performance of the end use configuration. Tests shall be performed by a party acceptable to the fire code official.					
104.2.3.5.1	Fire tests	New Subsection broken out from the body of 2021 IFC 104.10 and re worded	No	No	
[A] 104.2.3.5.1 Fire tests. Tests conducted to demonstrate equivalent fire safety in support of an alternative material, design or method of construction application shall be of a scale that is sufficient to predict fire safety performance of the end use configuration. Tests shall be performed by a party acceptable to the fire code official.					
104.2.3.6	Reports	New Subsection broken out from the body of 2021 IFC 104.10 and re worded	No	No	
[A] **104.2.3.6 Reports**. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall comply with Sections 104.2.3.6.1 and 104.2.3.6.2.					
104.2.3.6.1	Evaluation Reports	New Subsection broken out from the body of 2021 IFC 104.10 and re worded	No	No	

[A]104.2.3.6.1 Evaluation reports. Evaluation reports shall be issued by an approved agency and use of the evaluation report shall require approval by the fire code official for the installation. The alternate material, design or method of construction and product evaluated shall be within the scope of the fire code official's recognition of the approved agency. Criteria used for the evaluation shall be identified within the report and, where required, provided to the fire code official.					
104.2.3.6.2	Other Reports	New Subsection broken out from the body of 2021 IFC 104.10 and re worded	No	No	
[A] 104.2.3.6.2 Other reports. Reports not complying with Section 104.2.3.6.1 shall describe criteria, including but not limited to any referenced testing or analysis, used to determine compliance with code intent and justify code equivalence. The report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the fire code official. The fire code official is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.					
104.2.3.7	Peer Review	New Subsection broken out from the body of 2021 IFC 104.10 and re worded	No	No	
[A] 104.2.3.7 Peer review. The fire code official is authorized to require submittal of a peer review report in conjunction with a request to use an alternative material, design or method of construction, prepared by a peer reviewer that is approved by the fire code official.					
104.2.4	Modifications	Moved From 2021 IFC 104.9 reworded to reflect new arrangement	No	No	
104.2.4 Modifications. Where there are practical difficulties involved in carrying out the provisions of this code, the fire code offi- cial shall have the authority to grant modifications in accordance with Section 104.2.4.1 or 104.2.4.2.					
104.2.4.1	Individual Cases	Moved From 2021 IFC 104.9 reworded to reflect new arrangement	No	No	
104.2.4.1 Individual cases. The fire code official shall have the authority to grant modifications for individual cases, provided that the fire code official shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, life and fire safety requirements. The details of action granting modifications shall be recorded and entered in the files of the code compliance agency.					
104.2.4.2	Natural Disasters	New section needs review. Allows Fire Code Official to make special policies regarding code. Example is Special provisions during Covid.	Yes	Yes	Additional Review For potential Proposal Are there existing WA laws to reference?
104.2.4.2 Natural disasters. In preparation for, during and after a natural disaster event, as determined by the fire code offi- cial, the fire code official shall have the authority to issue written policies, procedures or rules that modify this code as necessary to protect life and property. Such policies, procedures or rules shall be made available to the public and shall include start and end dates, which can be extended at the fire code official's discretion.					
105.26	Indoor Plant Cultivation	New Section	Yes	No	
105.5.26 Indoor plant cultivation. An operational permit is required for plant cultivation where a carbon dioxide (CO2) enriched environment is created.					
105.5.29	Lithium Batteries	New Section in model code picks up WA state amendment from 2021 IFC 105.5.14	No	No	See Existing Amendment Report.
105.5.29 Lithium batteries. An operational permit is required for an accumulation of more than 15 cubic feet (0.42 m) of lithium- ion and lithium metal batteries, where required by Section 320.2.					
105.5.55	Temporary Heating or cooking in tents or membrane structures	New Section	Yes	No	
105.5.55 Temporary heating or cooking in tents or membrane structures. An operational permit is required to operate tempo- rary heating or cooking equipment within tents or membrane structures.					
105.5.56	Temporary heating or cooking in wildfire risk areas	New Section. Would like to hear TAG Opinion on need for amendment.	Yes	Yes	suggest replace "local regulations" with "fire code official"

105.5.56 Temporary heating or cooking in wildfire risk areas. Where required by local regulations, an operational permit is required to operate temporary heating or cooking equipment in wildfire risk areas					
105.5.57	Temporary Heating for Construction Sites	New Section	Yes	No	
105.5.57 Temporary heating for construction sites. An operational permit is required to operate temporary heating equipment in structures during the course of construction, alteration or demolition.					
105.6.2	Automatic Sprinkler Systems	New Section. Expands on language in 105.6.1	No	No	
[A] 105.6.2 Automatic sprinkler systems. A construction permit is required for installation of or modification to an automatic sprinkler system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.					
107.1	General	Nes Section 107.	Yes	No	
[A] 107.1 General. The fire code official is authorized to issue a permit for temporary structures, uses, equipment or systems as required in Sections 105.5 and 105.6. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The fire code official is authorized to grant extensions for demonstrated cause.					
107.2	Conformance	Nes Section 107.	Yes	No	
[A] 107.2 Conformance. Temporary uses, equipment and systems shall conform to the requirements of this code as necessary to ensure health, safety and general welfare					
107.3	Temporary Service Utilities	Nes Section 107.	Yes	No	
[A] 107.3 Temporary service utilities. The fire code official is authorized to give permission to temporarily supply service utilities in accordance with Section 110.					
107.4	Termination of approval	Nes Section 107.	Yes	No	
[A] 107.4 Termination of approval. The fire code official is authorized to terminate such permit for temporary uses, equipment or systems and to order the same to be discontinued.					
02 Definitions					
No Sigificant Changes					
03 General Requirements					
304.1.1	Valet trash	No amendment needed. See ICC F8-21	No	No	
304.1.1 **Valet trash**. Valet trash collection shall be permitted only where approved. The owner and valet trash collection service provider shall comply with the rules and limitations established by the jurisdiction.					
304.3.2	Low heat release materials.	No amendment needed. See ICC F9-21	No	No	
304.3.2 **Low heat release materials.** Where required by this section, low heat release materials shall exhibit a peak rate of heat release not exceeding 300 kW/m2 where tested in accordance with ASTM E1354 at an incident heat flux of 50 kW/m2 in the horizon- tal orientation.					
304.3.6	Waste and linen containers in Group I-1, I-2 and I-3 occupancies and ambulatory care facilities	No amendment needed. See ICC F9-21	No	No	
304.3.6 **Waste and linen containers in Group I-1, I-2 and I-3 occupancies and ambulatory care facilities** . Waste and linen containers located in Group I-1, I-2 and I-3 occupancies and ambulatory care facilities shall be constructed of noncombustible materials or low heat release materials in accordance with Section 304.3.2. Metal waste containers with a capacity of 20 gallons (75.7 L) or more shall be listed in accordance with UL 1315 and shall be provided with a noncombustible lid. Portable waste and linen containers exceeding 32 gallons (121 L) shall be stored in an area classified as a waste and linen collection room and constructed in accordance with Table 509.1 of the International Building Code. Exception: Recycling clean waste containers complying with Section 304.3.6.2 are not required to be stored in waste and linen collection rooms.					
304.3.6.1	Capacity density.	No amendment needed. See ICC F9-21	No	No	
304.3.6.1 **Capacity density.** The average capacity density of containers located in an individual room or space, other than waste and linen collection rooms, shall not be greater than 0.5 gal/ft (20.4 L/m).					

304.3.6.2	Recycling clean waste containers	No amendment needed. See ICC F9-21	No	No	
304.3.6.2 **Recycling clean waste containers**. Recycling clean waste containers, including their lids, shall not exceed an individual capacity of 96 gallons (363 L).					
304.3.7	Waste containers with a capacity of 20 gallons or more in Group R-2 college and university dormitories	No amendment needed. See ICC F9-21	No	No	
304.3.7 **Waste containers with a capacity of 20 gallons or more in Group R-2 college and university dormitories**. Waste containers, including their lids, located in Group R-2 college and university dormitories, and with a capacity of 20 gallons (75.7 L) or more, shall be constructed of noncombustible materials or low heat release materials in accordance with Section 304.3.2. Metal waste containers with a capacity of 20 gallons (75.7 L) or more shall be listed in accordance with UL 1315 and shall be provided with a noncombustible lid. Portable waste containers exceeding 32 gallons (121 L) shall be stored in an area classified as a waste collection room constructed in accordance with Table 509.1 of the International Building Code.					
04 Emergency Planning and Preparedness					
403.16.6	Lithium-ion and Lithium metal batteries	See ICC Proposal F28-21	No	No	Repeal Existing WA Amendment
403.10.6 Buildings with lithium-ion or lithium metal battery storage. An approved fire safety plan in accordance with Section 404 shall be prepared and maintained for buildings with lithium-ion or lithium metal battery storage. **403.10.6 Lithium-ion and lithium metal batteries.** An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for occupancies that involve activities for the research and development, testing, manufac- turing, handling or storage of lithium-ion batteries or lithium metal batteries, or the repair or servicing of vehicles powered by lithium-ion batteries or lithium metal batteries.					
403.10.6.1	Mitigation Planning	See ICC Proposal F28-21	No	No	No amendments needed
403.10.6.1 Mitigation planning. The approved fire safety and evacuation plan shall include thermal runaway event mitigation measures. These measures shall include activities undertaken to prevent thermal runaway, early detection of a thermal runaway event and mitigation measures to be undertaken to limit the size and impact of the event on occupants and the facility.					
407.1	General	See ICC Proposal F29-21: This provision had been misinterpreted as only to apply during the initial permitting. As that is clearly not the intent of the provision, but to apply the hazardous communication provisions continuously to the operations surrounding hazardous materials and ensuring the safety of workers and first responders.	No	No	No amendment Needed
407.1 General. Where operating or closing a hazardous materials storage, use or handling facility subject to permits under Section 5001.5, or where required by the fire code official, the provisions of Sections 407.2 through 407.7 shall be applicable.					
05 Fire Service Features					
503.1 through 503.4.1	multiple	Recommend to review and keep not adopted no	No	yes	

501.1 Scope. Fire service features for buildings, structures and premises shall comply with this chapter.

501.2 Permits. A permit shall be required as set forth in Sections 105.5 and 105.6.

501.3 Construction documents. *Construction documents* for proposed fire apparatus access, location of *fire lanes*, security gates across fire apparatus access roads and *construction documents* and hydraulic calculations for fire hydrant systems shall be submitted to the fire department for review and approval prior to construction.

501.3.1 Site safety plan. The *owner* or *owner's* authorized agent shall be responsible for the development, implementation and maintenance of an *approved* written *site safety plan* in accordance with Section 3303.

Recommend keeping new model code C/N WAC-A/Y

501.4 Timing of installation. Where fire apparatus access roads or a water supply for fire protection are required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except where *approved* alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection where construction of new roadways allows passage by vehicles in accordance with Section 505.2.

510	EMERGENCY RESPONDER COMMUNICATIONS ENHANCEMENT SYSTEMS (ERCES)	Recommend to match title from model code into WAC.	yes	yes	

510.1 Emergency responder communications enhancement systems in new buildings. *Approved* in-building emergency responder communications enhancement system (ERCES) for emergency responders shall be provided in all new buildings. In-building ERCES within the building shall be based on the existing coverage levels of the public safety communications systems utilized by the jurisdiction, measured at the exterior of the building. The ERCES, where required, shall be of a type determined by the fire code official and the *frequency license holder(s)*. This section shall not require improvement of the existing public safety communications systems.

Exceptions:

1. Where *approved* by the building official and the *fire code official*, a wired communications system in accordance with Section 907.2.13.2 shall be permitted to be installed or maintained instead of an *approved* communications coverage system.
2. Where it is determined by the *fire code official* that the communications coverage system is not needed.
3. In facilities where emergency responder communications coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the *fire code official* shall have the authority to accept an automatically activated emergency responder communications coverage system.

510.1	Exception #4	Review for inclusion in WA Code	No	No	Review for inclusion in WA Code Proposal Needed to remove

4. One-story buildings not exceeding 12,000 square feet (1115 m^2) with no below-ground area(s).

510.3.2	Operational permit.	Recommend to review	yes	no	

510.3 **Permits.** Permits for in-building emergency responder communications enhancement systems shall be in accordance with **Sections 510.3.1 and 510.3.2.** Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

510.4.2.5.1	Single supervisory input.	Recommend to review	no	no	Review Potential Proposals

510.4.2.5.1 **Single supervisory input.** Where *approved*, a single supervisory input to the *fire alarm system* to monitor all system supervisory signals shall be permitted.

510.4.2.8	Near-far effect.	Recommend to review	No	No	Review Potential Proposals

510.4.2.8 Near-far effect. Where a signal booster is required by the RF system designer, the dynamic range of the in-building emergency responder communications enhancement system shall be designed to minimize the effects of strong signal automatic gain control on weak signal uplink performance.

510.4.2.9	Noise interference.	Recommend to review	No	No	Review Potential Proposals

510.4.2.9 Noise interference. Where a signal booster is used, signal booster type(s) and the *uplink* signal and noise levels shall be coordinated with and *approved* by all *frequency license holder(s)* that may be adversely impacted by any transmitted noise resulting from the in-building emergency responder communications enhancement system. Systems shall be in compliance with all *frequency licensing authority* requirements.

510.5.2.1	Active RF-emitting devices.	Recommend to review	No	No	Review Potential Proposals

510.5.2.1 Active RF-emitting devices. Active RF-emitting devices shall meet the following requirements in addition to any other requirements determined by the *fire code official* or the *frequency license holder(s)*:

1. Active RF-emitting devices that have a transmitted power output sufficient to require certification of the *frequency licensing authority* shall have the certification of the radio *frequency licensing authority* prior to installation.
2. All active RF-emitting devices shall be simultaneously compatible for their intended use, as required by the *frequency licensing authority*, the *frequency license holder(s)* and the *fire code official*, at the time of installation.
3. Written authorization shall be obtained from the *frequency license holder(s)* prior to the initial activation of any RF-emitting devices required to be certified by the *frequency licensing authority*.

06 Building Services and Systems

No Significant Changes

07 Fire and Smoke Protection Features

701.6.1	Recordkeeping	Adds reference to recordkeeping, IFC Section 110.3. The code change proposal will not increase or decrease the cost of construction. (ICC CAH F58-21: As Submitted)	N	N	

701.6.1 Recordkeeping. Records of all required system inspections, testing, repairs and maintenance shall be maintained in accordance with Section 110.3.

705.2.7	Periodic inspection and testing of rolling steel fire doors.	References NFPA 80 for rolling fire door inspection. The code change proposal will not increase or decrease the cost of construction (iCC CAH F59-21: As Modified)	N	N	

705.2.7 Periodic inspection and testing of rolling steel fire doors. Rolling steel *fire doors* shall be inspected and tested annu- ally by a trained rolling steel *fire door* systems technician in accordance with the applicable provisions of NFPA 80. Records of inspections and testing shall be maintained.

08 Interior Finish, Decorative, Materials and Furnishing

803.11.1	Foam plastics.	Clarification. The code change proposal will not increase or decrease the cost of construction. The proposal does not add any requirements but deletes a permitted approach for approval of foam plastic materials. There is the potential that materials that materials that had been approved based on non standard tests would have to be retested. (ICC CAH F60-21 Part I: As Submitted)	N	N	
803.11.1 Foam plastics. Foam plastics shall be allowed to be used as interior wall and ceiling finish only where in accordance with Section 2603.9 of the *International Building Code* . This section shall apply both to exposed foam plastics and to foam plastics used in conjunction with a textile or vinyl facing or cover.					
808 (808.1 - 808.4)	Waste/linen containers in I-1, I-2, I-3 and ambulatory care facilities.	Clarification and incorporation of waste containers in addition to linen containers. The code change proposal will not increase or decrease the cost of construction: change is part of a reorganization of information with no impact on cost. (ICC CAH F9-21: As Submitted)	N	N	
808.1 Waste and linen containers in Group I-1, I-2 and I-3 occupancies and ambulatory care facilities. Waste and linen containers located in Group I-1, I-2 and I-3 occupancies and ambulatory care facilities shall comply with Section 304.3.6.					
808.2 Signs. Foam plastic signs that are not affixed to interior building surfaces shall have a maximum heat release rate of 150 kW when tested in accordance with UL 1975, or when tested in accordance with NFPA 289 using the 20-kW ignition source.					
Exception: Where the aggregate area of foam plastic signs is less than 10 percent of the floor area or wall area of the room or space in which the signs are located, whichever is less, subject to the approval of the *fire code official* .					
808.3 Combustible lockers. Where lockers constructed of combustible materials are used, the lockers shall be considered to be interior finish and shall comply with Section 803.					
808.3 Combustible lockers. Where lockers constructed of combustible materials are used, the lockers shall be considered to be interior finish and shall comply with Section 803. **Exception:** Lockers constructed entirely of wood and noncombustible materials shall be permitted to be used wherever interior finish materials are required to meet a Class C classification in accordance with Section 803.1.2.					
808.1 Play structures added to existing buildings. Where play structures that exceed 10 feet (3048 mm) in height or 150 square feet (14 m^2) in area are added inside an existing building, they shall comply with Section 424 of the *International Building Code* .					
09 Fire Protection and Life Safety Systems					
901.5	Administration of installation acceptance testing	Editorial change.	N	N	
901.5 Administration of installation acceptance testing. Fire protection and *life safety* systems and appurtenances thereto shall be subject to acceptance tests as contained in the installation standards and as *approved* by the *fire code official*. The *fire code official* shall be notified before any required acceptance testing.					
Table 901.6.1	FIRE PROTECTION SYSTEM INSPECTION, TESTING AND MAINTENANCE STANDARDS	Table title update (editorial). Does not increase/decrease cost.	N	N	

TABLE 901.6.1—FIRE PROTECTION SYSTEM INSPECTION, TESTING AND MAINTENANCE STANDARDS	
SYSTEM	**STANDARD**
Portable fire extinguishers	NFPA 10
Carbon dioxide fire-extinguishing systems	NFPA 12
Halon 1301 fire-extinguishing systems	NFPA 12A
Dry-chemical extinguishing systems	NFPA 17
Wet-chemical extinguishing systems	NFPA 17A
Water-based fire protection systems	NFPA 25
Fire alarm systems	NFPA 72
Fire dampers	NFPA 80
Smoke dampers	NFPA 105
Smoke and heat vents	NFPA 204
Water-mist systems	NFPA 750
Clean-agent extinguishing systems	NFPA 2001
Aerosol fire-extinguishing systems	NFPA 2010

Table 901.6.1	FIRE PROTECTION SYSTEM INSPECTION, TESTING AND MAINTENANCE STANDARDS	This change does not increase cost since it is an editorial change which simply refers to existing damper requirements as outlined in the 2021 International Fire Code, section 706, where NFPA 80 and NFPA 105 are already mentioned. This proposal does not make technical changes. (ICC CAH F61-21: Approved As Submitted)	N	N	

901.6.1 Standards. *Fire protection systems* shall be inspected, tested and maintained in accordance with the referenced standards *listed* in Table 901.6.1.

901.6.3	Records	Editorial ICC Change Reference F58-21		N	

901.6.3 Records. Records of all system inspections, tests and maintenance shall be maintained in accordance with Section 110.3.

903.2 Exception	Where required	This change correlates old language with the new requirements for energy storage systems. There is no impact on construction costs. It could save constructions costs by eliminating the confusion of having a project move forward without suppression that is required, then the increased costs to correct the error. (ICC CAH F62-21: Approved As Modified)	N	N	

903.2 Where required. *Approved automatic sprinkler systems* in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

Exceptions:

1. Spaces or areas in telecommunications buildings used exclusively for telecommunications equip- ment, associated electrical power distribution equipment, batteries not required to have an *automatic sprinkler system* by Section 1207 for energy storage systems and standby engines, provided that those spaces or areas are equipped throughout with an *automatic smoke detection system* in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour *fire barriers* constructed in accordance with Section 707 of the *International Building Code* or not less than 2-hour *horizontal assemblies* constructed in accordance with Section 711 of the *International Building Code*, or both.

903.2.2; 903.2.7.3	Group B	Overarching IBC/IFC coordinated change, affects 903.2.2 - 903.2.9.1): The code change proposal will increase the cost of construction. On a straight forward analysis this series of changes increases the cost construction. However, the majority of facilities involved in these activities do have suppression and any new construction of this nature includes suppression. Balanced against the cost of a fire that can not be extinguished routinely the installation of the suppression is ultimately a savings. (F66-21: Approved As Submitted)	Y	N	

903.2.2.2 Laboratories involving research and development or testing. An *automatic sprinkler system* shall be installed throughout the fire areas utilized for the research and development or testing of lithium-ion or lithium metal batteries.

903.2.7.3 Lithium-ion or lithium metal battery storage. An *automatic sprinkler system* shall be provided in a room or space within a Group M occupancy where required for the storage of lithium-ion or lithium metal batteries by Section 320 or Chapter 32.

903.2.2.2	Laboratories involving research and development or testing.	New section in 2024 for Lithium batteries. (Part of F66-21: Approved As Submitted)	Y	N	

903.2.2.2 Laboratories involving research and development or testing. An *automatic sprinkler system* shall be installed throughout the fire areas utilized for the research and development or testing of lithium-ion or lithium metal batteries.

903.2.4	Group F-1	New in model code (Part of F66-21: Approved As Submitted)	Y	N	

903.2.4 Group F-1. An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 *fire area* exceeds 12,000 square feet (1115 m^2).
2. A Group F-1 *fire area* is located more than three stories above *grade plane*.
3. The combined area of all Group F-1 *fire areas* on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m^2).
4. A Group F-1 occupancy is used to manufacture lithium-ion or lithium metal batteries.
5. A Group F-1 occupancy is used to manufacture vehicles, energy storage systems or equipment containing lithium-ion or lithium metal batteries where the batteries are installed as part of the manufacturing process.

TABLE 903.2.5.2; 903.3.1; 903.4; 903.5	"Automatic sprinkler" references in multiple sections	The code change proposal will not increase or decrease the cost of construction. There are not technical changes in this proposal. It is for term correlation. (ICC CAH F75-21 Part I)	N	N	

TABLE 903.2.5.2—GROUP H-5 AUTOMATIC SPRINKLER SYSTEM DESIGN CRITERIA

LOCATION	OCCUPANCY HAZARD CLASSIFICATION
Fabrication areas	Ordinary Hazard Group 2
Service corridors	Ordinary Hazard Group 2
Storage rooms without dispensing	Ordinary Hazard Group 2
Storage rooms with dispensing	Extra Hazard Group 2
Corridors	Ordinary Hazard Group 2

903.3.1 Standards. Automatic sprinkler systems shall be designed and installed in accordance with Section 903.3.1.1, unless otherwise permitted by Sections 903.3.1.2 and 903.3.1.3 and other chapters of this code, as applicable.

903.4 Sprinkler system supervision and alarms. *Automatic sprinkler system* supervision and alarms shall comply with Sections 903.4.1 through 903.4.3.

903.5 Inspection, testing and maintenance. *Automatic sprinkler systems* shall be inspected, tested and maintained in accordance with Section 901.

903.2.7.3	Lithium-ion or lithium metal battery storage.	New in model code. (Part of F66-21: Approved As Submitted)	Y	N	

903.2.7.3 Lithium-ion or lithium metal battery storage. An *automatic sprinkler system* shall be provided in a room or space within a Group M occupancy where required for the storage of lithium-ion or lithium metal batteries by Section 320 or Chapter 32.

903.2.8.3	Care Facilities	Editorial used to be under 903.2.8.2 ICC reference F67-21 Removes R-4 Cond 2 from language	n	n	

903.2.8.3 Care facilities. An *automatic sprinkler system* installed in accordance with Section 903.3.1.3 shall be permitted in care facilities with five or fewer individuals in a single-family *dwelling*.

903.2.9	Group S-1	New model code requirement added See above line regarding cost. (Part of F66-21: Approved As Submitted)	Y	N	

903.2.9 Group S-1. An *automatic sprinkler system* shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 *fire area* exceeds 12,000 square feet (1115 m^2).
2. A Group S-1 *fire area* is located more than three stories above *grade plane*.
3. The combined area of all Group S-1 *fire areas* on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m^2).
4. A Group S-1 *fire area* used for the storage of commercial motor vehicles where the *fire area* exceeds 5,000 square feet (464 m^2).
5. A Group S-1 *fire area* used for the storage of lithium-ion or lithium metal powered vehicles where the *fire area* exceeds 500 square feet (46.4 m^2).

903.2.9.1	Repair Garages	New model code requirement added See above line regarding cost. (Part of F66-21: Approved As Submitted)	Y	N	

903.2.9.1 Repair garages. An *automatic sprinkler system* shall be provided throughout all buildings used as repair garages in accordance with Section 406.8 of the *International Building Code*, as shown:

1. Buildings having two or more stories above *grade plane*, including *basements*, with a *fire area* containing a repair garage exceeding 10,000 square feet (929 m^2).
2. Buildings not more than one story above *grade plane*, with a *fire area* containing a repair garage exceeding 12,000 square feet (1115 m^2).
3. Buildings with repair garages servicing vehicles parked in *basements*.
4. A Group S-1 *fire area* used for the repair of commercial motor vehicles where the *fire area* exceeds 5,000 square feet (464 m^2).
5. A Group S-1 *fire area* used for the storage of lithium-ion or lithium metal powered vehicles where the *fire area* exceeds 500 square feet (46.4 m^2).

Table 903.2.11.6	Additional Required Fire Protection Systems	Change addresses previous state amendment. Delete existing amendment since it is now picked up in model code.	N	Y	Repeal Existing Amendment for this section

903.2.11.6 Other required fire protection systems. In addition to the requirements of Section 903.2, the provisions indicated in Table 903.2.11.6 require the installation of a fire protection system for certain buildings and areas.

903.3.1.1.1	Exempt Locations	In next line Down	N	N	

903.3.1.1.1 Exempt locations. Automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an *approved* automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from a room merely because it is damp, of *fire-resistance-rated* construction or contains electrical equipment.

1. A room or space where sprinklers constitute a serious life or fire hazard because of the nature of the contents, where *approved* by the *fire code official*.
2. Generator and transformer rooms separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a *fire-resistance rating* of not less than 2 hours.
3. Rooms or areas that are of noncombustible construction with wholly noncombustible contents.
4. Fire service access elevator machine rooms and machinery spaces.
5. Machine rooms, machinery spaces, control rooms and control spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the *International Building Code*.

903.3.1.1.3 (new)	Li-ion or lithium metal batteries	The code change will not increase or decrease the cost of construction Compliance with this should be occurring already based upon the IFC/IBC use of NFPA 13 as the standard. In that case there would be no increase in cost. For those designers, installers and property owners that were not aware of this issue there could be an increased cost for the necessary compliance. Including in IBC/IFC provides earlier guidance to those entities referenced above in ICC documents. (ICC CAH F71-21: Approved As Modified)	N	N	

903.3.1.1.3 Lithium-Ion or lithium metal batteries. Where *automatic sprinkler systems* are required by this code for areas containing lithium-ion or lithium metal batteries, the design of the system shall be based on a series of fire tests. Such tests shall be conducted or witnessed and reported by an approved testing laboratory involving test scenarios that address the range of variables associated with the intended arrangement of the hazards to be protected.

904.12 (new)	Hybrid fire extinguishing systems	Adds reference to NFPA 770. NFPA 770 is a new NFPA standard on Hybrid (Water and Inert Gas) Fire Extinguishing Systems. Per ICC, this code change should not increase cost. It adds a new standard to the list of Alternative Automatic Fire-Extinguishing Systems that could potentially be used for fire protection. (ICC CAH F76-21: Approved As Modified)	N	N	

904.12 Hybrid fire-extinguishing systems. Hybrid fire-extinguishing systems shall be designed, installed, maintained, periodically inspected and tested in accordance with NFPA 770. Records of inspection and testing shall be maintained.

904.14.1	Manual system operation	Model code change adds exception to address where manual actuation device between 10-20 feet from cooking area is not feasible, fire code official may accept alternate. Per ICC, This change does not change the required equipment that needs to be provided, so component and installation costs are expected to be essentially the same. There may be a cost benefit associated with a more lenient approach prescribing the location of the manual actuation device. (ICC CAH F77-21: Approved As Modified)	N	N	

904.14.1 Manual system operation. A manual actuation device shall be located at or near a *means of egress* from the cooking area not less than 10 feet (3048 mm) and not more than 20 feet (6096 mm) from the kitchen exhaust system. The manual actuation device shall be installed not more than 48 inches (1200 mm) nor less than 42 inches (1067 mm) above the floor and shall clearly identify the hazard protected. The manual actuation shall require a maximum force of 40 pounds (178 N) and a maximum movement of 14 inches (356 mm) to actuate the fire suppression system.

Exceptions:

1. *Automatic sprinkler systems* shall not be required to be equipped with manual actuation means.
2. Where locating the manual actuation device between 10 feet (3048 mm) and 20 feet (6096 mm) from the cooking area is not feasible, the *fire code official* is permitted to accept a location at or near a *means of egress* from the cooking area, where the manual actuation device is unobstructed and in view from the *means of egress*.

907.2.1	Group A	Code change brings into the IFC a few exceptions for fire alarm systems and emergency voice alarm communication systems. These exceptions are buried in a standard that is not referenced from Chapter 9 of the IBC or the IFC. As a result, designers and codeofficials may not be aware that the exception already exists. Per ICC, code change will decrease the cost of construction. (ICC CAH F86-21: Approved As Submitted)	N	N	

907.2.1 Group A. A manual *fire alarm system* that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies where the *occupant load* due to the assembly occupancy is 300 or more, or where the Group A *occupant load* is more than 100 persons above or below the lowest *level of exit discharge*. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the *International Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a *fire alarm system* as required for the Group E occupancy.

Exceptions:

1. Manual fire alarm boxes are not required where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.
2. Manual fire alarm boxes and the associated occupant notification system or emergency voice/alarm communication system are not required for Group A-5 outdoor bleacher-type seating having an occupant load of greater than or equal to 300 and less than 15,000 occupants, provided that all of the following are met:
   - 2.1. A public address system with standby power is provided.
   - 2.2. Enclosed spaces attached to or within 5 feet (1524 mm) of the outdoor bleacher type seating compose, in the aggregate, a maximum of 10 percent of the overall area of the outdoor bleacher-type seating or 1,000 square feet (92.9 m²), whichever is less.
   - 2.3. Enclosed accessory spaces under or attached to the outdoor bleacher-type seating shall be separated from the bleacher-type seating in accordance with Section 1030.1.1.1.
   - 2.4. All means of egress from the bleacher-type seating are open to the outside.
3. Manual fire alarm boxes and the associated occupant notification system or emergency voice/alarm communication system are not required for temporary Group A-5 outdoor bleacher-type seating, provided that all of the following are met:
   - 3.1. There are no enclosed spaces under or attached to the outdoor bleacher-type seating.
   - 3.2. The bleacher-type seating is erected for a period of less than 180 days.
   - 3.3. Evacuation of the bleacher-type seating is included in an *approved* fire safety plan.

907.2.2.2	Laboratories involving research and development or testing.	Per ICC, The code change will increase the cost of construction. On a straight forward analysis this series of changes increases the cost construction. However, the majority of the medium to large size facilitiesinvolved in these activities do have detection and any new construction of this nature includes detection. Balanced against the cost of a fire that cannot be extinguished routinely the installation of the early detection is ultimately a savings. (ICC CAH F88-21: Approved As Submitted)	Y	N	

907.2.2.2 Laboratories involving research and development or testing. A *fire alarm system* activated by an air-sampling-type smoke detection system or a radiant-energy-sensing detection system shall be installed throughout the entire *fire area* utilized for the research and development or testing of lithium-ion or lithium metal batteries.

907.2.4.1	Manufacturing involving lithium-ion or lithium metal batteries.	New in 2024: See above for note on cost impact (ICC CAH F88-21: Approved As Submitted)	Y	N	

907.2.4.1 Manufacturing involving lithium-ion or lithium metal batteries. A *fire alarm system* activated by an air-sampling-type smoke detection system or a radiant-energy-sensing detection system shall be installed throughout the entire *fire area* where lithium-ion or lithium metal batteries are manufactured; and where the manufacturer of vehicles, energy storage systems or equipment containing lithium-ion or lithium metal batteries where the batteries are installed as part of the manufacturing process.

907.2.7	Group M	907.2.7.2 is a coordinating pointer where an M Group occupancy would require detection. based upon proposed Section 321. No cost impact. (ICC CAH F88-21: Approved As Submitted)	N	N	

907.2.7 Group M. Fire alarm systems shall be required in Group M occupancies in accordance with Sections 907.2.7.1 and 907.2.7.2.

907.2.7.2	Storage of lithium-ion or lithium metal batteries.	New in 2024 See above for note on cost impact (ICC CAH F88-21: Approved As Submitted)	Y	N	

907.2.7.2 Storage of lithium-ion or lithium metal batteries. A *fire alarm system* activated by an air-sampling-type smoke detection system or a radiant-energy-sensing detection system shall be installed in a room or space within a Group M occupancy where required for the storage of lithium-ion or lithium metal batteries in accordance with Section 320.

907.2.10.2	Storage of lithium-ion or lithium metal batteries.	New in 2024 See above for note on cost impact (ICC CAH F88-21: Approved As Submitted)	Y	N	

907.2.10.2 Storage of lithium-ion or lithium metal batteries. A *fire alarm system* activated by an air-sampling-type smoke detection system or a radiant-energy-sensing detection system shall be installed throughout the entire *fire area* where required for the storage of lithium-ion batteries or lithium metal batteries in accordance with Section 320.

907.2.11.3		Keep Model Code Change	N	N	

907.2.11.3 Installation near cooking appliances. Smoke alarms shall be installed not less than 10 feet (3048 mm) horizontally from a permanently installed cooking appliance.

Exception: Smoke alarms shall be permitted to be installed not less than 6 feet (1829 mm) horizontally from a permanently installed cooking appliance where necessary to comply with Section 907.2.11.1 or 907.2.11.2.

907.2.12		Keep Model Code Change	N	N	

907.2.12 Special amusement areas. Fire detection and alarm systems shall be provided in *special amusement areas* in accordance with Section 914.7.

907.10.1	Smoke alarm replacement	New in 2024 Per ICC, the code change will not increase or decrease the cost of construction This change is a simple correlation between IFC and IPMC and re-formatting. (ICC CAH F93-21: Approved As Modified)	N	N	

907.10.1 Smoke alarm replacement. Smoke alarms shall be replaced when any of the following apply:

1. The smoke alarm fails to respond to operability tests.
2. The smoke alarm exceeds 10 years from the date of manufacture marked on the unit, unless an earlier replacement is specified in the manufacturer's instructions.
3. The smoke alarm end-of-life signal is sounded.
4. The smoke alarm date of manufacture cannot be determined.

Where the replacement of smoke alarms is required by this section, smoke alarms shall not be required to include the 520-Hz signal unless the smoke alarms to be replaced include that signal.

912.5 (912.5.1 - 912.5.4)	Signs	Currently both the IBC section 905.2 and IFC section 905.2 require the signage for fire department connection to meet the requirements found in NFPA 14 Standard for the Installation of Standpipes and Hose Systems. This code change pulls those requirements into the IFC for quick identification. Cost Impact: Per ICC, The code change will not increase or decrease the cost of construction. This is already a requirement and is an editorial clarification. (ICC CAH F99-21: Approved As Submitted)	N	N	

912.5 Signs. A metal sign with raised letters not less than 1 inch (25 mm) in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes or fire pump connections. Such signs shall read: "AUTOMATIC SPRINKLERS," "STANDPIPES," "TEST CONNECTION," "STANDPIPE AND AUTOSPKR" or "AUTOSPKR AND STANDPIPE," or a combination thereof as applicable.

912.5.1 Lettering. Each fire department connection (FDC) shall be designated by a sign with letters not less than 1 inch (25.4 mm) in height. For manual standpipe systems, the sign shall also indicate that the system is manual and that it is either wet or dry.

912.5.2 Serving multiple buildings. Where a fire department connection (FDC) services multiple buildings, structures or locations, a sign shall be provided indicating the building, structures or locations served. Where the FDC does not serve the entire building, a sign shall be provided indicating the portions of the building served.

912.5.3 Multiple or combined systems. Where combination or multiple system types are supplied by the fire department connection, the sign or combination of signs shall indicate both designated services.

912.5.4 Indication of pressure. The sign also shall indicate the pressure required at the outlets to deliver the standpipe system demand.

Exception: Where the pressure required is 150 pounds per square inch (1034 kPa) or less.

914.3.1.1	Number of Sprinkler risers and system design	Keep Model Code Change	N	N	

914.3.1.1 Number of sprinkler risers and system design. The number of sprinkler risers and design shall comply with Section 914.3.1.1.1 or 914.3.1.1.2 based on building height.

914.3.1.1.1 Buildings 420 feet or less in height. In buildings 420 feet (128 m) or less in height, sprinkler systems shall be supplied by a single standpipe or *sprinkler express riser* within each *vertical water supply zone*.

914.3.1.1.2 Buildings over 420 feet in height. In buildings more than 420 feet (128 m) in height, not fewer than two standpipes or *sprinkler express risers* shall supply *automatic sprinkler systems* within each *vertical water supply zone*. Each standpipe or *sprinkler express riser* shall supply *automatic sprinkler systems* on alternating floors within the *vertical water supply zone* such that two adjacent floors are not supplied from the same riser.

914.3.1.1.3 Riser location. Standpipe or *sprinkler express risers* shall be placed in *interior exit stairways* and *ramps* that are remotely located in accordance with Section 1007.

914.7	Special amusement areas.	New in the 2024	N	N	

914.7 Special amusement areas. Special amusement areas shall comply with Sections 914.7.1 and 914.7.2.

Exceptions:

1. Special amusement areas that are without walls or a roof and constructed to prevent the accumulation of smoke are not required to comply with this section.
2. Puzzle rooms provided with a means of egress that is unlocked, readily identifiable and always available are not required to comply with this section.

914.7.2	Detection and alarm systems.	Code change adds clarity/criteria to detection/alarm requirements for special amusement areas. Changes are primarily correlation with other sections. Code change will not increase cost of construction.	N	N	

914.7.2 Detection and alarm systems. Buildings containing *special amusement areas* shall be equipped throughout with an *automatic smoke detection system* and an emergency voice/alarm communications system in accordance with Section 907. Presignal alarms and alarm activation shall comply with Sections 914.7.2.1 and 914.7.2.2, and emergency voice/alarm communications systems shall comply with Section 914.7.2.3.

915.1	General	New exception in 2024	N	N	

915.1 General. Carbon monoxide (CO) detection shall be installed in new buildings in accordance with Section

915.1.1	Where required	New language in 2024 affects existing state amendment. Recommend adopting model code changes and adding R-2 at Item 5 to match existing state amendment.	N	Y	Modify Existing Amendment Section 915 needs additional review.
915.1.2 through 915.1.6		All of these sections were deleted in 2024	N	N	
915.2.4	CO-producing forced-air furnace.	New in 2024	Y	N	

915.2.4 CO-producing forced-air furnace. Carbon monoxide detection complying with Item 2 of Section 915.1.1 shall be installed in all enclosed rooms and spaces served by a fuel-burning, forced-air furnace.

Exceptions:

1. Where a carbon monoxide detector is provided in the first room or space served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an *approved* location.
2. *Dwelling units* that comply with Section 915.2.1.

915.2.5	Private garages.	New in 2024	Y	N	

915.2.5 Private garages. Carbon monoxide detection complying with Item 3 of Section 915.1.1 shall be installed within enclosed occupiable rooms or spaces that are contiguous to the attached private garage.

Exceptions:

1. In buildings without communicating openings between the private garage and the building.
2. In rooms or spaces located more than one story above or below a private garage.
3. Where the private garage connects to the building through an *open*-ended corridor.
4. An open parking garage complying with Section 406.5 of the *International Building Code* or an enclosed parking garage complying with Section 406.6 of the *International Building Code* shall not be considered a private garage.
5. *Dwelling units* that comply with Section 915.2.1.

915.2.6	All other occupancies.	New in 2024	Y	N	

915.2.6 All other occupancies. For locations other than those specified in Sections 915.2.1 through 915.2.5, carbon monoxide detectors shall be installed on the ceiling of enclosed rooms or spaces containing CO-producing devices or served by a *CO source* forced-air furnace.

Exception: Where environmental conditions prohibit the installation of carbon monoxide detector in an enclosed room or space, carbon monoxide detectors shall be installed in an *approved* enclosed location contiguous with the room or space that contains a *CO source*.

915.3.1	Alarm limitations.	New in 2024	N	N	

915.3.1 Alarm limitations. Carbon monoxide alarms shall only be installed in *dwelling units* and in sleeping units. They shall not be installed in locations where the code requires carbon monoxide detectors to be used.

915.3.2	Fire alarm system required.	New in 2024	Y	N	

915.3.2 Fire alarm system required. New buildings that are required by Section 907.2 to have a *fire alarm system* and by Section 915.2 to have carbon monoxide detectors shall be connected to the *fire alarm system* in accordance with NFPA 72.

915.3.3	Fire alarm systems not required.	New in 2024	N	N	

915.3.3 Fire alarm systems not required. In new buildings that are not required by Section 907.2 to have a *fire alarm system*, carbon monoxide detection shall be provided by one of the following:

1. Carbon monoxide detectors connected to an *approved* carbon monoxide detection system in accordance with NFPA 72.
2. Carbon monoxide detectors connected to an *approved* combination system in accordance with NFPA 72.
3. Carbon monoxide detectors connected to an *approved fire alarm system* in accordance with NFPA 72.
4. Where *approved* by the *fire code official*, carbon monoxide alarms maintained in accordance with the manufacturer's instructions.

915.3.4	Installation.	New in 2024	N	N	

915.3.4 Installation. Carbon monoxide detection shall be installed in accordance with NFPA 72 and the manufacturer's instructions.

915.4.4	Interconnection.	New in 2024	N	N	

915.4.4 Interconnection. Where more than one carbon monoxide alarm is required to be installed, carbon monoxide alarms shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms. Physical interconnection of carbon monoxide alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

915.5.4	Occupant notification	New in 2024	Y	N	

915.5.4 Occupant notification. Activation of a carbon monoxide detector shall annunciate at the control unit and shall initiate audible and visible alarm notification throughout the building.

Exception: Occupant notification is permitted to be limited to the area where the carbon monoxide alarm signal originated and other signaling zones in accordance with the fire safety plan, provided that the alarm signal from an activated carbon monoxide detector is automatically transmitted to an *approved* on-site location or off-premises location.

915.5.5	Duct Detection	Restricts the use of a technology not covered by referenced standards such as UL 2075/UL 2034. Per ICC, code change will not increase/decrease the cost of construction. (ICC CAH F104-21)	N	N	

915.5.5 Duct detection. Carbon monoxide detectors placed in environmental air ducts or plenums shall not be used as a substitute for the required protection in Section 915.

917.2	Group E occupancies.	New in 2024 (ICC CAH F105-21)	Y	N	

917.2 Group E occupancies Prior to construction of a new building containing a Group E occupancy requiring a *fire alarm system* and having an occupant load of 500 or more, a mass notification risk analysis shall be conducted in accordance with NFPA 72. Where the risk analysis determines a need for mass notification, an *approved* mass notification system shall be provided in accordance with the findings of the risk analysis.

10 Means of Egress

No Significant Changes

11 Construction Requirements for Existing Buildings

1103.2	Fire safety requirements for existing buildings.		No	Yes	

1103.2 Emergency responder communications enhancement in existing buildings. Existing buildings other than Group R-3 that do not have *approved* in-building emergency response communications enhancement for emergency responders in the building based on existing coverage levels of the public safety communication systems, shall be equipped with such coverage according to one of the following:

1. Where an existing wired communication system cannot be repaired or is being replaced, or where not *approved* in accordance with Section 510.1, Exception 1.
2. Within a time frame established by the adopting authority.

Exception: Where it is determined by the *fire code official* that the in-building emergency responder communications enhancement system is not needed.

1103.9	Carbon Monoxide Alarms		No	No	

1103.9 Carbon monoxide detection. Carbon monoxide detection shall be installed in existing buildings where any of the conditions identified in Section 915.1.1 exist. Carbon monoxide alarms shall be installed in the locations specified in Section 915.2 and the installation shall be in accordance with Section 915.4.

Exceptions:

1. Carbon monoxide alarms are permitted to be solely battery operated where the code that was in effect at the time of construction did not require carbon monoxide detectors to be provided.
2. Carbon monoxide alarms are permitted to be solely battery operated in *dwelling units* that are not served from a commercial power source.
3. A carbon monoxide detection system in accordance with Section 915.5 shall be an acceptable alternative to carbon monoxide alarms.

1104.1	Means of egress for existing buildings		No	No	

1104.1 General. *Means of egress* in existing buildings shall comply with the minimum egress requirements where specified in Table 1103.1 as further enumerated in Sections 1104.2 through 1104.25, and the building code that applied at the time of construction. Where the provisions of this chapter conflict with the building code that applied at the time of construction, the most restrictive provision shall apply. Existing buildings that were not required to comply with a building code at the time of construction shall comply with the minimum egress requirements where specified in Table 1103.1 as further enumerated in Sections 1104.2 through 1104.25.

1107	Energy Storage	New section	yes	No	Significant cost to existing businesses

SECTION 1107—ENERGY STORAGE SYSTEMS

1107.1 Lithium-ion technology energy storage systems. The owner of an energy storage system (ESS) utilizing lithium-ion battery technology having capacities exceeding the values in Table 1207.1.3 and installed prior to the jurisdiction's adoption of the 2018 or later edition of the *International Fire Code* shall provide the *fire code official* a failure modes and effects analysis (FMEA) or other *approved* hazard mitigation analysis in accordance with Section 104.2.2 for review and approval.

Exception: Detached one- and two-family *dwellings* and *townhouses*.

1107.1.1 Early detection. In addition to the requirements of Sections 1207.1.8.1 and 1207.1.8.2, the analysis shall include an assessment of the ability of the installed protection systems to provide for early detection and notification of a thermal runaway event in relation to the ability of emergency responders to safely mitigate the size and impact of a thermal runaway event.

1107.1.2 Corrective action plan. Where hazards are identified by the analysis, a plan that includes a timetable for corrective action shall be submitted to the *fire code official* for review and approval. The plan shall include actions and system improvements necessary for eliminating or mitigating any identified hazards, including listed methods for early detection and notification of a thermal runaway event.

TAG Member:		**12 Energy Systems**			
1207	Electrical Energy Storage Systems	We need to re-evaluate this section since there are significant changes to section 1207 from the 2021 code to the 2024 IFC.	Yes	Yes	Proposal needed to reorganize amendments in this section to align with 2024 code.

13 Reserved

14 Reserved

15 Reserved

16 Reserved					
17 Reserved					
18 Reserved					
19 Reserved					
20 Aviation Facilities					
NO SIGNIFICANT CHANGES					
21 Dry Cleaning					
NO SIGNIFICANT CHANGES					
22 Combustible Dust-Producing Operations					
NO SIGNIFICANT CHANGES					
23 Motor Fuel-Dispensing Facilities and Repair Garages					
NO SIGNIFICANT CHANGES					
24 Flammable Finishes					
NO SIGNIFICANT CHANGES					
25 Fruit and Crop Ripening					
RESERVED					
26 Fumigation and Insecticidal Fogging					
NO SIGNIFICANT CHANGES					
27 Semiconductor Fabrication Facilities					
NO SIGNIFICANT CHANGES					
28 Lumber Yards and Agro-Industrial, Solid Biomass and WoodworkingFacilities					
NO SIGNIFICANT CHANGES					
29 Manufacture of Organic Coatings					
NO SIGNIFICANT CHANGES					
30 Industrial Ovens					
NO SIGNIFICANT CHANGES					
31 Tents, Temporary Special Event Structures and Other Membrane Structures					
3106	Inflatable Amusement Devises	Nees further review	Yes	Yes	

SECTION 3106—INFLATABLE AMUSEMENT DEVICES

3106.1 Scope. Inflatable amusement devices shall comply with this section.

Exception: Inflatable amusement devices operated on private property where use is not open to the public.

3106.2 General. Inflatable amusement devices shall be designed, anchored, operated and maintained in accordance with the manufacturer's instructions and the requirements of ASTM F2374.

3106.3 Combustible materials. The materials used in the construction of the inflatable amusement device shall meet the flame propagation criteria of Test Method 2 of NFPA 701. Additionally, a label and affidavit containing the information required in Sections 3104.3 and 3104.4 of this code shall be permanently affixed to the device.

3106.4 Electrical equipment and wiring. Electrical equipment, blower motors and temporary wiring for electrical power or lighting shall comply with Section 603.

3106.5 Portable generators. Portable generators shall comply with the applicable provisions of NFPA 70 and with the portable generator requirements of this code.

3106.6 Portable fire extinguishers. Each generator shall be provided with an *approved* portable fire extinguisher complying with Section 906 that is placed in an *approved* location.

32 High-Piled Combustible Storage					
NO SIGNIFICANT CHANGES					
33 Fire Safety During Construction and Demolition					
NO SIGNIFICANT CHANGES					
34 Tire Rebuilding and Tire Storage					
NO SIGNIFICANT CHANGES					
35 Welding and Other Hot Work					
NO SIGNIFICANT CHANGES					
36 Marinas					
NO SIGNIFICANT CHANGES					
37 Combustible Fibers					
NO SIGNIFICANT CHANGES					
38 Higher Education Laboratories					
NO SIGNIFICANT CHANGES					
39 Processing and Extracting Facilities					
3901.1	Scope	Determine if "exception" is acceptable for Greenhouses	No	Yes	Proposal Needed and additional Review Needed

3901.1 Scope. Facilities where plant processing and solvent-based extraction are conducted, including but not limited to cultivation and related activities, pre-extraction or post-extraction, shall comply with this chapter and the *International Building Code*. The use, storage, transfilling and handling of hazardous materials in these facilities shall comply with this chapter, other applicable provisions of this code and the *International Building Code*.

Exception: Greenhouses in compliance with Section 3112 of the *International Building Code* not utilizing carbon dioxide enrichment.

3901.2	Existing buildings or facilities		No	No	
3901.2 Existing buildings or facilities. Existing buildings or facilities used for the processing or extraction of plant oils using solvents shall comply with this chapter. Existing extraction processes where the medium of extraction is changed to include the use of solvents shall comply with this chapter.					
3901.4	Lighting		No	No	
3901.4 Lighting. Where used, horticultural lights or lighting systems shall be *listed* and *labeled* in accordance with UL 8800 and installed in accordance with the listing, the manufacturer's installation instructions and NFPA 70.					
3901.5	Carbon dioxide generation		No	No	
3901.5 Carbon dioxide generation. Carbon dioxide-enriched atmospheres generated using methods to create carbon dioxide as a byproduct shall meet the requirements of Sections 5307.4.1 through 5307.4.7.					
3903.7	Means of egress	Cost associated with changing doors and door frar	Yes	No	
3903.7 Means of egress. *Exit* and *exit access* doors from rooms or areas used for extraction shall swing in the direction of egress travel.					
3905.3	Ventilation	Determine if "exception" should be modified to include: approved by the fire code official per. 104.2.3	Yes	Yes	Proposal Needed and additional Review Needed
3905.3 Ventilation. Continuous mechanical exhaust ventilation shall be provided in accordance with Sections 3905.3.1 through 3905.3.4 and Chapter 4 of the *International Mechanical Code*. **3905.3.1 Extraction processes using flammable or combustible liquids or gases.** Continuous mechanical exhaust ventilation shall be provided where extraction processes use flammable or *combustible liquids* or gases. The mechanical exhaust ventilation shall provide a minimum airflow rate of not less than 5 cfm/ft² [0.0254 m³/(s × m²)] of floor area to prevent an accumulation of flammable vapors from exceeding 25 percent of the lower explosive limit (LEL). **Exception:** Where the *registered design professional* demonstrates that an engineered mechanical exhaust ventilation system design will prevent the maximum concentration of contaminants from exceeding 25 percent of the LEL, the minimum required rate of exhaust shall be reduced in accordance with such engineered system design. Where approved by the *fire code official* per 104.2.3					
3905.3.2	Extraction processes using compressed asphyxiant or inert gases.		Yes	No	
3905.3.2 Extraction processes using compressed asphyxiant or inert gases. Continuous mechanical exhaust ventilation shall be provided where extraction processes use compressed asphyxiant or inert gases. Mechanical exhaust ventilation shall be provided in accordance with Section 5307.2.					
3905.3.3	Post-extraction processes using flammable or combustible liquids or gases.		Yes	No	
3905.3.3 Post-extraction processes using flammable or combustible liquids or gases. Where flammable liquids, *combustible liquids* heated above their flashpoint, or flammable gases are used in post-extraction processing the room or area shall be provided with continuous mechanical exhaust in accordance with Section 5004.3.					
3905.3.4	Interlocks		Yes	No	
3905.3.4 Interlocks. Interlocks shall be provided where electrical equipment and appliances are used in processes that generate flammable vapors or gases. Such equipment and appliances shall be interlocked with ventilation fans so that the equipment and appliances cannot be operated unless the exhaust ventilation fans are in operation.					
40 Storage of Distilled Spirits and Wines					
4004.4	Bulk Beverage Storage Areas	recommend striking of Bulk or defining the term	No	Yes	Proposal Needed

4004.4 Bulk beverage storage areas. There shall be no storage of combustible materials in the bulk beverage storage areas not related to the beverage storage activities.					
4005.1	Palletized storage of distilled spirits in wooden barrels.	New section	No	No	
4005.1 Palletized storage of distilled spirits in wooden barrels. The palletized storage of distilled spirits in wooden barrels shall be protected by an *approved automatic sprinkler system* installed throughout the building in accordance with Section 903.3.1.1 as modified in this section. The palletized storage of metal containers of distilled spirits shall be protected by an *approved automatic sprinkler system* that complies with Chapter 57.					
4005.1.1	Storage height.	New section	No	No	
4005.1.1 Storage height. Palletized storage arrays of barrels stored on end shall be limited to a maximum of seven pallets high.					
4005.1.2	Flue spaces.	New section	No	No	
4005.1.2 Flue spaces. Flue spaces with a minimum width of 6 inches (152 mm) shall be maintained between adjacent pallets.					
4005.1.3	Loading aisles.	New section	No	No	
4005.1.3 Loading aisles. Palletized storage that is provided with a defined loading aisle between pallet storage areas shall be arranged using one of the following: 1. Draft curtains, installed in accordance with Section 4005.1.3.1, shall be provided along the side of palletized storage facing the loading aisle to separate the quick-response sprinklers and standard-response sprinklers. 2. A trench drain shall be provided on each side of the loading aisle, arranged to capture any spilled distilled spirits in the aisle space and remove them from the building to prevent spills from spreading into the barrel storage area. 3. Barrels shall be banded on each pallet to prevent barrels from falling off pallets during transportation and loading into the storage racks.					
4005.1.3.1	Draft curtains.	New section	No	No	
4005.1.3.1 Draft curtains. Where installed in accordance with Section 4005.1.3, Item 1, draft curtains shall be designed and constructed in accordance with Sections 4005.1.3.1.1 through 4005.1.3.1.3.					
4005.1.3.1.1	Construction.	New section	No	No	
4005.1.3.1.1 Construction. Draft curtains shall be constructed of sheet metal, lath and plaster, gypsum board or other *approved* noncombustible materials that provide equivalent performance to resist the passage of smoke. Joints and connections shall be designed to resist the passage of smoke.					
4005.1.3.1.2	Location.	New section	No	No	
4005.1.3.1.2 Location. Draft curtains shall be located along loading aisles serving storage areas.					
4005.1.3.1.3	Depth.	New section	No	No	
4005.1.3.1.3 Depth. Draft curtains shall extend vertically downward from the ceiling for a minimum distance of 20 percent of the ceiling height measured from the floor, with a minimum depth of 6 feet (1829 mm).					
4005.1.4	Automatic sprinkler system design.	New section	No	No	1
4005.1.4 Automatic sprinkler system design. Storage heights and automatic sprinkler densities for palletized on-end barrels shall be in accordance with Table 4005.1.4 and Sections 4005.1.4.1 through 4005.1.4.6.					

TABLE 4005.1.4	PALLETIZED STORAGE OF DISTLLED SPIRITS WITH UP TO 75 PERCENT ALCOHOL BY VOLUME IN WOODEN BARRELS	New table	No	No	

TABLE 4005.1.4—PALLETIZED STORAGE OF DISTILLED SPIRITS WITH UP TO 75 PERCENT ALCOHOL BY VOLUME IN WOODEN BARRELS

PROTECTION AREA	SPRINKLER SYSTEM TYPE	MAXIMUM CEILING HEIGHT (feet)	MAXIMUM STORAGE HEIGHT	CEILING SPRINKLER PROTECTION		
				Response/Nominal Temperature Rating/Orientation	K-Factor (gpm/psi$^{1/2}$)	Design[a], # of Sprinklers @ Pressure (psi)
Barrel storage	Wet-pipe	30	24 feet or 7 barrels	QR/165°F/Pendent	14.0	12 @ 18
	Dry-pipe			SR/286°F/Upright	16.8	24 @ 13
	Wet-pipe	30	1 barrel	Any/165°F/Any	11.2	30 @ 7
	Dry-pipe			SR/286°F/Upright	11.2	50 @ 7
	Wet-pipe	30	2 barrels	SR/286°F/Any	11.2	50 @ 29
Loading aisle w/ draft curtain	Wet-pipe or Dry-pipe	30	NA	SR/286°F/Any	5.6	100 @ 13
					> 8.0	100 @ 7
Loading aisle w/ trench drains or banded barrels or no permanent loading aisle	Provide the barrel storage design across the entire roof area (i.e., storage area and loading aisle).					

TABLE 4005.1.4—PALLETIZED STORAGE OF DISTILLED SPIRITS WITH UP TO 75 PERCENT ALCOHOL BYVOLUME IN WOODEN BARRELS—continued

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m2, 1 pound per square inch (psi) = 6.895 kPa, K-factor of 1 gpm/psi$^{1/2}$ = 14.395 L/min/bar$^{1/2}$, °C = (°F – 32)/1.8.
QR = Quick Response; SR = Standard Response; NA = Not Applicable.
a. Sprinklers shall have a maximum coverage area of 100 square feet.

4005.1.4.1	Protected product.	New section	No	No	

4005.1.4.1 Protected product. The storage and automatic sprinkler requirements in Table 4005.1.4 apply to alcohol-water mixtures greater than 20 percent and up to 75 percent alcohol by volume in wooden barrel sizes not exceeding 130 gallons (492 L).

4005.1.4.2	Hose stream allowance.	New section	No	No	

4005.1.4.2 Hose stream allowance. The automatic sprinkler design shall include a 500 gallons per minute (1900 L/min) hose stream allowance.

4005.1.4.3	Water supply duration.	New section	No	No	

4005.1.4.3 Water supply duration. The *automatic sprinkler system* water supply duration, including hose stream demand, shall be a minimum of 1 hour.

4005.1.4.4	Automatic sprinkler system balancing.	New section	No	No	

4005.1.4.4 Automatic sprinkler system balancing. Where a permanent loading aisle is provided with a separate *automatic sprinkler system* on the ceiling, the barrel storage automatic sprinkler design and the loading aisle automatic sprinkler design are not required to be balanced at the point of connection.

4005.1.4.5	Dry pipe sprinkler systems.	New section	No	No	

4005.1.4.5 Dry pipe sprinkler systems. Where dry-pipe sprinkler systems are installed, the sprinkler system shall be designed to deliver water to the most remote four sprinklers within 40 seconds.

4005.1.4.6	Small distilled spirits facilities.	New section	No	No	

4005.1.4.6 Small distilled spirits facilities. Fire protection for palletized storage of distilled spirits in small distilled spirits facilities not greater than 7,500 square feet (697 m2) is permitted to be in accordance with Sections 4005.1.4.6.1 through 4005.1.4.6.3.

4005.1.4.6.1	Ceiling clearance.	New section	No	No	

4005.1.4.6.1 Ceiling clearance. The clearance from the top of storage to the deflector of the automatic sprinklers at the ceiling shall be a minimum of 18 inches (457 mm) and a maximum of 10 feet (3048 mm).

4005.1.4.6.2	Automatic sprinkler coverage area.	New section	No	No	

4005.1.4.6.2 Automatic sprinkler coverage area. The automatic sprinkler coverage area shall not exceed 80 square feet (7.4 m^2) per sprinkler.

4005.1.4.6.3	Fire protection scheme.	New section	No	No	

4005.1.4.6.3 Fire protection scheme. The storage arrangement and *automatic sprinkler system* design shall be in accordance with Table 4005.1.4.6.3.

TABLE 4005.1.4.6.3	PALLETIZED STORAGE OF DISTLLED SPIRITS IN WOODEN BARRELS IN SMALL DISTILLED SPIRITS FACILITIES	New table	No	No	

TABLE 4005.1.4.6.3—PALLETIZED STORAGE OF DISTILLED SPIRITS IN WOODEN BARRELS IN SMALL DISTILLED SPIRITS FACILITIES

PROTECTION AREA	SPRINKLER SYSTEM TYPE	MAXIMUM CEILING HEIGHT (feet)	MAXIMUM STORAGE HEIGHT (feet)	CEILING SPRINKLER PROTECTION			
				Response/Temperature Rating/Orientation	K-Factor (gpm/psi$^{1/2}$)	Sprinkler Density (gpm/ft^2)	Area (square feet)
Barrel storage	Wet-pipe	24	12	SR/286°F/Any	≥ 11.2	0.35	4,000
				SR/165°F/Any	≥ 11.2	0.35	7,500

For SI: 1 foot = 304.8 mm, 1 pound per square inch (psi) = 6.895 kPa, K-factor of 1 gpm/psi$^{1/2}$ = 14.395 L/min/bar$^{1/2}$, °C = (°F – 32)/1.8, 1 gallon per minute per square foot = 40.75 L/min/m2.
SR = Standard Response.

4005.2	Rack storage in wooden barrels.	New section	No	No	

4005.2 Rack storage in wooden barrels. The rack storage of distilled spirits and wine greater than 20 percent alcohol shall be protected by an *approved automatic sprinkler system* installed throughout in accordance with Section 903.3.1.1 and Sections 4005.2.1 through 4005.2.3.6.

4005.2.1	Flue spaces for on-side wooden barrels.	New section	No	No	

4005.2.1 Flue spaces for on-side wooden barrels. Rack storage for on-side wooden barrels shall be provided with a minimum width of 8 inches (203 mm) between adjacent rows of barrels.

4005.2.1.1	Elevated walkways.	New section	No	No	

4005.2.1.1 Elevated walkways. Where provided, elevated walkways between barrels shall be constructed in accordance with one of the following: 1. Noncombustible materials that are 50 percent open. 2. Noncombustible materials that are open less than 50 percent, provided that the walkway has a maximum width of 1 foot (305 mm) and a minimum gap of 3 inches (76 mm) is provided between the walkway and the barrel storage. 3. Combustible materials that are provided with a row of automatic sprinklers directly beneath each walkway.					
4005.2.2	Flue spaces for on-end wooden barrels.	New section	No	No	
4005.2.2 Flue spaces for on-end wooden barrels. Rack storage arrangements with on-end wooden barrels shall be provided with transverse and longitudinal flue spaces with a minimum width of 6 inches (152 mm).					
4005.2.3	Fire protection for rack storage.	New section	No	No	
4005.2.3 Fire protection for rack storage. Rack storage arrangements of alcohol-water mixtures up to 75 percent alcohol in wooden barrels with sizes not exceeding 130 gallons (492 L) shall be protected in accordance with Sections 4005.2.3.1 through 4005.2.3.6.					
4005.2.3.1	Hose stream allowance.	New section	No	No	
4005.2.3.1 Hose stream allowance. The *automatic sprinkler system* design shall include a 500-gallon-per-minute (1900 L/min) hose stream allowance.					
4005.2.3.2	Water supply duration.	New section	No	No	
4005.2.3.2 Water supply duration. The *automatic sprinkler system* water supply duration, including hose stream demand, shall be a minimum of 1 hour.					
4005.2.3.3	Dry-pipe automatic sprinkler systems.	New section	No	No	
4005.2.3.3 Dry-pipe automatic sprinkler system. Where dry-pipe *automatic sprinkler systems* are installed, the *automatic sprinkler system* shall be designed to deliver water to the most remote four sprinklers within 40 seconds.					
4005.2.3.4	Ceiling automatic sprinkler systems.	New section	No	No	
4005.2.3.4 Ceiling automatic sprinkler systems. The *automatic sprinkler systems* installed at the ceiling shall be designed with a minimum density of 0.2 gallon per minute (0.8 L/min) per square foot with an operating area of 2,000 square feet (186 m^2).					
4005.2.3.5	Automatic sprinkler system balancing.	New section	No	No	
4005.2.3.5 Automatic sprinkler system balancing. The *automatic sprinkler system* installed at the ceiling and the in-rack sprinkler system shall be balanced at the point of connection.					
4005.2.3.6	Automatic sprinkler system design.	New section	No	No	
4005.2.3.6 Automatic sprinkler system design. The design of the *automatic sprinkler system* at the ceiling and the in-rack sprinkler system shall be in accordance with Table 4005.2.3.6.					
FIGURE 4005.2.3.6(1)	IN-RACK SPRINKLER LAYOUT FOR WOODEN BARRELS ON THEIR SIDES (PLAN VIEW)	New figure	No	No	

FIGURE 4005.2.3.6(1)—IN-RACK SPRINKLER LAYOUT FOR WOODEN BARRELS ON THEIR SIDES (PLAN VIEW)

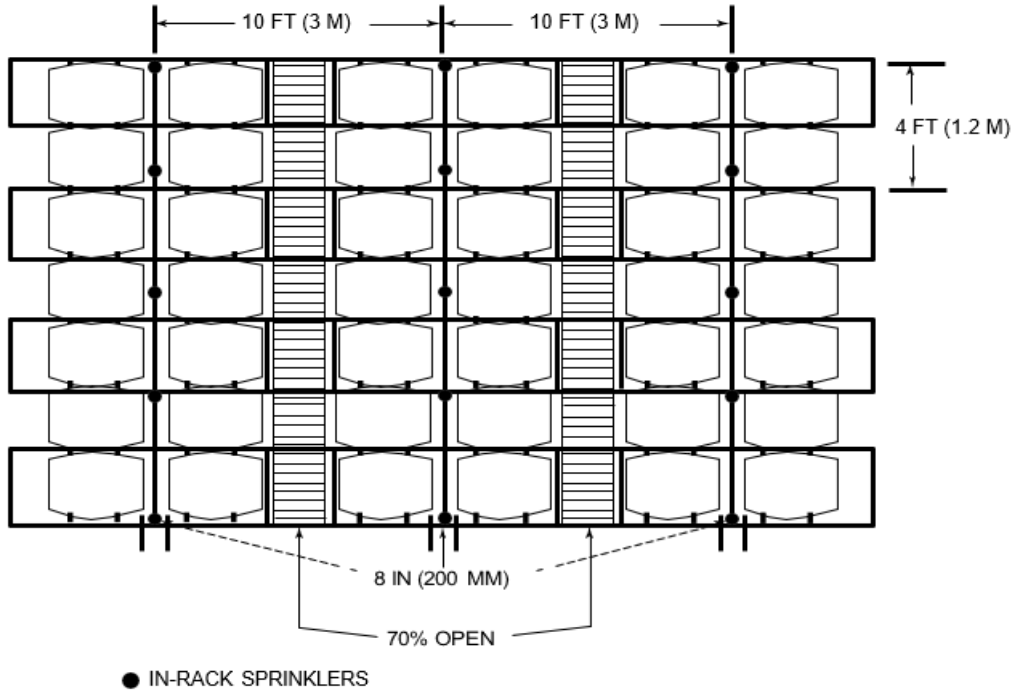

Figure credit: FM Global Property Loss Prevention Data Sheet 7-29

FIGURE 4005.2.3.6(2)	IN-RACK SPRINKLER LAYOUT FOR WOODEN BARRELS ON THEIR SIDES (ELEVATION VIEW)	New figure	No	No	

FIGURE 4005.2.3.6(2)—IN-RACK SPRINKLER LAYOUT FOR WOODEN BARRELS ON THEIR SIDES (ELEVATION VIEW)

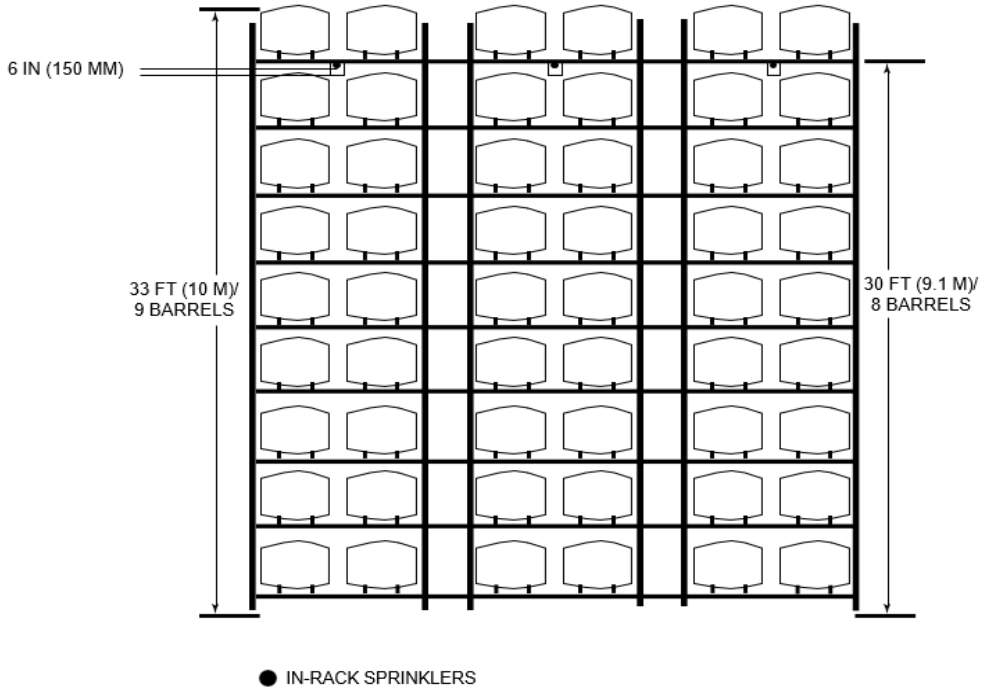

Figure credit: FM Global Property Loss Prevention Data Sheet 7-29

FIGURE 4005.2.3.6(3)	IN-RACK SPRINKLER LAYOUT FOR SINGLE-ROW RACK OF ON-END WOODEN BARRELS	New figure	No	No	

FIGURE 4005.2.3.6(3)—IN-RACK SPRINKLER LAYOUT FOR SINGLE-ROW RACK OF ON-END WOODEN BARRELS

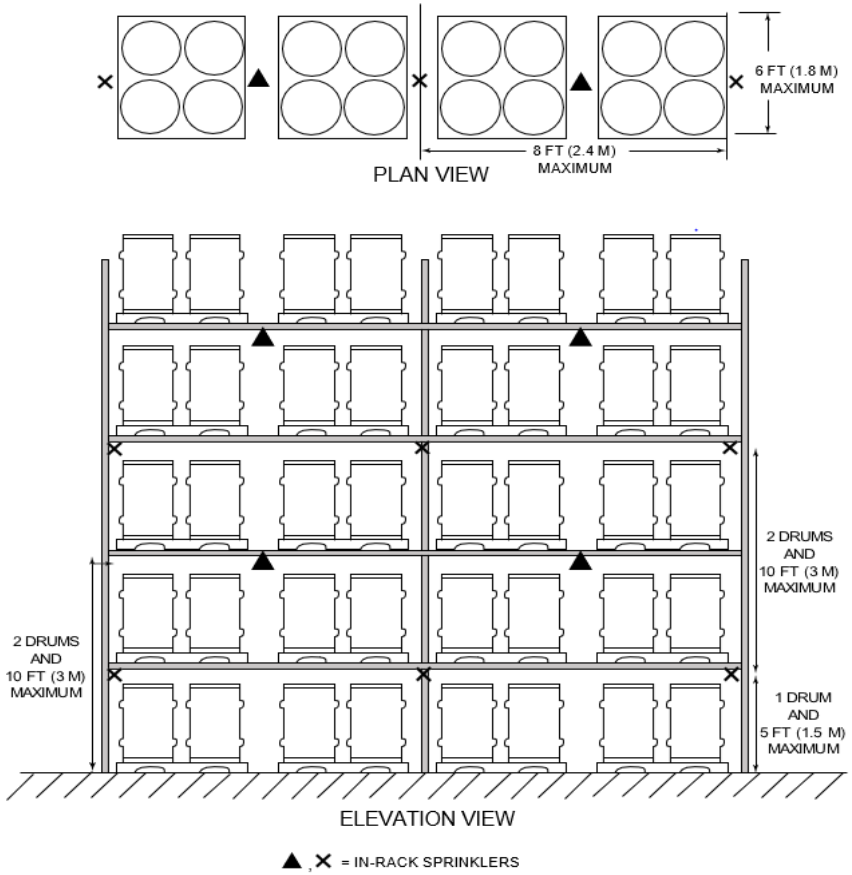

Figure credit: FM Global Property Loss Prevention Data Sheet 7-29

FIGURE 4005.2.3.6(4)	IN-RACK SPRINKLER LAYOUT FOR DOUBLE-ROW RACK OF ON-END WOODEN BARRELS	New figure	No	No	

FIGURE 4005.2.3.6(4)—IN-RACK SPRINKLER LAYOUT FOR DOUBLE-ROW RACK OF ON-END WOODEN BARRELS

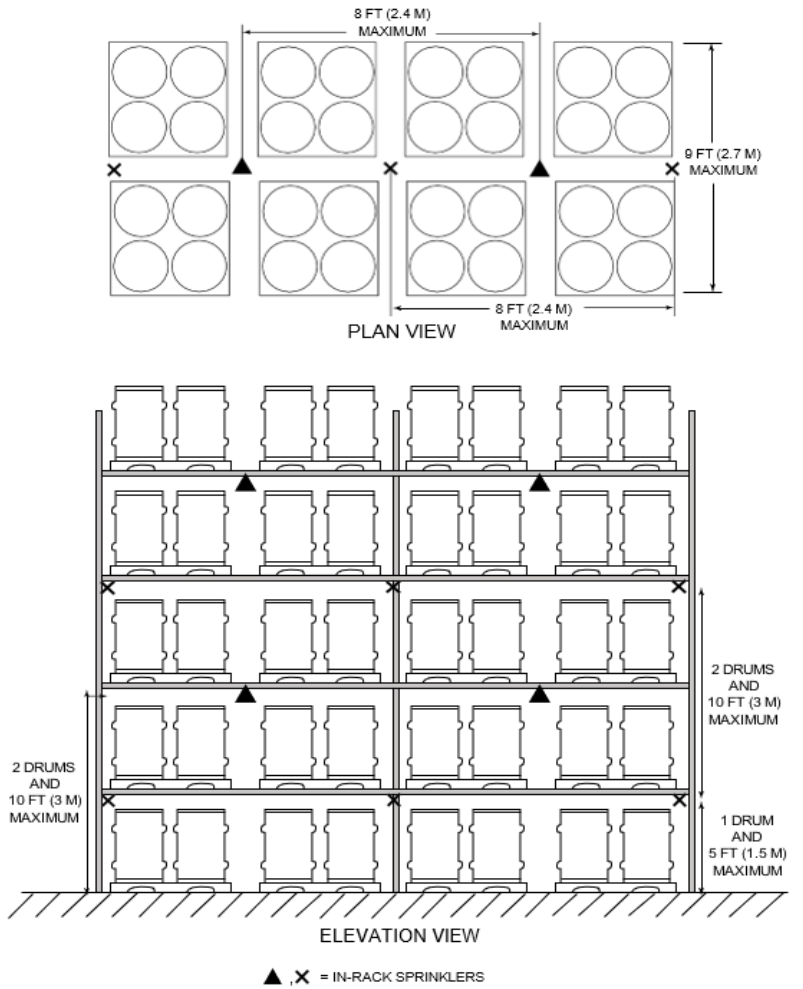

Figure credit: FM Global Property Loss Prevention Data Sheet 7-29

FIGURE 4005.2.3.6(5)	IN-RACK SPRINKLER LAYOUT FOR MULTI-ROW RACK OF ON-END WOODEN BARRELS	New figure	No	No	

FIGURE 4005.2.3.6(5)—IN-RACK SPRINKLER LAYOUT FOR MULTIPLE-ROW RACK OF ON-END WOODEN BARRELS

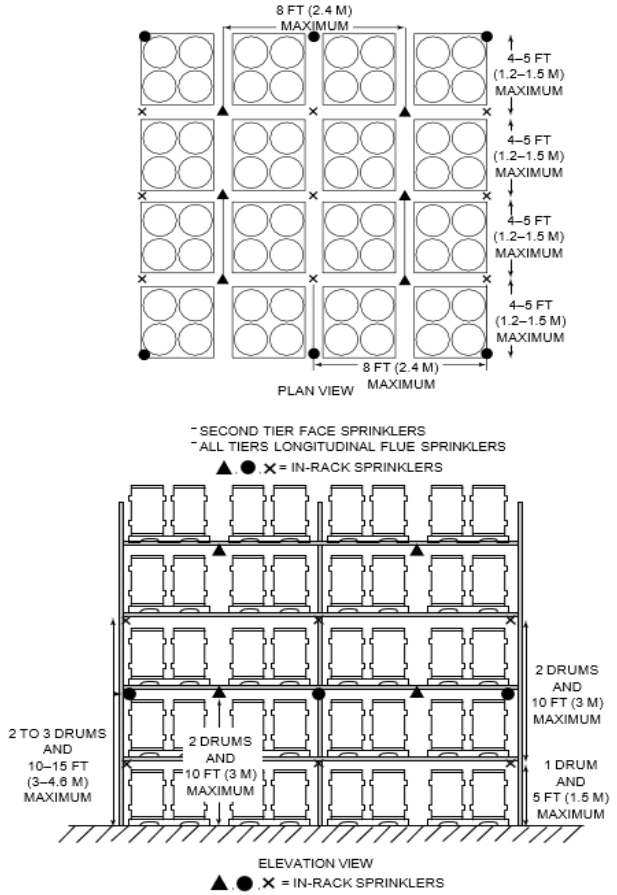

Figure credit: FM Global Property Loss Prevention Data Sheet 7-29

TABLE 4005.2.3.6	RACK STORAGE OF DISTILLED SPIRITS IN WOODEN BARRELS	New table	No	No	

TABLE 4005.2.3.6—RACK STORAGE OF DISTILLED SPIRITS IN WOODEN BARRELS

BARREL ARRANGEMENT	SPRINKLER SYSTEM TYPE	MAXIMUM CEILING HEIGHT (feet)	MAXIMUM STORAGE HEIGHT (feet)	MINIMUM AISLE WIDTH (feet)	CEILING SPRINKLER PROTECTION			IN-RACK SPRINKLER PROTECTION			
					Response/ Nominal Temperature Rating/ Orientation	K-Factor (gpm/psi$^{1/2}$)	Design, # of Sprinklers @ Pressure (psi)	Layout	Response/ Nominal Temperature Rating/ Orientation	K-Factor (gpm/psi$^{1/2}$)	Design[a], # of Sprinklers @ Pressure (psi)
On-side	Wet	40	33 feet/ 9 barrels	NA	QR/165°F/ Pendent	14.0	12 @ 37	None			
					SR/286°F/Any	≥ 11.2	20 @ 7	Figures 4005.2.3.6(1) and 4005.2.3.6(2)	QR/165°F/Any	8.0	6 @ 45 (one level of in-racks) or 12 @ 45 (more than one level of in racks)
	Dry	40	33 feet/ 9 barrels	NA	SR/286°F/ Upright	16.8	24 @ 25	None			
					SR/286°F/ Upright	≥ 11.2	20 @ 7	Figures 4005.2.3.6(1) and 4005.2.3.6(2)	QR/165°F/ Upright	8.0	6 @ 45 (one level of in-racks) or 12 @ 45 (more than one level of in racks)
On-end	Wet	30	25 feet/ 5 barrels	8	SR/286°F/Any	≥ 11.2	50 @ 7	Figures 4005.2.3.6(3), 4005.2.3.6(4) and 4005.2.3.6(5)	QR/165°F/Any	≥ 8.0	6 @ 25 (one level) or 12 @ 25 (more than one level)

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m2, 1 pound per square inch (psi) = 6.895 kPa, K-factor of 1 gpm/psi$^{1/2}$ = 14.395 L/min/bar$^{1/2}$, °C = (°F – 32)/1.8.
QR = Quick Response; SR = Standard Response; NA = Not Applicable.
a. Sprinklers shall have a maximum coverage area of 100 square feet.

4005.3	Wine with 20 percent or less alcohol content.	New section	No	No	

4005.3 Wine with 20 percent or less alcohol content. The storage of wine in barrels with an alcohol content of 20 percent or less shall be protected by an *approved automatic sprinkler system* installed throughout in accordance with Section 903.3.1.1.

Cost Commentary--One of the conceptual changes is the threshold at which the percentage of alcohol results in a higher classification of hazard. Traditionally, beverages with an alcohol content greater than 16% were considered to present a higher level of hazard and were therefore placed into Group F-1 for manufacturing and packaging and Group S-1 for storage. Recent testing by FM Global demonstrates that the 16% threshold was too conservative and the threshold is being revised to 20%. This code change will not increase the cost of construction. Chapter 40 of the Fire Code already requires an approved fire sprinkler system for new distilleries and storage facilities for distilled spirits. This code change does not increase that requirement but will provide guidance and consistency in how jurisdictions apply the fire sprinkler requirement.

41 Temporary Heating and Cooking Operations					
4101.1	General	Define "Temporary", may need a definition section added or utilize and insert/adopt: **3103.4 Use period.** Temporary tents, air-supported, air-inflated or tensioned membrane structures shall not be erected for a period of more than 180 days within a 12-month period on a single premises or dependent on the AHJ?	No	Yes	Proposal Needed to define Temporary

4101.1 General. The provisions of this chapter shall apply to the use, operation, testing and maintenance of mobile and portable equipment and devices used for temporary heating and cooking. Temporary heating and cooking operations with open flames shall also comply with any additional applicable requirements in Section 308.Definition Consideration for **Temporary** **Exception:** Temporary heating devices used in the course of construction, alteration and demolition of structures shall comply with Section 3304.					
4101.2	Permits	New section no concerns	No	No	
4101.2 Permits. Operational permits shall be obtained as set forth in Section 105.5.					
4101.3	Listed equipment	New section no concerns	No	No	
4101.3 Listed equipment. Mobile and portable equipment and devices used for temporary heating and cooking shall be *listed* and *labeled*. The installation, maintenance and use of equipment and devices shall be in accordance with their listing and the manufacturer's instructions.					
4101.4	Operation and maintenance	New section no concerns	No	No	
4101.4 Operation and maintenance. The building owner or the equipment owner/operator shall operate and maintain the equipment in accordance with the manufacturer's operating instructions and this section.					
4101.4.1	Wildfire risk area	New section no concerns	No	No	
4101.4.1 Wildfire risk area. Temporary heating and cooking operations shall be in accordance with applicable local wildfire risk area regulations.					
4101.4.2	Attendance	New section no concerns	No	No	
4101.4.2 Attendance. Mobile and portable heating and cooking equipment shall be constantly attended while in use and until cooled to a safe temperature.					
4101.4.3	Fire extinguishers	New section no concerns	No	No	
4101.4.3 Fire extinguishers. Not fewer than one portable fire extinguisher complying with Section 906 with a minimum 4-A rating or other *approved* on-site fire-extinguishing equipment shall be available for immediate utilization.					
4101.6.1	General	If new amendment is adopted this will need to be updated to acount for my proposed 4101.6.3.1 section.	No	No	
4101.6.1 General. LP-gas equipment such as containers, tanks, piping, hoses, fittings, valves, tubing and other related components shall be *approved* and in accordance with Chapter 61 and with the *International Fuel Gas Code*.					
4101.6.4	Refueling	New section no concerns	No	No	
4101.6.4 Refueling. Exchanging of LP containers shall be conducted in accordance with Chapter 61. Liquid transfer of LP gas shall be in accordance with Chapter 7 of NFPA 58.					
4101.7	Oil-fired heaters	New section no concerns	No	No	
4101.7 Oil-fired heaters. Oil-fired cooking and heating equipment shall comply with Section 605 and this chapter.					
4101.8	Refueling of flammable and combustible liquid-fueled equipment	Recommend adding "refueling" & 20ft. is consistant with 3108.13.3 Refueiling requirements from tents or membrane structures.	No	Yes	Proposal Needed

4101.8 Refueling of flammable and combustible liquid-fueled equipment. Refueling operations for liquid-fueled equipment or devices shall be conducted in accordance with Section 5705 and all of the following:

1. Refueling operations for liquid-fueled equipment or devices shall be conducted by trained personnel in accordance with the manufacturer's instructions and this code.
2. The equipment or device shall be turned off and allowed to cool prior to refueling.
3. Refueling operations shall be conducted in a well-ventilated area at a minimum of 10 feet 20 feet (3048 mm) from any building or structure.

4101.9	Cooking operations	See word document for recomindation	No	Yes	Proposal Needed

4101.9 Cooking operations. Portable cooking equipment using combustible oils or solids shall comply with all of the following:

1. A noncombustible lid shall be immediately available. The lid shall be of sufficient size to cover the cooking well completely.
2. Equipment shall be placed on a noncombustible surface.
3. A portable fire extinguisher for protection appropriate to the cooking media shall be provided at a location *approved* by the *fire code official*.
4. Appropriate clearance from combustible and ignition sources shall be approved by the *fire code official*.

4101.10	Hazard abatement	New section no concerns	No	No	

4101.10 Hazard abatement. Operations or conditions deemed unsafe or hazardous by the *fire code official* shall be abated. Equipment and devices that are modified or damaged and constitute an electrical shock or fire hazard shall not be used.

4101.10.1	Correction of unsafe conditions.	New section no concerns	No	No	

4101.10.1 Correction of unsafe conditions. The *fire code official* shall be authorized to require the owner, the owner's authorized agent, operator or user of the equipment to abate unsafe operations or conditions or cause such conditions to be abated or corrected either by removal, repair, rehabilitation, disposal or other *approved* corrective action in compliance with this code.

4104.1	Portable Fuel-Fired Cooking App	New section no concerns	No	No	

4104.1 Portable fuel-fired cooking appliances. Portable fuel-fired cooking appliances shall be permitted to be used in all occupancies in accordance with this section.

4104.2	Open Flame Cooking Devices	Moved Section from 308.1.4 Was not adopted Needs to remain not adopted in new location	No	Yes	Proposal Needed

4104.2 Open-flame cooking devices. Charcoal burners and other open-flame cooking devices shall not be operated on combustible balconies or within 10 feet (3048 mm) of combustible construction.

Exceptions:

1. One- and two-family *dwellings*.
2. Where buildings, balconies and decks are protected by an *automatic sprinkler system*.
3. LP-gas cooking devices having LP-gas container with a water capacity not greater than $2^1/_2$ pounds [nominal 1 pound (0.454 kg) LP-gas capacity].

4104.3	Indoor cooking	Consideration for storage of wood pizza ovens?	No	No	Industry Proposal Expected

4104.3 Indoor cooking. Portable fuel-fired cooking appliances used indoors shall not be located within 10 feet (3048 mm) of exits or combustible materials.

4104.4	Cooking operations	See word document for recomindation	No	Yes	Proposal Needed

4104.4 Cooking operations. Cooking that produces sparks or grease-laden vapors shall not be performed within 10 feet (3048 mm) of a *tent* or *membrane structure* except where the following conditions are met: 1. Cooking devices shall be isolated from the public. 2. Cooking devices shall be maintained and used according to the manufacturer's instructions. 3. A "Class K" portable fire extinguisher is readily available. 4. 3-foot clearance is maintained from cooking operations and combustibles. **Exception:** Designated cooking tents with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.					
4104.5	Seperation	New section no concerns	No	No	
4104.5 Separation of cooking tents. *Tents* with sidewalls or drops where cooking is performed shall be separated from other non-cooking tents or membrane structures by not less than 10 feet (3048 mm). **Exception:** Small tents limited to 100 square feet (9.3 m²) that are accessory to the cooking operations of the cooking tent and are not occupied by the public.					
4105.1	Portable electrical cooking appli	New section no concerns	No	No	
4105.1 Portable electric cooking appliances. Portable electric cooking appliances shall be permitted to be used in all occupancies in accordance with Sections 4105.1.1 through 4105.1.5.					
4105.1.1	Listed and labeled	New section no concerns	No	No	
4105.1.1 Listed and labeled. Portable electric cooking appliances shall be *listed* and *labeled* and shall be used in accordance with their listing and the manufacturer's instructions.					
4105.1.2	Power supply	See word document for recomindation	No	Yes	Proposal Needed
4105.1.2 Power supply. Portable electric cooking appliances shall be plugged directly into an *approved* receptacle or connected to an approved and listed a relocatable power tap rated 20 amps (2400 W).					
4105.1.3	Extension Cords	New section no concerns	No	No	
4105.1.3 Extension cords. Portable electric cooking appliances shall not be plugged into extension cords.					
4105.1.4	Temorary connections	New section no concerns	No	No	
4105.1.4 Temporary connections. Where portable electric cooking appliances are used for temporary operations, the appliance shall be disconnected from the power supply when not in use.					
4105.1.5	Prohibited areas	New section no concerns	No	No	
4105.1.5 Prohibited areas. Portable electric cooking appliances shall not be operated within 3 feet (914 mm) of any combustible materials or in Group H occupancies. Portable electric cooking appliances shall be operated only in locations for which they are *listed*.					
4106	Mobile Food Preparation Vehicles	Moved Section from 2021 Section 319	No	NO	Amendments to this section will be driven by industry proposals
SECTION 4106—MOBILE FOOD PREPARATION VEHICLES					
4106.1	General	New section no concerns	No	No	Keep existing amendment Coordinate existing amendment from 2021 Section 319 to add or utilixze LP-gas or CNG systems.
4106.1 General. Mobile food preparation vehicles that are equipped with appliances that produce smoke or grease-laden vapors or utilize LP-gas systems or CNG systems for the purpose of preparing, cooking or serving food shall comply with NFPA 96 and this section. Indoor use of mobile food preparation vehicles is prohibited unless *approved* by the *fire code official*.					
4106.4	Maintenance	New section no concerns	No	No	

4106.4 Maintenance. Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 4106.4.1 through 4106.4.3.					
4106.4.1	Exhaust systems	New section no concerns	No	No	
4106.4.1 Exhaust system. The exhaust system, including hood, grease-removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with NFPA 96.					
4106.4.2	Fire protection systems and devices	Recommend adding fire extiguisher section per 906	No	Yes	
4106.4.2 Fire protection systems and devices. Fire protection systems and devices shall be maintained in accordance with Section 901.6. and section 906.					
4106.4.3	Fuel gas systems	New section no concerns	No	No	
4106.4.3 Fuel gas systems. Fuel gas systems shall be maintained in accordance with Sections 4106.4.3.1 through 4106.4.3.4. **4106.4.3.1 Lp-gas systems.** LP-gas containers installed on the vehicle and fuel gas piping systems shall be inspected annually by an *approved* inspection agency, person or special expert who is qualified to ensure that system components are free from damage, suitable for the intended service and not subject to leaking.					
4106.4.3.1	LP-gas systems	Recommend removing this section	No	Yes	
4106.4.3.1 Lp-gas systems. LP-gas containers installed on the vehicle and fuel gas piping systems shall be inspected annually by an *approved* inspection agency, person or special expert who is qualified to ensure that system components are free from damage, suitable for the intended service and not subject to leaking.					
4106.4.3.3	Annual leakage test	Recommend removing this section, see word document for recommendation.	No	Yes	
4106.4.3.3 Annual leakage test. All fuel gas piping systems and appliances shall be checked annually for leakage at the operating pressure of the system using a manometer or pressure gauge. Where leakage is indicated, the gas supply shall be turned off until repairs have been made and the system no longer leaks.					
4106.5	Mannual system operaiton for the automatic fire extinguihsing systems(s)	New section no concerns	No	NO	
4106.5 Manual system operation for the automatic fire extinguishing system(s). A manual actuation device shall be provided for the *automatic fire extinguishing system(s)* provided for the cooking appliance(s). The manual actuation device shall be unobstructed and in view from the means of egress, located at or near a means of egress from the cooking area, and at a location acceptable to the *fire code official*. The manual actuation device shall be installed not more than 48 inches (1200 mm) nor less than 42 inches (1067 mm) above the walking surface of the means of egress and shall clearly identify the hazard protected. The manual actuation shall require a maximum force of 40 pounds (178 N) and a maximum movement of 14 inches (356 mm) to actuate the fire suppression system.					
4106.6	Solid fuel	Recommend new amendment to take into consideration solid fuel burning such as mobile pizza ovens located within the vehicle. Or determine if we do not allow these types of food truck to be in operation. Concerns with discarded smoldering embers.	Yes	Yes	
4106.6 Solid fuel. The use of wood burning ovens within the mobile food preparation vehicle shall have a listed carbon monoxide detector installed within the vehicle per the manufacture's recommendations.					
4106.7	Oven	Consideration fo the intalltion requirment for wood burning ovens. UL 2126 requirements?	No	Yes	Proposal Needed

4106.7 Ovens. Ovens shall have direct venting in accordance with the manufacturer's recommendations.					
42 Reserved					
43 Reserved					
44 Reserved					
45 Reserved					
46 Reserved					
47 Reserved					
48 Reserved					
49 Fixed Guideway Transit and Passendger Rail Systems					
No Significant Changes					
50 Hazardous Materials - General Provisions					
TABLE 5003.1.1(5)	HAZARDOUS MATERIALS EXEMPTIONS	New table	No	No	Proposals May come in for this Table

TABLE 5003.1.1(5)—HAZARDOUS MATERIALS EXEMPTIONS[a]		
MATERIAL CLASSIFICATION	**OCCUPANCY OR APPLICATION**	**EXEMPTION**
Combustible fiber	Baled cotton	Densely packed baled cotton shall not be classified as combustible fiber, provided that the bales comply with the packing requirements of ISO 8115.
Corrosive	Building materials	The quantity of commonly used building materials that are classified as corrosive materials is not limited.
	Personal and household products	The quantity of personal and household products that are classified as corrosive materials is not limited in retail displays, provided that the products are in original packaging.
	Retail and wholesale sales occupancies	The quantity of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids, with the remainder of the solutions not being flammable, is not limited. To qualify for this allowance, such materials shall be packaged in individual containers not exceeding 1.3 gallons.
Explosives	Groups B, F, M and S	Storage of special industrial explosive devices is not limited.
	Groups M and R-3	Storage of black powder, smokeless propellant, and small arms primers is not limited.
	Aerosols	Buildings and structures occupied for the storage of aerosol products, aerosol cooking spray products, or plastic aerosol 3 products shall be classified as Group S-1.
	Alcoholic beverages	The quantity of alcoholic beverages in liquor stores and distributors without bulk storage is not limited.
		The quantity of alcoholic beverages in distilling or brewing of beverages is not limited.
		The storage quantity of beer, distilled spirits and wines in barrels and casks is not limited.
		The quantity of alcoholic beverages in retail and wholesale sales

Flammable and combustible liquids and gases		occupancies is not limited. To qualify for this allowance, beverages shall be packaged in individual containers not exceeding 1.3 gallons.
	Cleaning establishments with combustible liquid solvents	The quantity of combustible liquid solvents used in closed systems and having a flash point at or above 140°F is not limited. To qualify for this allowance, equipment shall be listed by an approved testing agency and the occupancy shall be separated from all other areas of the building by 1-hour fire barriers or 1-hour horizontal assemblies, or both, constructed in accordance with the *International Building Code*.
		The quantity of combustible liquid solvents having a flash point at or above 200°F is not limited.
	Closed piping systems	The quantity of flammable and combustible liquids and gases utilized for the operation of machinery or equipment is not limited.
	Flammable finishing operations using flammable and combustible liquids	Buildings and structures occupied for the application of flammable finishes shall comply with Section 416.
	Fuel	The quantity of liquid or gaseous fuel in fuel tanks on vehicles or motorized equipment is not limited.

TABLE 5003.1.1(5)—HAZARDOUS MATERIALS EXEMPTIONS[a]—continued

MATERIAL CLASSIFICATION	OCCUPANCY OR APPLICATION	EXEMPTION
Flammable and combustible liquids and gases—continued	Fuel—continued	The quantity of gaseous fuels in piping systems and fixed appliances regulated by the *International Fuel Gas Code* is not limited.
		The quantity of liquid fuels in piping systems and fixed appliances regulated by the *International Mechanical Code* is not limited.
	Fuel oil	The quantity of fuel oil storage complying with Section 605.4.2 is not limited.
	Hand sanitizer	The quantity of alcohol-based hand rubs (ABHR) classified as Class I or II liquids in dispensers installed in accordance with Sections 5705.5 and 5705.5.1 is not limited. The location of the ABHR shall be provided in the construction documents.
	Retail and wholesale sales occupancies with flammable and combustible liquids	The quantity of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids, with the remainder of the solutions not being flammable, is not limited. To qualify for this allowance, such materials shall be packaged in individual containers not exceeding 1.3 gallons.
Highly toxic and toxic materials	Retail and wholesale sales occupancies	The quantity of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids, with the remainder of the solutions not being flammable, is not limited. To qualify for this allowance, such materials shall be packaged in individual containers not exceeding 1.3 gallons.
Any	Agricultural materials	The quantity of agricultural materials stored or utilized for agricultural purposes on the premises is not limited.
	Energy storage	The quantity of hazardous materials in stationary storage battery systems is not limited.
		The quantity of hazardous materials in stationary fuel cell power systems is not limited.
		The quantity of hazardous materials in capacitor energy storage systems is not limited.
	Refrigeration systems	The quantity of refrigerants in refrigeration systems is not limited.

For SI: 1 gallon = 3.785 L, °C = (°F – 32)/1.8.

a. Exempted materials and conditions listed in this table are required to comply with provisions of this code that are not based on exceeding maximum allowable quantities in Section 5003.

5003.8.3.5.4	Flammable gas.	New section for control area of flammable gas.	No	No	Proposals May come in for this Table

5003.8.3.5.4 Flammable gas. The aggregate quantity of Category 1B flammable gas having a burning velocity of 3.9 in/s (10 cm/s) or less stored and displayed within a single control area of a Group M occupancy, in an outdoor control area or stored in a single control area of a Group S occupancy is allowed to exceed the maximum allowable quantities per *control area* specified in Table 5003.1.1(1) without classifying the building or use as a Group H occupancy, provided that the materials are stored and displayed in accordance with Section 5003.11.2.

5003.8.7.2	Doors.	New section	No	No	

5003.8.7.2 Doors. Doors shall be well fitted, self-closing and equipped with a self-latching device.

5003.8.7.3	Electrical.	New section	No	No	Review to identify if WAC for LNI is included in other electrical sections of WA code.

5003.8.7.3 Electrical. Electrical equipment and devices within cabinets used for the storage of hazardous gases or liquids shall be in accordance with NFPA 70.

5003.11.2	Category 1B flammable gas with low burning velocity.	New section	No	No	Proposals May come in for this Table

5003.11.2 Category 1B flammable gas with low burning velocity. The aggregate quantity of Category 1B flammable gas having a burning velocity of 3.9 in/s (10 cm/s) or less stored and displayed within a single control area of a Group M occupancy, in an outdoor control area or stored in a single control area of a Group S occupancy shall not exceed the amounts set forth in Table 5003.11.2.

TABLE 5003.11.2	MAXIMUM ALLOWABLE QUANTITY OF LOW BURNING VELOCITY CATEGORY 1B FLAMMABLE GAS IN GROUP M AND S OCCUPANCIES PER CONTROL AREA	New table	No	No	Proposals May come in for this Table

TABLE 5003.11.2—MAXIMUM ALLOWABLE QUANTITY OF LOW BURNING VELOCITY CATEGORY 1B FLAMMABLE GAS IN GROUP M AND S OCCUPANCIES PER CONTROL AREA[a]

CATEGORY 1B (Low BV)[d]	SPRINKLERED IN ACCORDANCE WITH NOTE B	NONSPRINKLERED
Gaseous	39,000 ft³	195,000 ft³
Liquified	40,000 lb	20,000 lb

For SI: 1 pound = 0.454 kg, 1 cubic foot = 0.028 m³.

a. Control areas shall be separated from each other by not less than a 1-hour fire barrier.
b. The building shall be equipped throughout with an approved automatic sprinkler system with a minimum sprinkler design density of Ordinary Hazard Group 2 in the area where flammable gases are stored or displayed.
c. Where storage areas exceed 50,000 square feet in area, the maximum allowable quantities area is allowed to be increased by 2 percent for each 1,000 square feet of area in excess of 50,000 square feet, up to not more than 100 percent of the table amounts. Separation of control areas is not required. The aggregate amount shall not exceed 80,000 pounds.
d. "Low BV" Category 1B flammable gas has a burning velocity of 3.9 in/s (10 cm/s) or less.

5003.11.2.1	Fire protection and storage arrangements.	New section	No	No	Proposals May come in for this Table

5003.11.2.1 Fire protection and storage arrangements. Fire protection and container storage arrangements for quantities of Category 1B flammable gases permitted by Table 5003.11.2 shall be in accordance with the all of the following:

1. Storage of Category 1B flammable gases on shelves shall not exceed 6 feet (1829 mm) in height, and shelving shall be metal.
2. Rack storage, pallet storage or piles of Category 1B flammable gas greater than 6 feet 6 inches (1981 mm) in height shall be provided with an automatic sprinkler system with a minimum design density of Extra Hazard Group 1.
3. Combustible commodities shall not be stored above Category 1B flammable gases.
4. Flammable liquids shall be separated from Category 1B flammable gases by a distance of not less than 20 feet (6096 mm). The separation is permitted to be reduced to 10 feet (3048 mm) where secondary containment or diking is provided to retain a flammable liquid spill at a distance of 10 feet (3048 mm) from the Category 1B flammable gas storage.

5003.13	Outdoor rooftop storage, use and handling.	New section	No	No	

5003.13 Outdoor rooftop storage, use and handling. Storage, use and handling and use of hazardous materials on top of roofs or canopies shall be classified as rooftop storage or use and shall comply with Sections 5003.13.1 through 5003.13.5.

5003.13.1	Occupancy classification.	New section	No	No	

5003.13.1 Occupancy classification. Quantities of hazardous materials stored, used or handled on top of roofs or canopies shall be classified as rooftop storage or use and shall not be used to determine the occupancy classification of the building.

5003.13.2	Maximum allowable quantity per rooftop or canopy.	New section	No	No	

5003.13.2 Maximum allowable quantity per rooftop or canopy. The storage, use and handling of hazardous materials on top of a roof or canopy shall not exceed the maximum allowable quantity set forth in Tables 5003.1.1(1) and 5003.1.1(2). LP-gas storage and use shall be in accordance with Chapter 61.

Exceptions:

1. Pollution control, exhaust treatment and dust collection equipment.
2. *Combustible liquids* complying with Chapter 57 and NFPA 30.
3. Hydrogen storage at motor fuel-dispensing facilities in accordance with Chapter 23.
4. Hazardous materials in closed piping systems complying with this code.
5. Hazardous materials on top of a normally unoccupied exterior equipment platform necessary for operation of mechanical systems or industrial process equipment.
6. Hazardous materials necessary for rooftop swimming pool or hot tub treatment systems, limited to a maximum container size of 50 gallons (189 L) or 500 pounds (227 kg) of toxic or *corrosive* materials, and 200 pounds (91 kg) or 20 gallons (76 L) of *oxidizers*.
7. Other situations where rooftop storage or use of hazardous materials is necessary for the operation of equipment serving the building and is *approved*.

5003.13.3	Story adjustment.	New section	No	No	

5003.13.3 Story adjustment. In addition to the quantity limits in Section 5003.13.2, rooftop storage and use shall be limited to the percentage of maximum allowable quantity identified in Table 5003.8.3.2 based on the number of stories above grade of the building on which the roof is located.

5003.13.4	Other requirements.	New section	No	No	

5003.13.4 Other requirements. In addition to the quantity limits of this section, rooftop storage and use shall comply with other applicable requirements of this code for outdoor storage. This section applies to the exceptions identified in Section 5003.13.2.

5003.13.5	Weather protection.	New section	No	No	

5003.13.5 Weather protection. Weather protection provided for sheltering rooftop storage or use shall comply with Section 414.6.1 of the *International Building Code*, except that there is no distance required to the building on which it is located.

Cost Commentary--This change coordinates the requirements for flammable gas with the change in definition to "flammable gas." The change in definition results in two categories of flammable gas, Category 1A and Category 1B. The code change proposal will decrease the cost of construction. This code change reduces the cost of construction. By modifying the maximum allowable quantities for Category 1B flammable gas, the constructioncosts are lowered. The construction costs for Category 1A flammable gas remain unchanged, neither increased nor decreased in the cost of construction.					
51 Aerosols Reserved					
52 Reserved					
53 Compressed Gases					
5306.5	Medical gas systems and equipment	WA amendment revises section and title.	N	N	Go with model Code
54 Corrosive Materials					
No Significant Changes					
55 Cryogenic Fluids					
No Significant Changes					
56 Explosives and Fireworks					
No Significant Changes					
57 Flammable and Combustible Liquids					
No Significant Changes					
58 Flammable and Combustible Liquids					
5809.1	General.	New section	No	No	Proposals May come in for this Section
5809.1 General. On-demand *hydrogen mobile fueling* operations that dispense gaseous hydrogen into the fuel tanks of motor vehicles shall comply with Sections 5809.1 through 5809.6.5.					
5809.1.1	Approval required.	New section	No	No	Proposals May come in for this Section
5809.1.1 Approval required. *Hydrogen mobile fueling* operations shall not be conducted without first obtaining a permit and approval from the *fire code official*. *Hydrogen mobile fueling* operations shall occur only at *approved* locations. The *fire code official* is authorized to approve individual locations or geographic areas where *mobile fueling* is allowed.					
5809.2	Hydrogen mobile fueling vehicle or trailer.	New section	No	No	Proposals May come in for this Section
5809.2 Hydrogen mobile fueling vehicle or trailer. An on-demand *hydrogen mobile fueling* vehicle or *mobile fueling* trailer shall be that which is utilized in on-demand fueling operations for the dispensing of gaseous hydrogen into the fuel tanks of motor vehicles.					
5809.2.1	Hydrogen mobile fueling vehicle requirements.	New section	No	No	Proposals May come in for this Section

5809.2.1 Hydrogen mobile fueling vehicle requirements. Each *hydrogen mobile fueling* vehicle or *mobile fueling* trailer shall comply with all local, state and federal requirements, as well as the following:

1. The *hydrogen mobile fueling* vehicle or *mobile fueling* trailer and its equipment shall be in compliance with the appropriate requirements of NFPA 2.
2. *Hydrogen mobile fueling* vehicles or *mobile fueling* trailers shall only contain and dispense gaseous hydrogen.
3. The *hydrogen mobile fueling* vehicle or *mobile fueling* trailer and its equipment shall be maintained in good repair.
4. Fueling a hydrogen motor vehicle shall be from tanks or containers mounted on a *mobile fueling* trailer or from tanks or containers mounted on a *mobile fueling* vehicle. A *mobile fueling* operation shall not combine a *mobile fueling* vehicle with a *mobile fueling* trailer.
5. *Mobile fueling* vehicles and trailers shall be provided with at least one minimum 10-pound ABC dry-chemical portable fire extinguisher with an agent discharge rate of 1 pound per second (0.454 kg/s) or greater.

5809.3	Required documents.	New section	No	No	Proposals May come in for this Section

5809.3 Required documents. Documents developed to comply with Sections 5809.3.1 through 5809.3.3 shall be updated as necessary by the owner of the *mobile fueling* operation and shall be maintained in compliance with Section 110.3.

5809.3.1	Safety and emergency response plan.	New section	No	No	Proposals May come in for this Section

5809.3.1 Safety and emergency response plan. *Hydrogen mobile fueling* operators shall have an *approved* written safety and emergency response plan that establishes policies and procedures for fire safety, release and control, personnel training and compliance with other applicable requirements of this code.

5809.3.2	Training records.	New section	No	No	Proposals May come in for this Section

5809.3.2 Training records. *Hydrogen mobile fueling* vehicles or *mobile fueling* trailers shall be operated only by designated personnel who are trained on proper fueling procedures and the safety and emergency response plan. Training records of operators shall be maintained.

5809.3.3	Site plan.	New section	No	No	Proposals May come in for this Section

5809.3.3 Site plan. Where required by the *fire code official*, a site plan shall be developed for each location at which *hydrogen mobile fueling* occurs. The site plan shall be of sufficient detail to indicate the following:

1. All buildings and structures.
2. Lot lines or property lines.
3. Solar photovoltaic parking lot canopies.
4. Appurtenances on-site and their use or function.
5. All uses adjacent to the lot lines of the site.
6. Hydrogen fueling locations.
7. Scale of the site plan.

5809.4	Hydrogen mobile fueling areas.	New section	No	No	Proposals May come in for this Section

5809.4 Hydrogen mobile fueling areas. *Hydrogen mobile fueling* shall not occur on public streets, in public ways or inside buildings. Fueling on the roof level of parking structures or other buildings is prohibited unless access to the roof level is available without entering the structure or building.

5809.4.1	Seperation.	New section	No	No	Proposals May come in for this Section

5809.4.1 Separation. The point of connection of the vehicle being fueled shall not take place within the distances specified by NFPA 2 Table 7.2.2.3.2 based on the maximum rated capacity of the *hydrogen mobile fueling* vehicle.

5809.4.2	Sources of ignition.	New section	No	No	Proposals May come in for this Section

5809.4.2 Sources of ignition. Smoking, open flames and other sources of ignition shall be prohibited within 25 feet (7620 mm) of fuel-dispensing activities. Signs prohibiting smoking or open flames within 25 feet (7620 mm) of the vehicle or the point of fueling shall be prominently posted on the *hydrogen mobile fueling* vehicle. The fuel cell of vehicles being fueled shall be shut off during fueling.					
5809.5	Equipment.	New section	No	No	Proposals May come in for this Section
5809.5 Equipment. *Hydrogen mobile fueling* equipment shall comply with Sections 5809.5.1 and 5809.5.2.					
5809.5.1	Dispensing hoses, nozzles and equipment.	New section	No	No	Proposals May come in for this Section
5809.5.1 Dispensing hoses, nozzles and equipment. Dispensing hoses, nozzles and equipment shall comply with NFPA 2.					
5809.5.2	Fire extinguisher.	New section	No	No	Proposals May come in for this Section
5809.5.2 Fire extinguisher. An *approved* portable fire extinguisher complying with Section 906 with a minimum rating of 4-A:80-B:C shall be provided on the *hydrogen mobile fueling* vehicle with signage clearly indicating its location.					
5809.6	Operations.	New section	No	No	Proposals May come in for this Section
5809.6 Operations. *Hydrogen mobile fueling* vehicles or *mobile fueling* trailers shall be operated in accordance with this section and NFPA 2.					
5809.6.1	Attendant.	New section	No	No	Proposals May come in for this Section
5809.6.1 Attendant. *Hydrogen mobile fueling* vehicles or *mobile fueling* trailers shall be attended at all times during fueling operations, with brakes set and warning lights in operation.					
5809.6.2	Emergency access roads.	New section	No	No	Proposals May come in for this Section
5809.6.2 Emergency access roads. *Hydrogen mobile fueling* vehicles shall not obstruct emergency vehicle access roads.					
5809.6.3	Dispensing hose.	New section	No	No	Proposals May come in for this Section
5809.6.3 Dispensing hose. Where equipped, *hydrogen mobile fueling* vehicles or *mobile fueling* trailers shall be positioned in a manner to preclude traffic from driving over the dispensing hose. The dispensing hose shall be properly placed on an *approved* reel or in an *approved* compartment prior to moving the *mobile fueling* vehicle.					
5809.6.4	Safety cones.	New section	No	No	Proposals May come in for this Section
5809.6.4 Safety cones. Safety cones or other visual barriers shall be employed as warning devices to highlight the vehicle fueling area.					
5809.6.5	Vehicle lights.	New section	No	No	Proposals May come in for this Section
5809.6.5 Vehicle lights. The *hydrogen mobile fueling* vehicle or *mobile fueling* trailer flasher lights shall be in operation while dispensing operations are in progress.					
5809.6.6	Nighttime deliveries.	New section	No	No	Proposals May come in for this Section
5809.6.6 Nighttime deliveries. Nighttime deliveries shall be made only in areas deemed adequately lighted by the *fire code official*.					
5809.6.7	Spill reporting.	New section	No	No	Proposals May come in for this Section
5809.6.7 Spill reporting. Releases shall be reported where required by Section 5003.3.1.					
Cost Commentary: This proposal was submitted by the ICC Fire Code Action Committee (FCAC). As a mobile fueling service there is no impact on construction costs.					
59 Flammable Solids					
No Significant Changes					
60 Highly Toxic and Toxic Materials					
No Significant Changes					

61 Liquefied Petroleum Gases
No Significant Changes
62 Organic Peroxides
No Significant Changes
63 Oxidizers, Oxidizing Gases and Oxidizing Crygenic Fluids
No Significant Changes
64 Pyrophoric Materials
No Significant Changes
65 Pryoxylin (Cellulose Nitrate) Plastics
No Significant Changes
66 Unstable (Reactive) Materials
No Significant Changes
67 Water-Reactive Solids and Liquids
No Significant Changes
68 Reserved
69 Reserved
70 Reserved
71 Reserved
72 Reserved
73 Rerved
74 Reserved
75 Reserved
76 Reserved
77 Reserved
78 Reserved
79 Reserved

80 Referenced Standards					
Chapter 80	NFPA	NFPA 13 - amendment to remove the requirements for sprinklers in hydraulic elevator pits.		Yes	NFPA is in the process of revising the 2025 edition of NFPA 13 and will be removing the elevator pit sprinkler requirement.