BCAC IEBC Public Comment Report –

Proposal	Result	Desired	Topic	Notes
		action		
EB46-22	AS	D	Occupied roof as addition	
EB94-22	AM	AS	Occupied roof as COO	EB84-AS is occupied roof as an alteration
EB116-22	AM	AM by PC	Temporary uses for existing buildings	
F188-21			IFC Chapter 41 for temporary heating and cooking	Information for EB116 – new chapter seems to be for tents, which is not part of appendix

EB46-22

Proposed Change as Submitted

Proponents: Stephen Thomas, representing Self (sthomas@coloradocode.net)

2021 International Existing Building Code

Revise as follows:

502.1 General. Additions to any building or structure shall comply with the requirements of the International Building Code for new construction. Alterations to the existing building or structure shall be made to ensure that the existing building or structure together with the addition are not less complying with the provisions of the International Building Code than the existing building or structure was prior to the addition. An existing building together with its additions shall comply with the height and area provisions of Chapter 5 of the International Building Code.

Where a new occupiable roof is added to a building or structure, the occupiable roof shall comply with the provisions of the International Building Code.

CHAPTER 11 ADDITIONS

SECTION 1101 GENERAL

- **1101.1 Scope.** An *addition* to a building or structure shall comply with the International Codes as adopted for new construction without requiring the *existing building* or structure to comply with any requirements of those codes or of these provisions, except as required by this chapter. Where an *addition* impacts the *existing building* or structure, that portion shall comply with this code.
- **1101.2 Creation or extension of nonconformity.** An addition shall not create or extend any nonconformity in the existing building to which the addition is being made with regard to accessibility, structural strength, fire safety, means of egress or the capacity of mechanical, plumbing or electrical systems.
- **1101.3 Other work.** Any *repair* or *alteration* work within an *existing building* to which an *addition* is being made shall comply with the applicable requirements for the work as classified in Chapter 6.
- **1101.4 Enhanced classroom acoustics.** In Group E occupancies, enhanced classroom acoustics shall be provided in all classrooms in the *addition* with a volume of 20,000 cubic feet (565 m³) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.

Add new text as follows:

1101.5 Occupiable Roofs. Where a new occupiable roof is added to a building or structure, the occupiable roof shall comply with the provisions of the International Building Code.

Revise as follows:

1301.2.3 Additions. Additions to existing buildings shall comply with the requirements of the International Building Code or the International Residential Code for new construction. The combined height and area of the existing building and the new addition shall not exceed the height and area allowed by Chapter 5 of the International Building Code. Where a fire wall that complies with Section 706 of the International Building Code is provided between the addition and the existing building, the addition shall be considered a separate building. Where a new occupiable roof is added to a building or structure, the occupiable roof shall comply with the provisions of the International Building Code.

Reason: The purpose of this proposed language is to provide guidance to the use of the code as to what is required when an occupiable roof is added to a building. The proposal would confirm that the occupiable roof will need to comply with the provisions of the International Building Code. This could include the means of egress, accessibility and live load requirements. Many roofs are not designed to support the loads imposed when an occupiable roof is added to a building. This would require that the structure be upgraded to support the additional loads, that a means of egress is provided in accordance with Chapter 10 of the IBC and that an accessible route be provided if one is required by Chapter 11 of the IBC, to just name a few requirements.

The new language has been added to each of the three different options for compliance. The definition of an addition is "An extension or increase in floor area, number of stories, or height of a building or structure". I would argue that the new occupiable roof is an increase in the floor area. It is not an increase in building area, but is increasing the floor area for the purpose egress and accessibility.

Cost Impact: The code change proposal will not increase or decrease the cost of construction

The intent of this proposal is to clarify that a new occupiable roof must comply with the provisions of the building code. The requirements are essentially already in the code, but this change clarifies the requirement.

Public Hearing Results

Committee Action: As Submitted

Committee Reason: There was concern that without this proposed language occupiable roofs can create significant life safety and emergency responder safety hazards. Occupiable roofs can have significant occupant loads as they are often assembly occupancies. This proposal prevents an owner from constructing a building that is not initially classified as a high-rise then once occupied adding an occupiable roof with a high occupant load, which based upon the requirements of the 2024 IBC, would be considered a high-rise building. (Vote: 10-4)

EB46-22

Individual Consideration Agenda

Public Comment NUGENT-1:

Proponents: Mike Nugent, representing Building Code Action Committee (bcac@iccsafe.org) requests Disapprove

Commenter's Reason: We are asking that the membership overturn the committee action of "As Submitted" (as) as the creation of an occupiable space on the roof of a building, aka – occupied roof, cannot be classified as an "addition" without a correlative change to the definition of "addition" and to the very specific language in the IBC that states how occupied roofs are to be regulated when it comes to height and area. Code Change EB46-22 seeks to make changes to the following IEBC Sections:

- · Chapter 5 Prescriptive Compliance Method; Section 502 Additions; Section 502.1 General.
- · CHAPTER 11 Additions; Section 1101 General; Section 1101.5 Occupiable Roofs.
- · Chapter 13 Performance Compliance Methods; Section 1301 General; Section 1301.2 Applicability; NEW Section 1301.2.3 Additions.

The definition of "addition" is currently found in many of the I-Codes, and reads:

[A] ADDITION. An extension or increase in floor area, number of stories or height of a building or structure.

With the corresponding language found in the Commentary to the 2021 IBC & IEBC stating:

This term is used to describe the condition where the floor area, the number of stories or height of an existing building or structure is increased. This term is only applicable to existing buildings, never new ones. This would include <u>additional floor area that is added within an existing building</u>, such as adding a new mezzanine. [See Section 101.4.7 for a reference to the International Existing Building Code® (IEBC®).] (underlining for emphasis)

But what is "floor area?" In Group A there was considerable discussion about what constituted a "floor" in the multiple code changes that were related to the definition of a High-Rise Building in Chapter 2 of the IBC.

Definition in 2021 IBC

[BG] HIGH-RISE BUILDING. A building with an occupied floor located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

With Code Change G15-21 being approved "As Submitted" there was an acknowledgement from the membership that an "occupied floor" is not the same as an "occupied roof." Therefore, "floor area" does not include "roof area," and thus the creation of an occupied roof on top of a roof isn't floor area and isn't included in the definition of "addition." With this understanding, any provisions regarding occupied roofs should not be placed in IEBC Chapters and Sections related to or regulating "Additions."

Definition in 2024 IBC per G15-21

[BG] HIGH-RISE BUILDING. A building with an occupied floor <u>or occupied roof</u> located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

So now an occupied roof may cause a building to be classified as a high-rise building, BUT does an occupied roof constitute an "addition." We contend that without correlations being made between the IBC and IEBC the if the proposed language in this code change is added to the IEBC, it will only cause the 2024 edition of the I-Codes to contain out-and-out contradictory provisions. As the development of the IBC is finished, and there are no code changes to the definition of "addition" in the Group B cycle, the language this code change seeks to add would only create confusion and misapplication.

Other language that will be in the 2024 IBC and support the statements made above include the definitions of FLOOR AREA, GROSS and FLOOR AREA, NET; and the language regarding height and area in Section 503.1.4 (shown below). SPECIFICALLY IBC Section 503.1.4 states

The area of the occupied roofs <u>shall not be included in the building area</u> as regulated by Section 506.An occupied roof <u>shall not be included</u> <u>in the building height</u> or number of stories as regulated by Section 504

HERE IS THE BIG QUESTION - If an occupied roof is NOT included in the building area, how can it be an addition??

We are not saying that the creation of an occupied roof should not be regulated by the IEBC but that of all types of "work" regulated by the IEBC, it is definitely not an "addition."

In addition, the proponents COST IMPACT statement reads:

Cost Impact: The code change proposal <u>will not increase or decrease the cost of construction</u> The intent of this proposal is to clarify that a new occupiable roof must comply with the provisions of the building code. The requirements are essentially already in the code, but this change clarifies the requirement.

We strongly challenge this conclusion. Currently the creation of an occupied roof on the top of Type IIB building with a building height of 75 feet (with highest occupied floor being at 65 feet) would NOT push that building into a high-rise category. But with the new definition of high-rise building in the IBC, and IF the proposed language is successful, this existing building would not have to be retrofitted to comply with ALL of the provisions for a high-rise building in the IBC. The cost of retrofitting a Type IIB building to meet IBC Section 403 would be extremely high – just the changes needed to the HVAC system to meet the smoke removal provisions in IBC 403.4.7 alone would be extremely costly.

[BE] FLOOR AREA, GROSS.

The <u>floor area within the inside perimeter of the exterior walls</u> of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, ramps, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include shafts with no openings or interior courts.

503.1.4 Occupied roofs

. A roof level or portion thereof shall be permitted to be used as an occupied roof provided the occupancy of the roof is an occupancy that is permitted by Table 504.4 for the story immediately below the roof. The area of the occupied roofs shall not be included in the building area as regulated by Section 506. An occupied roof shall not be included in the building height or number of stories as regulated by Section 504, provided that the penthouses and other enclosed rooftop structures comply with Section 1511.

Exceptions:

1. The occupancy located on an occupied roof shall not be limited to the occupancies allowed on the story immediately below the roof where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and occupant notification in accordance with Sections 907.5.2.1 and 907.5.2.3 is provided in the area of the occupied roof. Emergency voice/alarm communication system notification per Section 907.5.2.2 shall also be provided in the area of the occupied roof where such system is required elsewhere in the building.

2. Assembly occupancies shall be permitted on roofs of open parking spaces of Type I or Type II construction, in accordance with the exception to Section 903.2.1.6.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction No change to code.

Public Comment# 3044

EB94-22

Proposed Change as Submitted

Proponents: Mike Nugent, representing Building Code Action Committee (bcac@iccsafe.org)

2021 International Existing Building Code

Revise as follows:

1002.1 Compliance with the building code. Where an *existing building* or part of an *existing building* undergoes a *change of occupancy* to one of the special use or occupancy categories as described in Chapter 4 in the *International Building Code*, the building shall comply with all of the requirements of Chapter 4 of the *International Building Code* applicable to the special use or occupancy.

Exception: Where construction of a new occupiable roof on an existing building results in a high rise building classification, compliance with Section 403 of the *International Building Code* shall not be required. The construction of the occupiable roof shall comply with Section 1011.

Reason: The intent of this proposal is to add an exception for converting portion of roof to an occupiable roof for buildings where the highest floor is below 75' but the roof is about 75'. This will have no impact on existing high-rise buildings.

The exception exempts buildings that were not considered high-rises without the occupied roof from the high-rise package as long as the building is sprinklered, has occupant notification and (if provided) an EVAC system. This is <u>not</u> an exemption from the limitations for occupiable roof so this added occupied roof is <u>not</u> an additional story. The items that would be very difficult or impossible for an existing building to comply with include:

- · Moving the stairways to meet separation requirements
- Changing the structural integrity of the stairways
- Adding a secondary water supply.
- Adding a fire command center

In urban environments the opportunity for people to get outside by using the roof in very important for occupant health and well-being.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2020 and 2021 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at https://www.iccsafe.org/products-and-services/i-codes/code-development/cs/building-code-action-committee-bcac/.

Cost Impact: The code change proposal will decrease the cost of construction

To require compliance with the high-rise provisions in Section 403 of the IBC simply due to the later addition of an occupiable roof would be very expensive. This proposal prevents the need for costly and complex upgrades that would be required.

EB94-22

Public Hearing Results

Committee Action: As Modified

Committee Modification:

1002.1 Compliance with the building code. Where an *existing building* or part of an *existing building* undergoes a *change of occupancy* to one of the special use or occupancy categories as described in Chapter 4 in the *International Building Code*, the building shall comply with all of the requirements of Chapter 4 of the *International Building Code* applicable to the special use or occupancy.

Exception: Where construction of a new occupiable roof on an existing building results in a high rise building classification <u>and the occupiable</u> roof has an occupant load less than 50, compliance with Section 403 of the *International Building Code* shall not be required. The construction of

the occupiable roof shall comply with Section 1011.

Committee Reason: This proposal with the modification was seen as a reasonable compromise to not require compliance with IBC Section 403 retroactively. The modification places a occupant limit of 50 for occupiable roofs. It was felt that larger occupant loads pose a higher risk and should trigger more restrictive requirements. (Vote: 8-6)

EB94-22

Individual Consideration Agenda

Public Comment NUGENT-1:

Proponents: Mike Nugent, representing Building Code Action Committee (bcac@iccsafe.org) requests As Submitted

Commenter's Reason: Sarah to provide reason for AS

Public Comment# 3045

EB116-22

Proposed Change as Submitted

Proponents: Mike Nugent, representing Building Code Action Committee (bcac@iccsafe.org); John Williams, representing Committee on Healthcare (ahc@iccsafe.org); Robert Marshall, representing FCAC (fcac@iccsafe.org)

2021 International Existing Building Code

Add new text as follows:

User notes. About this appendix: The primary purpose for Appendix E is to provide guidance for designers, engineers, architects, fire and building code officials to allow temporary emergency uses of existing buildings or temporary structures with respect to the minimum code requirements. This appendix is intended to serve as that template or checklist for use during an emergency that references the relevant code requirement of concerns.

APPENDIX E TEMPORARY EMERGENCY STRUCTURES AND EMERGENCY USES

SECTION E101 GENERAL

E101.1 Scope. The provisions of this appendix shall apply to the use, construction, installation, alteration, relocation and location of existing buildings or temporary structures and any service utilities or systems that serve such existing buildings or temporary structures during or based on the response to the emergency."

E101.1.1 Objectives. The objective of this Appendix is to provide flexibility for the code official to permit the temporary uses of existing buildings or temporary structures during an emergency to address unusual circumstances that temporarily overwhelms response capabilities of an entity while maintaining the level of safety intended by the code.

E101.1.2 Temporary use. Where temporary uses during emergencies exceed 180 days, judgement shall be used by the code official to allow for temporary uses and conditions to continue for the duration of the emergency based on the needs of the emergency. The code official is authorized to grant extensions for demonstrated cause.

SECTION E102 DEFINITIONS

Add new definition as follows:

EMERGENCY. Any event declared by local, state, or federal entities that temporarily overwhelms response capabilities, and that require the temporary suspension or modification of regulations, codes, or standards to facilitate response to such an event.

TEMPORARY STRUCTURES. That which is built, constructed or erected for a period of less than 180 days.

TEMPORARY USE. An activity or practice that is established at a designated location for a period of less than 180 days. Uses include, but are not limited to, those functional designations listed within the occupancy group descriptions in Section 302.1 of the International Building Code.

Add new text as follows:

SECTION E103 SUBMITTAL DOCUMENTS

E103.1 General. Submittal documents shall be of sufficient clarity to indicate the location, nature and extent of the work or use proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the code official.

SECTION E104 CONFORMANCE

E104.1 Conformance. Temporary use of existing buildings and temporary structures shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation, and sanitary requirements of this code as necessary to provide a reasonable level of safety, health, and general welfare as determined by the code official. Tents and other membrane structures shall comply with Sections 3102 and 3103 of the International Building Code.

E104.2 Changes over time. As an emergency evolves, submittal documents shall be submitted to demonstrate that the temporary uses of the existing buildings or temporary structures are in compliance with the requirements of the *International Building Code*.

SECTION E105 PERMITS

- E105.1 Emergency permits. In an emergency situation, where temporary structures are erected or an existing building undergoes a temporary change of use or occupancy, the *permit* application shall be submitted as soon as practicable to the *code official*. Permits shall be required in accordance with Sections 105.1.1 through 105.1.3.
- 105.1.1 Temporary structures, other than tents and membrane structures. Temporary structures, other than tents and other membrane structures, that occupy an area greater than 120 square feet (11.16 m²), shall not be constructed, erected, or relocated for any purpose without obtaining a permit from the code official.
- E105.1.2 Tents and membrane structures. Tents and membrane structures shall be permitted in accordance with the International Fire Code.
- E105.1.3 Existing buildings. An existing buildings shall not repurposed for a purpose it was not designed for without obtaining a permit from the code official for the change of use or occupancy.

SECTION E106 GENERAL STANDARDS FOR EMERGENCY STRUCTURES

- **E106.1** Scope. The provisions of Sections E106.2 through E106.7 shall apply to all existing structure being repurposed or temporary structures constructed, erected or relocated to support the response to an emergency.
- **E106.2 Intent.** The intent of this section is to provide a base level of safety in a structure built or repurposed for emergency use.
- E106.3 Change of use or occupancy. Existing buildings used in a way that was not originally intended by occupancy class or use shall be allowed without formally changing the occupancy class. The previous occupancy class shall be restored upon the conclusion of the emergency. Where the temporary live load of the floor is more than that required by Section 1607 of the International Building Code for the original use, the area designated for the temporary live load shall be posted with placards for the approved live load.
- E106.4 Fire Safety Provisions. Determination of the fire safety requirements by the code official shall be in accordance with Section E106.4.1 through E106.4.5 in order to make determinations of safe conditions rather than strict adherence to the provisions of the International Fire Code.
- E106.4.1 Fire safety and evacuation plans. Fire safety and evacuation plans shall be provided in accordance with Section 403 and 404 of the International Fire Code. Submittal documents shall be updated where there are any physical changes to the layout of the structure.
- E106.4.2 Training and practice drills. Training of staff and practice drills shall comply with Section 405 and 406 of the *International Fire Code*. Structures in place for longer than 30 days shall conduct evacuation drill in accordance with Section 405.3 of the International Fire Code based on the temporary use.
- E106.4.3 Fire Protection. An evaluation shall be performed to decide on fire protection needed utilizing NFPA 550.
- E106.4.4 Emergency Access. Emergency vehicle access roads shall be approved by the fire code official.
- E106.4.5 Fire Watch. A fire watch in accordance with Section 403.11.1 of the *International Fire Code* shall be permitted to be provided in lieu of other fire protection systems.
- E106.5 Means of Egress. Means of egress shall comply with Section 1011.5 in addition to Sections E106.5.1 through E106.5.3.
 - Exception: In Group I-2 occupancies, in areas where corridors are used for movement of care recipients in beds, the clear width of ramps and corridors shall be not less than 48 inches (1219 mm).
- E106.5.1 Exit Discharge. Exit discharge shall provide access to a public way, or to a safe dispersal area in accordance with Section 1028.5 of the International Building Code
- E106.5.2 Means of Egress Lighting. The means of egress shall be illuminated when the space is occupied.

Exception: Sleeping areas.

- E106.5.3 Exit Signs. Exit signs shall be provided where the means of egress is not readily identifiable. Exit signs shall be permitted to be illuminated by the lighting provided in the structure.
- E106.6 Accessibility. A facility that is constructed to be accessible shall be maintained accessible during occupancy.
- E106.7 Temporary connection. The code official shall have the authority to authorize the temporary connection of the building or system to the utility, the source of energy, fuel, or power, or the water system or sewer system in accordance with Section 111. Water closets and lavatories shall

be either permanent plumbing fixtures installed within the structure, or temporary water closets or lavatories, such as chemical toilets or other means approved by the code official.

E106.7.1 Portable heating and cooling equipment. Portable heating and cooling equipment shall be used in accordance with their listing, and manufacturer's instructions.

SECTION E107 USE OF SPECIFIC STANDARDS

- E107.1 Increased occupant load. Allowing for additional occupants in existing building shall comply with Section E107.1.1 through E107.1.3.
- **E107.1.1 Authorization.** The code official is authorized to allow for an increase in the number of occupants or a change of use in a building or portion of a building during an emergency.
- E107.1.2 Maintenance of the means of egress. The existing a means of egress shall be maintained.
- E107.1.3 Sleeping areas. Where a space is used for sleeping purposes, the space shall be equipped with smoke alarms in accordance with Sections 907.2.6.2 and 907.2.11 if the International Fire Codeor be provided with a fire watch in accordance with Section 403.11.1 of the International Fire Code. Carbon monoxide detectors shall be installed in accordance with Section 915 of the International Fire Code where the structure uses any fossil fuel or wood burning appliances.
- E107.2 Temporary healthcare facilities. Temporary health care facilities shall comply with Section E107.2.1 and E107.2.2.
- <u>E107.2.1</u> <u>General.</u> Temporary health care facilities shall be erected, maintained and operated to minimize the possibility of a fire emergency requiring the evacuation of occupants.
- E107.2.2 Membrane structures under projections. Membrane structures of less than 100 square feet (9.3 m2) shall be permitted tobe placed under projections of a permanent building provided the permanent building is protected with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
- <u>E107.3</u> <u>Use of tiny houses or manufactured homes.</u> <u>Tiny houses or manufactured homes used for temporary housing shall comply with Section E107.3.1 through E107.3.5.</u>
- E107.3.1 Fire separation distances. Tiny houses or manufactured homes shall be separated by not less than 5 feet (1524 mm) between structures.
- <u>E107.3.2 Fire breaks</u>. Tiny houses and manufactured homesshall not be located in groups of more than 20 units. Fire breaks of at least 20 feet (6096 mm) shall be provided between each group.
- **E107.3.3** Smoke alarms. Tiny houses and manufactured homes used for sleeping purposes shall be equipped with a smoke alarm complying with Section 907.2.11. of the *International Fire Code*. Smoke detectors are not required to be hard wired.
- E107.3.4 Carbon monoxide detectors. Carbon monoxide detectors shall be installed in accordance with Section 915, where the tiny house or manufactured homes uses any fossil fuel or wood burning appliances.
- E107.3.5 Structures located in a wildland urban interface zone. Tiny houses and manufactured homes that a relocated in a wildland urban interface area shall be provided with defensible space in accordance with the Section 603 of the International Wildland Urban Interface Code.
- E107.4 Tents and membrane structures used as sleeping accommodations. Tents or membrane structures used as sleeping accommodations shall comply with the same requirements as tiny houses in Section E107.3.1 through E107.3.5 and Chapter 31 of the International Fire Code.

SECTION E108 REFERENCED STANDARDS

E108.1 General. See Table E108.1 for standards that are referenced in various sections of this appendix. Standards are listed by the standard identification with the effective date, standard title, and the section or sections of this appendix referenced in the standard.

TABLE E108.1 REFERENCED STANDARDS

STANDARD ACRONYM	STANDARD NAME	SECTION REFERENCED HEREIN
NFPA 550-2017	Guide to the Fire Safety Concepts Tree	E106.5.3

Reason: This appendix was originally submitted to IBC as G201-21. Since this proposal extensively dealt with temporary use of existing buildings during an emergency, it was felt it was better suited to IEBC. We believe we have addressed concerns that we learned about during the testimony on the previous proposal and have addressed them in this proposal.

The intent of this appendix is to provide guidance when there are emergencies that exceed the emergencies that the community has planned for. Response must be immediate, so there is not time for the typical plan review and inspection. Existing buildings will be used for occupancies other than they were intended, and temporary structures may need to be erected or brought in to address immediate needs. Recent examples were the housing needs due to mass evacuations during the west coast fires and how hard Covid hit many community health care systems. The user note for this Appendix emphasizes that this is a guidance document for emergencies that exceed pre-planned emergency responses.

The code officials are the people with the experience and knowledge base to identify what can be done and still maintain public health and safety.

This idea is emphasized in Section E101.1.2 and the definition of emergency for this appendix, as well as the modification to the title.

The following revisions were incorporated based on the input received during the hearing:

- The user note states this is a guidance appendix. The idea is used in IFC appendix E and G.
- The title was modified for clarity.
- E101.1.2 better code language
- Definition for emergency better code language
- E104.1 was modified to mirror Section 3103.1. This is already permitted by the code. E104.1 has an added sentence clarify that tents and other membrane structures are required to comply with Section 3102 and 3103. These sections also incorporate Chapter 16.
- E104.2 re-evaluation is not always dependent on additional resources it could be people being able to return or moving to family.
- E106.1 This change clarifies that this appendix is applicable to what is happening due to the emergency not other construction that happens to be occurring at the same time that is not related.
- E106.3 this modification allows for temporary uses with heavier loading such as storage of emergency supplies in an office building where the safe limits are addressed. The change to E104.1 and E106.3 are to address concerns raised by structural engineers about loads.
- E106.5 An exception was created to clarify that in I-2 Occupancies, corridors can be 48" wide in existing buildings. This is consistent with IEBC Section 804.3 for Level 2 Alterations.
- E107.1 the modification removed 'temporary waives for'. The criteria was not related to waivers.
- E107.2.2 better code language
- E107.3 use defined term for manufactured homes.
- E107.4 change 'tiny homes' to 'tiny houses' for consistent terminology
- E107.5 and NFPA 1660 have been removed as they apply to previously anticipated emergencies. This appendix will only address where these plans are exceeded.

This proposal is submitted by the ICC Building Code Action Committee (BCAC), ICC Fire Code Action Committee (FCAC) and the Committee on Healthcare (CHC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2020 and 2021 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at https://www.iccsafe.org/products-and-services/i-codes/code-development/cs/building-code-action-committee-bcac/. The FCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance assigned

International Codes with regard to fire and life safety in new and existing buildings and facilities as well as the protection of life and property in wildland urban interface areas. In 2020 and 2021 the Fire-CAC held multiple virtual meetings that were open to any interested party. In addition, there were numerous virtual specific working group meetings that were also open to any interested parties, to develop, discuss and debate the proposed changes. Related documentation and reports are posted on the FCAC website at: https://www.iccsafe.org/products-and-services/i-codes/code-development/cs/fire-code-action-committee-fcac/

The CHC was established by the ICC Board to evaluate and assess contemporary code issues relating to healthcare facilities. This is a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. In 2020 and 2021 of the committees as well as any interested parties, to discuss and debate the proposed changes. Information on the CHC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CHC effort can be downloaded from the CHC website at https://www.iccsafe.org/products-and-services/i-codes/code-development/cs/icc-committee-on-healthcare/.

Cost Impact: The code change proposal will not increase or decrease the cost of construction

This appendix is intended to provide a tool to jurisdictions and is not applicable unless adopted. Currently, no formal code requirements provide guidance on how to address. This will provide a framework to make enforcement more consistent and aligned with the requirements of the ICC codes. It was not intended to make compliance more expensive but instead to provide a resource for these emergency situations. These options mirror established ICC codes sections and standards.

EB116-22

Public Hearing Results

Committee Action: As Modified

Committee Modification:

User notes.

About this appendix: The primary purpose for Appendix E is to provide guidance for designers, engineers, architects, fire and building code officials to allow temporary emergency uses of existing buildings or temporary structures with respect to the minimum code requirements. This appendix is intended to serve as that template or checklist for use during an emergency that references the relevant code requirement of concerns.

APPENDIX E TEMPORARY EMERGENCY STRUCTURES AND EMERGENCY USES

E101.1 Scope. The provisions of this appendix shall apply to the use, construction, installation, alteration, relocation and location of existing buildings or temporary structures and any service utilities or systems that serve such existing buildings or temporary structures during or based on the response to the emergency."

E101.1.1 Objectives. The objective of this Appendix is to provide flexibility for the code official to permit the temporary uses of existing buildings extemporary structures during an emergency to address unusual circumstances that temporarily overwhelms response capabilities of an entity while maintaining the level of safety intended by the code.

TEMPORARY STRUCTURES. That which is built, constructed or erected for a period of less than 180 days.

E104.1 Conformance. Temporary use of existing buildings and temporary structures shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation, and sanitary requirements of this code as necessary to provide a reasonable level of safety, health, and general welfare as determined by the code official. Tents and other membrane structures shall comply with Sections 3102 and 3103 of the *International Building Code*.

E104.2 Changes over time. As an emergency evolves, submittal documents shall be submitted to demonstrate that the temporary uses of the existing buildings or temporary structures are in compliance with the requirements of the *International Existing Building Code*.

E105.1 Emergency permits. In an emergency situation, where temporary structures are erected or an existing building undergoes a temporary change of use or occupancy, the *permit* application shall be submitted as soon as practicable to the *code official*. Permits shall be required in accordance with Sections 105.1.1 through 105.1.3.

105.1.1Temporary structures, other than tents and membrane structures. Temporary structures, other than tents and other membrane structures, that occupy an area greater than 120 square feet (11.16 m²), shall not be constructed, erected, or relocated for any purpose without obtaining a permit from the code official.

E105.1.2Tents and membrane structures. Tents and membrane structures shall be permitted in accordance with the International Fire Code.

E105.1.3 Existing buildings Change of use or occupancy. An existing buildings shall not repurposed for a purpose it was not designed for without obtaining a permit from the code official for the change of use or occupancy.

SECTION E106

GENERAL STANDARDS FOR EMERGENCY STRUCTURES USES

E106.1 Scope. The provisions of Sections E106.2 through E106.7 shall apply to all existing structure <u>s</u> being repurposed <u>or temporary and to</u> all structures constructed, erected or relocated to support the response to an emergency.

E106.2 Intent. The intent of this section is to provide a base level of safety in a structure built or repurposed for emergency use. E106.7.1Portable heating, and cooking equipment.

Portable heating, and cooking equipment shall be used in accordance with Chapter 41 of the International Fire Code, their listing, and manufacturer's instructions.

E107.1.3Sleeping areas.

Where a space is used for sleeping purposes, the space shall be equipped with smoke alarms in accordance with Sections 907.2.6.2 and 907.2.11 if the International Fire Code or be provided with a fire watch in accordance with Section 403.11.1 of the International Fire Code. Carbon monoxide alarms detectors shall be installed in accordance with Section 915 of the International Fire Code where the structure uses any fossil fuel or wood burning appliances.

E107.3.3Smoke alarms.

Tiny houses and manufactured homes used for sleeping purposes shall be equipped with a smoke alarm complying with Section 907.2.11. of the *International Fire Code*. Smoke <u>alarms</u> detectors are not required to be hard wired.

E107.3.4Carbon monoxide alarms detectors.

Carbon monoxide <u>alarm detectors</u> shall be installed in accordance with Section 915, where the tiny house or manufactured homes uses any fossil fuel or wood burning appliances.

E107.4 Tents and membrane structures used as sleeping accommodations. Tents or membrane structures used as sleeping accommodations shall comply with the same requirements as tiny houses in Section E107.3.1 through E107.3.5 and Chapter 31 of the International Fire Gode.

Committee Reason: The proposal provides a solid framework for code officials to deal with emergency uses of existing buildings for uses they were not specifically approved such as what was seen during COVID. There was some concern that the term "emergency" may get used to push the limited of code compliance. There was a suggestion that the applicability of the new term CO source as approved for the IFC and IBC with regard to Section E107.1.3 be addressed as it may affect the application of this appendix. Additionally, it was suggested that Sections E101.1.1, E104.1 and E106.2 be reviewed to make more consistent addressing intent. Some clarity was requested as how the restoration to the original occupancy is intended to be addressed. Finally, it was suggested that the emergency permitting procedures in the base code and the relationship to this appendix be reviewed. The modifications address the following issues.

Temporary structures versus temporary uses. The language in the original proposal was revised to remove anything that should comply as a temporary structure in the IBC and IFC. The focus of this proposal is only on temporary emergency uses.

Alarm Terminology. The correct terminology of "alarm" versus "detector" was revised in several sections to address that "detectors" are associated with a system. Alarms are not monitored but instead, where multiple alarms are required, are simply interconnected. These revisions are found in E107.1, E107.3.3 and E107.3.4.

Cooking and heating. Proper reference to the newly created chapter dealing with temporary heating and cooking in Chapter 41 of the 2024 IFC is referenced in Section 106.2 to create proper correlation between the documents.

(Vote: 14-0)

EB116-22

Individual Consideration Agenda

Public Comment NUGENT-1:

IEBC: , APPENDIX E, SECTION E101, E101.1, E101.1.1, E101.1.2, SECTION E102, SECTION 202, SECTION E103, E103.1, SECTION E104, E104.1, E104.2, SECTION E105, E105.1, E105.1.1, SECTION E106, E106.1, E106.2, E106.3, E106.4, E106.4.1, E106.4.2, E106.4.3, E106.4.4, E106.4.5, E106.5.1, E106.5.2, E106.5.3, E106.5.3, E106.6, E106.7, E106.7.1, SECTION E107, E107.1, E107.1.1, E107.1.2, E107.1.3, E107.2, E107.2.1, E107.2.2, E107.3, E107.3.1, E107.3.2, E107.3.3, E107.3.4, E107.3.5, SECTION E108, E108.1, TABLE E108.1

Proponents: Mike Nugent, representing Building Code Action Committee (bcac@iccsafe.org) requests As Modified by Public Comment

Modify as follows:

2021 International Existing Building Code

User notes. About this appendix: The primary purpose for Appendix E is to provide guidance for designers, engineers, architects, fire and building code officials to allow temporary emergency uses of existing buildings with respect to the minimum code requirements. This appendix is intended to serve as that template or checklist for use during an emergency that references the relevant code requirement of concerns.

APPENDIX E TEMPORARY EMERGENCY USES

SECTION E101 GENERAL

- **E101.1 Scope.** The provisions of this appendix shall apply to the use, installation, alteration, relocation and location of existing buildings and any service utilities or systems that serve such existing buildings during or based on the response to the emergency."
- **E101.1.1 Objectives.** The objective of this Appendix is to provide flexibility for the code official to permit the temporary uses of existing buildings during an emergency to address unusual circumstances that temporarily overwhelms response capabilities of an entity while maintaining the level of safety intended by the code.
- **E101.1.2 Temporary use.** Where temporary uses during emergencies exceed 180 days, judgement shall be used by the code official to allow for temporary uses and conditions to continue for the duration of the emergency based on the needs of the emergency. The code official is authorized to grant extensions for demonstrated cause.

SECTION E102 DEFINITIONS

EMERGENCY. Any event declared by local, state, or federal entities that temporarily overwhelms response capabilities, and that require the temporary suspension or modification of regulations, codes, or standards to facilitate response to such an event.

TEMPORARY USE. An activity or practice that is established at a designated location for a period of less than 180 days. Uses include, but are not limited to, those functional designations listed within the occupancy group descriptions in Section 302.1 of the International Building Code.

SECTION E103 SUBMITTAL DOCUMENTS

E103.1 General. Submittal documents shall be of sufficient clarity to indicate the location, nature and extent of the work or use proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the code official.

SECTION E104 CONFORMANCE

- **E104.1 Conformance.** Temporary use of existing buildings shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation, and sanitary requirements of this code as necessary to provide a reasonable level of safety, health, and general welfare as determined by the code official.
- **E104.2 Changes over time.** As an emergency evolves, submittal documents shall be submitted to demonstrate that the temporary uses of the existing buildings are in compliance with the requirements of the *International Existing Building Code*.

SECTION E105 PERMITS

- **E105.1 Emergency permits.** In an emergency situation, where an existing building undergoes a temporary change of use or occupancy, the *permit* application shall be submitted as soon as practicable to the *code official*. Permits shall be required in accordance with Sections 105.1.1 through 105.1.3.
- E105.1.1 Change of use or occupancy. An existing building shall not be repurposed for a purpose it was not designed for without obtaining a permit from the code official for the change of use or occupancy.

SECTION E106

GENERAL STANDARDS FOR EMERGENCY USES

- **E106.1 Scope.** The provisions of Sections E106.2 through E106.7 shall apply to all existing structures being repurposed and to all structures relocated to support the response to an emergency.
- E106.2 Intent. The intent of this section is to provide a base reasonable level of safety in a structure repurposed for emergency use.
- **E106.3 Change of use or occupancy.** Existing buildings used in a way that was not originally intended by the occupancy class or use shall be allowed without formally changing the occupancy class. The previous occupancy and use class shall be restored resume upon the conclusion of the emergency. Where the temporary live load of the floor is more than that required by Section 1607 of the International Building Code for the original use, the area designated for the temporary live load shall be posted with placards for the approved live load.
- **E106.4 Fire Safety Provisions.** Determination of the fire safety requirements by the code official shall be in accordance with Section E106.4.1 through E106.4.5 in order to make determinations of safe conditions rather than strict adherence to the provisions of the International Fire Code.
- **E106.4.1 Fire safety and evacuation plans.** Fire safety and evacuation plans shall be provided in accordance with Section 403 and 404 of the *International Fire Code.* Submittal documents shall be updated where there are any physical changes to the layout of the structure.
- **E106.4.2 Training and practice drills.** Training of staff and practice drills shall comply with Section 405 and 406 of the *International Fire Code*. Structures in place for longer than 30 days shall conduct evacuation drill in accordance with Section 405.3 of the International Fire Code based on the temporary use.
- E106.4.3 Fire Protection. An evaluation shall be performed to decide on fire protection needed utilizing NFPA 550.
- E106.4.4 Emergency Access. Emergency vehicle access roads shall be approved by the fire code official.
- **E106.4.5 Fire Watch.** A fire watch in accordance with Section 403.11.1 of the *International Fire Code* shall be permitted to be provided in lieu of other fire protection systems.
- E106.5 Means of Egress. Means of egress shall comply with Section 1011.5 in addition to Sections E106.5.1 through E106.5.3.
 - **Exception:** In Group I-2 occupancies, in areas where corridors are used for movement of care recipients in beds, the clear width of ramps and corridors shall be not less than 48 inches (1219 mm).
- **E106.5.1 Exit Discharge.** Exit discharge shall provide access to a public way, or to a safe dispersal area in accordance with Section 1028.5 of the *International Building Code*
- E106.5.2 Means of Egress Lighting. The means of egress shall be illuminated when the space is occupied.

Exception: Sleeping areas.

- **E106.5.3 Exit Signs.** Exit signs shall be provided where the means of egress is not readily identifiable. Exit signs shall be permitted to be illuminated by the lighting provided in the structure.
- E106.6 Accessibility. A facility that is constructed to be accessible shall be maintained accessible during occupancy.
- **E106.7 Temporary connection.** The code official shall have the authority to authorize the temporary connection of the building or system to the utility, the source of energy, fuel, or power, or the water system or sewer system in accordance with Section 111. Water closets and lavatories shall be either permanent plumbing fixtures installed within the structure, or temporary water closets or lavatories, such as chemical toilets or other means approved by the code official.
- **E106.7.1 Portable heating, cooling and cooking equipment.** Portable heating, cooling, and cooking equipment shall be used in accordance with Chapter 41 of the International Fire Code, their listing, and manufacturer's instructions.

SECTION E107 USE OF SPECIFIC STANDARDS

- E107.1 Increased occupant load. Allowing for additional occupants in existing building shall comply with Section E107.1.1 through E107.1.3.
- **E107.1.1 Authorization.** The code official is authorized to allow for an increase in the number of occupants or a change of use in a building or portion of a building during an emergency.
- E107.1.2 Maintenance of the means of egress. The existing a means of egress shall be maintained.
- **E107.1.3 Sleeping areas.** Where a space is used for sleeping purposes, the space shall be equipped with smoke alarms in accordance with Sections 907.2.6.2 and 907.2.11 if the International Fire Code or be provided with a fire watch in accordance with Section 403.11.1 of the International Fire Code. Carbon monoxide alarms shall be installed in accordance with Section 915 of the International Fire Code where the structure uses any fossil fuel or wood burning appliances.

- E107.2 Temporary healthcare facilities. Temporary health care facilities shall comply with Section E107.2.1 and E107.2.2.
- **E107.2.1 General.** Temporary health care facilities shall be erected, maintained and operated to minimize the possibility of a fire emergency requiring the evacuation of occupants.
- **E107.2.2 Membrane structures under projections.** Membrane structures of less than 100 square feet (9.3 m2) shall be permitted tobe placed under projections of a permanent building provided the permanent building is protected with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
- **E107.3 Use of tiny houses or manufactured homes.** Tiny houses or manufactured homes used for temporary housing shall comply with Section E107.3.1 through E107.3.5.
- **E107.3.1 Fire separation distances.** Tiny houses or manufactured homes shall be separated by not less than 5 feet (1524 mm) between structures.
- **E107.3.2** Fire breaks. Tiny houses and manufactured homesshall not be located in groups of more than 20 units. Fire breaks of at least 20 feet (6096 mm) shall be provided between each group.
- **E107.3.3 Smoke alarms.** Tiny houses and manufactured homes used for sleeping purposes shall be equipped with a smoke alarm complying with Section 907.2.11. of the *International Fire Code*. Smoke alarms are not required to be hard wired.
- **E107.3.4 Carbon monoxide alarms.** Carbon monoxide alarms shall be installed in accordance with Section 915, where the tiny house or manufactured homes uses any fossil fuel or wood burning appliances.
- **E107.3.5 Structures located in a wildland urban interface zone.** Tiny houses and manufactured homes that a relocated in a wildland urban interface area shall be provided with defensible space in accordance with the Section 603 of the International Wildland Urban Interface Code.

SECTION E108 REFERENCED STANDARDS

E108.1 General. See Table E108.1for standards that are referenced in various sections of this appendix. Standards are listed by the standard identification with the effective date, standard title, and the section or sections of this appendix referenced in the standard.

TABLE E108.1 REFERENCED STANDARDS

STANDARD ACRONYM	STANDARD NAME	SECTION REFERENCED HEREIN
NFPA 550-2017	Guide to the Fire Safety Concepts Tree	E106.5.3

Commenter's Reason: This proposal was supported overall, however there were suggestions from the committee and proponents that BCAC wishes to address.

The complete proposal is shown in the public comment so that everyone can see the modified proposal in total.

E105.1 and E105.1.1 - There was a floor modification to delete the references to tents and membrane structures. This floor modification deleted two of the three items in Section 105.1. Therefore, the reference to the three subsections needs to be deleted. The text in E105.1.1 is not needed, because a planned change of occupancy is currently addressed in the IEBC.

There was a suggestion to revise this section to be consistent with IEBC Section 105.2.1, however, since how fast someone could be prepared to submit a permit, or the building department ready to operate as usual depends a great deal on the extent of the emergency. Therefore, 'as soon as practicable' is a reasonable allowance.

E106.2 - A committee member suggested that Sections E104.1 and E106.2 use the same terminology for safety, thus the modification proposed to E106.2.E106.3 - The requirements allow for a temporary change of occupancy or use - 'class' is not a term used in the code, so it has been deleted.

E106.7.1 - The new IFC Chapter 41 (F188-21 AS) deals with temporary heating and cooking, but not cooling. Therefore a general reference to the IFC is more appropriate than a specific reference to Chapter 41.

There was a suggestion that the definition of 'emergency' was too broad. However, this is an appendix intended for guidance. Therefore, BCAC felt that this definition should be open to address any emergency that the community faces. No one thought we would ever have to deal with such large wildfires or Covid over the last couple of years. We do not know what we will face.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction

This appendix is intended to provide a tool to jurisdictions and is not applicable unless adopted. Currently, no formal code requirements provide guidance on how to address. This will provide a framework to make enforcement more consistent and aligned with the requirements of the ICC codes. It was not intended to make compliance more expensive but instead to provide a resource for these emergency situations. These options mirror established ICC codes sections and standards.

Public Comment# 3043

F188-21

IFC: 105.5.53 (New), 105.5.54 (New), 105.5.55 (New), CHAPTER 41 (New), 4101.1 (New), 4101.2 (New), 4101.3 (New), 4101.4 (New), 4101.4 (New), 4101.4 (New), 4101.4 (New), 4101.4 (New), 4101.4 (New), 4101.5 (New), 4101.5 (New), 4101.6 (New), 4101.6 (New), 4101.7 (New), 4101.8 (New), 4101.9 (New), 4101.10 (New), 4101.10 (New), SECTION 4102 (New), 603.9.1, 603.9.4, 603.9.2, 603.9.3, 603.9.4, 603.9.5, SECTION 4103 (New), 605.5, 605.5.1, 605.5.2, 605.5.2.2, 605.5.2.2, 605.5.2.2, 605.5.2.2, 605.5.2.2, 605.5.2.2, 605.5.2.2, 605.5.2.2, 605.5.2.2, 605.5.2.2, 605.5.2.2, 605.5.2.2, 605.5.2.3, 605.5.2

Proponents: Timothy Spears, South San Joaquin County Fire Authority, representing California Fire Chiefs Association (tim.spears@cityoftracy.org)

2021 International Fire Code

Add new text as follows:

105.5.3 Temporary heating or cooking in tents or membrane structures. An operational permit is required to operate temporary heating or cooking equipment within tents or membrane structures.

105.5.54 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

105.5.55 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.

CHAPTER 41 TEMPORARY HEATING AND COOKING OPERATIONS

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.

Exception: Temporary heating devices used in the course of construction, alteration and demolition of structures shall comply with Section 3304.

Revise as follows:

4101.2 Permits. Operational permits shall be obtained as set forth in Section 105.5.

Add new text as follows:

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. 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. Temporary heating and cooking operations shall be in accordance with applicable local wildfire risk area regulations

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. 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.

Revise as follows:

3107.12.7 4101.5 Electrical heating and cooking equipment. Electrical cooking and heating equipment shall comply with NFPA 70and this chapter.

3107.13-4101.6 LP-gas. The storage, handling and use of LP-gas and LP-gas equipment shall be in accordance with Sections-3107.13.1 through 3107.13.3. 4101.6.1 through 4101.6.4

3107.13.1 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.

3107.13.2 4101.6.2 Location of containers. LP-gas containers and tanks shall be located outside in accordance with Table 6104.3. Pressure relief devices shall be pointed away from the tent or membrane structure. any building or structure and shall be in accordance with Chapter 61.

3107.13.3 4101.6.3 Protection and security. Portable LP-gas containers, tanks, piping, valves and fittings that are located outside and are being used to fuel equipment inside atent or membrane structure shall be adequately protected to prevent tampering, damage by vehicles or other hazards and shall be located in an approved location. Portable LP-gas containers shall be secured to prevent unauthorized movement.

Add new text as follows:

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. Oil-fired cooking and heating equipment shall comply with Section 605 and this chapter.

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 Operations shall be conducted in a well-ventilated area, at a minimum of 10 feet from any building or structure.

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 non-combustible 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

Revise as follows:

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 or cause to be abated or corrected such unsafe operations or conditions either by removal, repair, rehabilitation, disposal or other approved corrective action in compliance with this code.

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.

Add new text as follows:

SECTION 4102 PORTABLE ELECTRICAL HEATING APPLIANCES

Revise as follows:

603.9.1 4102.1.1 Listed and labeled. Only listed and labeled portable, electric space heaters shall be used.

603.9-4102.1 Portable, electric space heaters. Where not prohibited by other sections of this code, portable, electric space heaters shall be permitted to be used in all occupancies in accordance with Sections 603.9.1 through 603.9.5.

603.9.2 4102.1.2 Power supply. Portable, electric space heaters shall be plugged directly into an approved receptacle.

603.9.3 4102.1.3 Extension cords. Portable, electric space heaters shall not be plugged into extension cords.

603.9.4. 4102.1.4 Prohibited areas. Portable, electric space heaters shall not be operated within 3 feet (914 mm) of any combustible materials. Portable, electric space heaters shall be operated only in locations for which they are *listed*.

603.9.5 4102.1.5 Group I-2 occupancies and ambulatory care facilities. Where used in Group I-2 and ambulatory care facilities, portable, electric space heaters shall be limited to those having a heating element that cannot exceed a temperature of 212°F (100°C), and such heaters shall only be used in nonsleeping staff and employee areas.

Add new text as follows:

SECTION 4103 PORTABLE FUEL-FIRED HEATING APPLIANCES

Revise as follows:

605.5 4103.1 Portable unvented heaters. Portable unvented fuel-fired heating equipment shall be prohibited in occupancies in Groups A, E, I, R-1, R-2, R-3 and R-4 and ambulatory care facilities.

Exceptions:

- 1. Portable unvented fuel-fired heaters *listed* in accordance with UL 647 are permitted to be used in one- and two-family dwellings, where operated and maintained in accordance with the manufacturer's instructions.
- 2. Portable outdoor gas-fired heating appliances in accordance with Section 605.5.2 4103.1.2

605.5.1 4103.1.1 Prohibited locations. Unvented fuel-fired heating equipment shall not be located in, or obtain combustion air from, any of the following rooms or spaces: sleeping rooms, bathrooms, toilet rooms or storage closets.

605.5.2 4103.1.2 Portable outdoor gas-fired heating appliances. Portable gas-fired heating appliances located outdoors shall be in accordance with Sections 605.5.2.1 through 605.5.2.3.4, 4103.1.2.1 through 4103.1.2.4

605.5.2.2 4103.1.2.1 Use and operation. Portable outdoor gas-fired heating appliances shall be used and operated in accordance with Sections 605.5.2.2.1 4103.1.2.1.1 through 605.5.2.2.4. 4103.1.2.1.4

605.5.2.2.1 4103.1.2.1.1 Listing and approval. Only *listed* and *approved* portable outdoor gas-fired heating appliances utilizing a fuel gas container that is integral to the appliance shall be used. Portable outdoor gas-fired heating appliances shall be *listed* and *labeled* in accordance with ANSI Z83.26/CSA 2.37.

605.5.2.2.2 4103.1.2.1.2 Use and maintenance. Portable outdoor gas-fired heating appliances shall be used and maintained in accordance with the manufacturer's instructions.

605.5.2.2.3 4103.1.2.1.3 Tip-over switch. Portable outdoor gas-fired heating appliances shall be equipped with a tilt or tip-over switch that automatically shuts off the flow of gas if the appliance is tilted more than 15 degrees (0.26 rad) from the vertical.

605.5.2.2.4 4103.1.2.1.4 Guard against contact. The heating element or combustion chamber of portable outdoor gas-fired heating appliances shall be provided with a permanent integral guard permanently guarded so as to prevent accidental contact by persons or material.

605.5.2.1-4103.1.2.2 Location. Portable outdoor gas-fired heating appliances shall be used and located in accordance with Sections 605.5.2.1.1 through 605.5.2.1.4. 4103.1.2.2.1 through 4103.1.2.2.4

605.5.2.1.1 4103.1.2.2.1 Prohibited locations. The storage or use of portable outdoor gas-fired heating appliances is prohibited in any of the following locations, except where permitted by Chapter 61, or where the appliance is used in accordance with it's listing:

- 1. Inside of any occupancy where connected to the fuel gas container.
- 2. Inside of tents, canopies and membrane structures.
- 3. On exterior balconies.

Exception: As permitted in Chapter 61.

605.5.2.1.2 4103.1.2.2.2 Clearance to buildings. Portable outdoor gas-fired heating appliances shall be located not less than 5 feet (1524 mm) from buildings.

605.5.2.1.3 4103.1.2.2.3 Clearance to combustible materials. Portable outdoor gas-fired heating appliances shall not be located beneath, or closer than 5 feet (1524 mm) to combustible decorations and combustible overhangs, awnings, sunshades or similar combustible attachments to buildings. Portable gas-fired heating appliances used within tents, canopies, or membrane structures shall not be located within 10 (3048 mm) feet of combustible materials.

605.5.2.1.4 4103.1.2.2.4 Proximity to exits. Portable outdoor gas-fired heating appliances shall not be located within 5 feet (1524 mm) of exits or exit discharges. Portable gas-fired heating appliances used within tents, canopies, or membrane structures shall not be located within 10 feet (3048 mm) of exits or exit discharges.

605.5.2.3-4103.1.2.3 Gas containers. Fuel gas containers for portable outdoor gas-fired heating appliances shall comply with Sections 605.5.2.3.1 through 605.5.2.3.4. 4103.1.2.3.1 through 4103.1.2.3.4

605.5.2.3.1 4103.1.2.3.1 Approved containers. Only approved DOTn or ASME gas containers shall be used.

605.5.2.3.2 4103.1.2.3.2 Container replacement. Replacement of fuel gas containers in portable outdoor gas-fired heating appliances shall not be conducted while the public is present.

605.5.2.3.3 4103.1.2.3.3 Container capacity. The maximum individual capacity of gas containers used in connection with portable outdoor gas-fired

heating appliances shall not exceed 20 pounds (9 kg).

605.5.2.3.4 4103.1.2.3.4 Indoor storage prohibited. Gas containers shall not be stored inside of buildings except in accordance with Section 6109.9.

Add new text as follows:

SECTION 4104 PORTABLE FUEL-FIRED COOKING APPLIANCES

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.

Revise as follows:

308.1.4 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 2¹/₂ pounds [nominal 1 pound (0.454 kg) LP-gas capacity].

Add new text as follows:

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.

Revise as follows:

3107.12.6 4104.4 Outdoor cooking. Outdoor cooking that produces sparks or grease-laden vapors shall not be performed within 20 feet (6096 mm) of a tent or membrane structure. any building or structure of combustible construction, or of any potential ignition source.

3107.12.5 4104.5 Cooking tents. Tents

with sidewalls or drops where cooking is performed shall be separated from other tents or membrane structures by not less than 20 feet (6096 mm).

3107.12.4 4104.6 Operations. Operations such as warming of foods, cooking demonstrations and similar operations that use solid flammables, butane or other similar devices that do not pose an ignition hazard, shall be approved.

Add new text as follows:

SECTION 4105 PORTABLE ELECTRICAL COOKING APPLIANCES

- 4105.1 Portable Electrical 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. 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. Portable electric cooking appliances shall be plugged directly into an approved receptacle or connected to a relocatable power tap rated 20 amps.
- 4105.1.3 Extension Cords. Portable electric cooking appliances shall not be plugged into extension cords.
- 4105.1.6 Prohibited Areas. Portable electric cooking appliances shall not be operated within 3 feet (914 mm) of any combustible materials or in H occupancies. Portable electric cooking appliances shall be operated only in locations for which they are listed.
- 4105.1.5 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.

Revise as follows:

MOBILE FOOD PREPARATION VEHICLES

319.1 4106.1 General. Mobile food preparation vehicles that are equipped with appliances that produce smoke or grease-laden vapors shall comply with this section.

319.2 4106.2 Permit required. Permits shall be required as set forth in Section 105.5.

319.3 4106.3 Exhaust hood. Cooking equipment that produces grease-laden vapors shall be provided with a kitchen exhaust hood in accordance with Section 606.

319.4 4106.4 Fire protection. Fire protection shall be provided in accordance with Sections 319.4.1 and 319.4.2. 4106.4.1 and 4106.4.2

319.4.1_4106.4.1 Fire protection for cooking equipment. Cooking equipment shall be protected by automatic fire-extinguishing systems in accordance with Section 904.13.

319.4.2 4106.4.2 Fire extinguisher. Portable fire extinguishers shall be provided in accordance with Section 906.4.

319.5 4106.5 Appliance connection to fuel supply piping. Gas cooking appliances shall be secured in place and connected to fuel-supply piping with an appliance connector complying with ANSI Z21.69/CSA 6.16. The connector installation shall be configured in accordance with the manufacturer's installation instructions. Movement of appliances shall be limited by restraining devices installed in accordance with the connector and appliance manufacturer's instructions.

319.6 4106.6 Cooking oil storage containers. Cooking oil storage containers within mobile food preparation vehicles shall have a maximum aggregate volume not more than 120 gallons (454 L), and shall be stored in such a way as to not be toppled or damaged during transport.

319.7_4106.7 Cooking oil storage tanks. Cooking oil storage tanks within mobile food preparation vehicles shall comply with Sections319.7.1 through 319.7.5.2. 4106.7.1 through 4106.7.5.2

319.7.1 4106.7.1 Metallic storage tanks. Metallic cooking oil storage tanks shall be listed in accordance with UL 80 or UL 142, and shall be installed in accordance with the tank manufacturer's instructions.

319.7.2 4106.7.2 Nonmetallic storage tanks. Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall comply with both of the following:

- 1. Tanks shall be listed for use with cooking oil, including maximum temperature to which the tank will be exposed during use.
- 2. Tank capacity shall not exceed 200 gallons (757 L) per tank.

319.7.3 4106.7.3 Cooking oil storage system components. Metallic and nonmetallic cooking oil storage system components shall include, but are not limited to, piping, connections, fittings, valves, tubing, hose, pumps, vents and other related components used for the transfer of cooking oil.

319.7.4 4106.7.4 Design criteria. The design, fabrication and assembly of system components shall be suitable for the working pressures, temperatures and structural stresses to be encountered by the components.

319.7.5 4106.7.5 Tank venting. Normal and emergency venting shall be provided for cooking oil storage tanks.

319.7.5.1 4106.7.5.1 Normal vents. Normal vents shall be located above the maximum normal liquid line, and shall have a minimum effective area not smaller than the largest filling or withdrawal connection. Normal vents are not required to vent to the exterior.

319.7.5.2 4106.7.5.2 Emergency vents. Emergency relief vents shall be located above the maximum normal liquid line, and shall be in the form of a device or devices that will relieve excessive internal pressure caused by an exposure fire. For nonmetallic tanks, the emergency relief vent shall be allowed to be in the form of construction. Emergency vents are not required to discharge to the exterior.

319.8 4106.8 LP-gas systems. Where LP-gas systems provide fuel for cooking appliances, such systems shall comply with Chapter 61 and Sections 319.8.1 through 319.8.5.

319.8.1_4106.8.1 Maximum aggregate volume. The maximum aggregate capacity of LP-gas containers transported on the vehicle and used to fuel cooking appliances only shall not exceed 200 pounds (91 kg) propane capacity.

319.8.2 4106.8.2 Protection of container. LP-gas containers installed on the vehicle shall be securely mounted and restrained to prevent movement.

319.8.3 4106.8.3 LP-gas container construction. LP-gas containers shall be manufactured in compliance with the requirements of NFPA 58.

319.8.4 4106.8.4 Protection of system piping. LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

319.8.5 4106.8.5 LP-gas alarms. A *listed* LP-gas alarm shall be installed within the vehicle in the vicinity of LP-gas system components, in accordance with the manufacturer's instructions.

319.9-4106.9 CNG systems. Where CNG systems provide fuel for cooking appliances, such systems shall comply with Sections 319.9.1-4106.9.1 through 319.9.4-4106.9.4.

319.9.1 4106.9.1 CNG containers supplying only cooking fuel. CNG containers installed solely to provide fuel for cooking purposes shall be in accordance with Sections 319.9.1.1 4106.9.1.1 through 319.9.1.3 4106.9.1.3.

319.9.1.1 4106.9.1.1 Maximum aggregate volume. The maximum aggregate capacity of CNG containers transported on the vehicle shall not exceed 1,300 pounds (590 kg) water capacity.

319.9.1.2 4106.9.1.2 Protection of container. CNG containers shall be securely mounted and restrained to prevent movement. Containers shall not be installed in locations subject to a direct vehicle impact.

319.9.1.3 4106.9.1.3 CNG container construction. CNG containers shall be an NGV-2 cylinder.

319.9.2 4106.9.2 CNG containers supplying transportation and cooking fuel. Where CNG containers and systems are used to supply fuel for cooking purposes in addition to being used for transportation fuel, the installation shall be in accordance with NFPA 52.

319.9.3 4106.9.3 Protection of system piping. CNG system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage and damage from vibration.

319.9.4 4106.9.4 Methane alarms. A listed methane gas alarm shall be installed within the vehicle in accordance with manufacturer's instructions.

319.10 4106.10 Maintenance. Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 319.10.1 4106.10.1 through 319.10.3 4106.10.3.

319.10.1 4106.10.1 Exhaust system. The exhaust system, including hood, grease-removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with Section 606.3.

319.10.2 4106.10.2 Fire protection systems and devices. Fire protection systems and devices shall be maintained in accordance with Section 901.6.

319.10.3 Fuel gas systems. LP-gas containers installed on the vehicle and fuel-gas piping systems shall be inspected annually by an approved inspection agency or a company that is registered with the US Department of Transportation to requalify LP-gas cylinders, to ensure that system components are free from damage, suitable for the intended service and not subject to leaking. CNG containers shall be inspected every 3 years in a qualified service facility. CNG containers shall not be used past their expiration date as listed on the manufacturer's container label. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection.

308.1.5 Location near combustibles. Open flames such as from candles, <u>and</u> lanterns, <u>kerosene heaters and gas-fired heaters</u> shall not be located on or near decorative material or similar combustible materials.

313.1 General. Fueled equipment including, but not limited to, motorcycles, mopeds, lawn-care equipment, portable generators and portable cooking equipment, shall not be stored, operated or repaired within a building.

Exceptions:

- 1. Buildings or rooms constructed for such use in accordance with the International Building Code.
- 2. Where allowed by Section 314.
- 3. Storage of equipment utilized for maintenance purposes is allowed in *approved* locations where the aggregate fuel capacity of the stored equipment does not exceed 10 gallons (38 L) and the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.
- 4. Fuel-fired portable heating and cooking equipment stored, operated, or repaired in accordance with Chapter 41.

605.1 General. The design, construction, installation, operation, alteration, repair and maintenance of nonportable gas-fired appliances and systems shall comply with the provisions of this section and the *International Fuel Gas Code*. The design, construction, installation, operation, alteration, repair and maintenance of nonportable solid fuel-fired and oil-fired appliances and systems shall comply with the provisions of this section and the *International Mechanical Code*. The construction and use of portable fuel-fired appliances not connected to a fixed fuel piping system, such as blow torches, melting pots and weed burners, shall comply with this section.

3107.12 Heating and cooking equipment. Temporary

Hheating and cooking equipment shall be in accordance with Chapter 41. Permanent heating and cooking equipment shall be in accordance with Chapter 6 and Sections 3107.12.1 through 3107.12.73.

Reason: During the COVID 19 Pandemic, it was noted by many fire and building officials that the code requirements surrounding temporary heating and cooking, especially in tents and canopies was disjointed and often confusing. In addition, some types of heating and cooking appliances were not adequately covered. Adding to the confusion is the rewrite of Chapter 6 to align with things that occur in buildings, making those things that occur

in tents and membrane structures less applicable to Chapter 6 provisions.

It was felt that relocating all temporary heating and cooking should be relocated to a new chapter 41. This involved moving things from Chapter 3, 6, and 31 all to a new location.

The group did not move any requirements for temporary heating on construction sites as it was felt that having all requirements for fire safety during construction co-located was better from a usability standpoint.

The requirements found in the new Chapter 41 are largely not new, just relocations. And while there are some new sections, they are intended to be in line with existing text relocated here.

Specifically, the following things are new:

3 new operational permits are being proposed. One deals with cooking and heating in tents. One deals with the use of temporary heating and cooking in designated wildfire hazard zones, and the last deals with temporary heating and cooking at construction sites.

The general section, 4101, contains a pointer to 308 to make sure those requirements are utilized appropriately. The additional requirements are largely taken from other sections to provide code continuity with other sections. For example, 4101.3 is taken from language in 3304.1. 4101.4 is taken from section 605, and 307.5.

Several operational requirements found in 3107 have been relocated to the new chapter.

Items on oil filled heaters and refueling of fuel fired appliances have been based on 3304 language.

4101.9 is copied from section 3106.

The hazard abatement language in the new 4101.10 is taken from 601 and 313.1.1.

Section 4102 is all relocated from 603.9.

Section 4103 is all relocated from 605.5. There is a change in language in 4103.1.2.1.4 to clear up ambiguous language from the current code.

4103.1.2.2.1 has a new pointer to Chapter 31 in the main section rather than as an exception in the same section.

The new language in 4103.1.2.2.3 and 4103.1.2.2.4 are taken from 3107.12.3 to remain consistent with those sections.

Section 4104 applies to portable fuel-fired equipment. A new section 4104.3 was introduced for indoor cooking, but is consistent with 3107.12.3.

the change in 4104.4 is intended to clarify that this should apply to all structures, not just tents and membrane structures.

4105 is for portable electrical cooking appliances. This was largely pulling from other sections such as 603.9. 4105.1.2 is intended to allow for the safe use of crockpots and other appliances with intermittent loads. We also clarified that cooking should not occur in H occupancies. This use should be moved to a B occupancy portion of the building. 4105.1.5 is intended to ensure that an appliance cannot accidentally be cycled back on.

319, another form of temporary cooking would be relocated to the new chapter as well. There are no changes proposed here, only renumbering.

The last portion of the proposal modifies existing language in other chapters to point to the new chapter, and to modify the scoping provisions of those sections.

605.1 is modified to point to chapter 41 for temporary activities

313 is changed to refer to the new Chpter 41 and to remove the reference to cooking in the charging language.

308.1.5 is modified to remove those things covered in the new chapter.

And 3107.12 is modified to refer the user to chapter 41 for temporary heating and cooking, and stay there for permanent heating and cooking that might occur here.

Cost Impact: The code change proposal will not increase or decrease the cost of construction

This proposal moves existing requirements from other locations to a new common chapter. New language is also taken from other places, and is largely covered by listings and instructions from manufacturers.