

DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS

Repeal of Chapter 12-45.3

Hawaii Administrative Rules

January 1, 2018

SUMMARY

Chapter 12-45.3, Hawaii Administrative Rules, entitled "State Fire Code", is repealed.

TITLE 12

DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS

CHAPTER 45.3

STATE FIRE CODE

Repealed

§§12-45.3-1 to 12-45.3-120 Repealed. [ ]

DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS

Adoption of Chapter 12-45.4

Hawaii Administrative Rules

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SUMMARY

Chapter 12-45.4, Hawaii Administrative Rules, entitled "State Fire Code", is adopted.

HAWAII ADMINISTRATIVE RULES

TITLE 12

DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS

SUBTITLE 7

BOARDS

CHAPTER 45.4

STATE FIRE CODE

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Historical Note: Chapter 12-45.4 is based substantially upon chapter 12-45, subchapter 2. [Eff 6/6/86; am and comp 8/13/87; am and comp 4/18/92; R ]

## SUBCHAPTER 1

## RULES OF GENERAL APPLICABILITY

§12-45.4-1 Purpose. The purpose of this chapter is to adopt the state fire code as required by section 132-3, Hawaii Revised Statutes (HRS). [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(HRS 132-3 authorizes the State Fire Council (SFC) to adopt a state fire code establishing minimum requirements relative to the protection of persons and property from fire loss. The provisions of this chapter establish a reasonable level of fire and life safety from fire to building occupants, property protection, and enhanced emergency responder safety. HRS 107-25 also requires the state fire council to adopt the state fire code & becomes part of the Hawaii state building codes.)**

§12-45.4-2 Scope. This chapter sets forth minimum requirements necessary to establish a reasonable level of fire and life safety and property protection from the hazards created by fire, explosion, and dangerous conditions. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The existing scope only addressed "fire loss" and this code does more than that. This takes text from the "purpose" section of NFPA 1 because it is more encompassing and reflects the provisions of the code. The scope of the state fire code include the diverse aspects relating to fire protection embodied in the latest edition of a national fire code with applicable state amendments.)**

§12-45.4-3 Definitions. In this chapter, unless the context otherwise requires:

"Annex" means the explanatory material attached to the NFPA 1, Fire Code.

"NFPA" means the National Fire Protection Association.

Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This provision carries over from the previous edition, but with some revisions. The definition of "Authority having jurisdiction" is deleted from this amendment section because it is already in the code. Annexes and Table 13.2.3.4.3A are used in §12-45.4-4.**

**The definition of “building code” is changed to match the definition in the amendment to section 3.3.53.1 of this code. It is not deleted because it is important to clearly delineate that the building code is whatever the county has adopted. The definition of NFPA 1 Fire Code is not needed in the definition section as it is stated in Section 12-44.4-4 below. Definition of Section is deleted because it commonly refers to a specific part of a chapter. These definitions seek to clarify terms used in this document to avoid confusion with similar terms in other documents or terms that are unfamiliar to the reader. The NFPA 1, Fire Code, Chapter 3, has a comprehensive list of definitions as used in this and other related NFPA documents. -“Inoperable System Sign”, and “ Water-based fire extinguishing system” in the “Definitions” section were moved to Section §12-45.4-20.)**

§12-45.4-4 Adoption of the 2015 NFPA 1, Fire Code. The NFPA 1, Fire Code, 2015 edition is made a part of this chapter, subject to the amendments provided in this chapter. The annexes to the NFPA 1, Fire Code are not adopted except as provided in this chapter.  
[Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The adoption of Annex E in the 2012 edition is no longer needed because Annex E is now in the text of the code as Section 18.5.1, so it was deleted from this amendment for 2015. Clarifies that the NFPA 1 Fire Code, 2015 edition is the referenced national model fire code document with statewide application as amended herein. The annexes are reference documents to the fire code and unless specifically adopted, are not requirements.)**

§12-45.4-5 Permit Authorization. Each county may, by ordinance, require that a permit be obtained from the AHJ for any area regulated by this chapter. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(Under the authority of this code, there are no state fire code permits. Permit authorization fall under the jurisdiction of each adopted county fire code and is specifically authorized by HRS 107-28(a).)**

## SUBCHAPTER 2

### AMENDMENTS TO THE NFPA 1, FIRE CODE

§12-45.4-6 Title. Section 1.1.2 is amended to read as follows:  
1.1.2 Title. This code shall be known as the State Fire Code, may be cited as such, and will be referred to in this chapter as this code.  
[Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code and gives the title to the state amendments to the NFPA 1 Fire Code, 2015 edition.)**

§12-45.4-7 Conflicts. Section 1.3.3.3 is added to read as follows:  
1.3.3.3 When a difference occurs in the requirements for design and construction for new construction of buildings between this code and the building code, the building code shall apply.

Exception: This code does not apply to new construction except when this code is specifically referenced from the building code.  
[Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This clarifies that the county building codes take precedence for design and construction of new buildings. "Of buildings" was added to ensure that this fire code may still apply to new construction.)**

§12-45.4-8 Building Code. Section 1.3.6.3 is amended to read as follows: 1.3.6.3 Repairs, renovations, alterations, reconstruction, change of occupancy, and additions to buildings shall conform with the building code. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This clarifies that the general adoption by reference of NFPA 101, Life Safety Code does not apply to renovations, because it is not currently adopted by the building departments for new construction.)**

§12-45.4-9 Enforcement. Section 1.6 is amended to read as follows: 1.6 Enforcement. This Code shall be administered and enforced

by the AHJ designated by HRS 132. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was changed to match the text in section 1.6, which uses the term “enforcement.” It adds the reference to the overarching requirements for the Hawaii Revised Statutes section 132 that provide all the enforcement authority. This was in the previous state fire code. Fire Chief was changed to AHJ to be consistent with NFPA 1. The term AHJ will usually apply to the Chief, but could include other authorities, such as the building official, if that authority applies. Also, “Chief is not defined in this code, but AHJ is defined.)**

§12-45.4-10 Records and Reports. Section 1.11.5 is added to read as follows: 1.11.5 Upon the AHJ’s request, every company or agent transacting the business of fire insurance in this State shall be required to file with the AHJ in each county a monthly record of fire losses paid or incurred on forms prescribed, permitted, or furnished by the AHJ. These forms shall contain information on each fire loss such as the name of the insured, name of the adjuster, date and time of fire, construction of building or structure burned, amount of insurance paid, and apportionment of the loss where more than one company insured the risk.

The current National Fire Incident Reporting System report forms may be used. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. In addition to requirements for county records it adds an authorization for the AHJ to review insurance carrier’s records of fire losses.)**

§12-45.4-11 Permit Required. Section 1.12.8 and Tables 1.12.8(a), (b), (c), and (d) are deleted in their entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. There are no state fire code permit requirements. Permits are authorized by county ordinance through the respective adopted county fire code.)**

§12-45.4-12 Authorization. Section 1.13.1 is amended to read as follows: 1.13.1 Authorization. The AHJ shall have the authority to require certificates of fitness and collect fees for individuals performing any of the following activities:

- (1) Maintenance and testing of portable fire extinguishers
- (2) Maintenance and testing of fire protection systems
- (3) Maintenance and testing of fire alarm systems
- (4) Inspection and Maintenance of commercial cooking hood and duct systems

[Eff \_\_\_\_\_ ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(HRS 132-16 authorizes the county fire departments to require COF's for the individuals performing the above activities. It deletes other listed COF's to clarify that the county fire departments are authorized to require the above. Added commercial cooking hood and duct systems to give the AHJ the ability to monitor and control the work being done to these systems.)**

§12-45.4-13 Mandatory. Section 1.13.2 is amended to read as follows: 1.13.2 Mandatory. The AHJ shall require certificates of fitness and collect fees for individuals performing any of the following activities:

1. Maintenance and testing of portable fire extinguishers
2. Maintenance and testing of water-based fire extinguishing systems
3. Maintenance and testing of other fire extinguishing systems
4. Maintenance and testing of private fire hydrants
5. Maintenance and testing of fire alarm systems

[Eff \_\_\_\_\_ ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(This amendment authorizes the county fire departments to issue the COF's and collect fees for the type of work listed above. The FPC discussed the need to determine the scope of the above listed section for other "fire extinguishing systems" and the need to keep the full list from the model code (except references to installation). The AHJ will approve individuals who are qualified to ITM these systems and appliances. They will evaluate the credentials, satisfactorily completed courses, experience and training necessary to qualify for each COF. It deletes other listed COF's to clarify that the AHJ is only authorized to approve the**

**above. The other fire protection systems are listed in Table 13.8. This to clean up language and incorporate 12-44.1 requirements.)**

§12-45.4-14 Certification of Applicant. Section 1.13.5.1 is amended to read as follows: 1.13.5.1 Individuals applying for a certificate of fitness shall furnish to the AHJ evidence of familiarity with applicable codes, regulations, standards, listings, guidelines, and construction and safety practices for the activity for which the certificate of fitness is issued. Documentation of satisfactory completion of courses, classes, testing and experience shall be submitted to the AHJ. In addition, a completed application and a copy of their current driver's license shall be submitted to the AHJ. [Eff ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(The AHJ shall evaluate the qualifications of each applicant and determine a level of competency to ITM the systems and appliances. This also adds the application and driver license requirement. Manufacturer training will not be a substitute for third party certification. Manufacturer training may be included in an applicant's submittal documents. The HRS states that the counties will set the fees and be the enforcers, but the fees are being placed in the state fire code to be consistent statewide.)**

§12-45.4-15 Certification of Applicant. Section 1.13.6 is amended to read as follows: Certificates of fitness shall not be transferrable.

(a) The AHJ shall provide the applicant with an identification of their certificate of fitness which shall be presented by the individual when performing inspection, testing, and maintenance for the licensed activity to any person seeking services, or the AHJ, upon request.

(b) The fee for the certificate of fitness is payable by check or money order to the county fire department and is nonrefundable. Cash will not be accepted.

(c) Classification of certificate of fitness and fees are as follows:

- (1) Portable fire extinguisher - \$100
- (2) Fire Protection Systems
  - a. Water-based fire extinguishing system - \$100
  - b. Other fire extinguishing systems - \$100

- c. Private fire hydrants - \$100
- (3) Fire alarm system - \$100
- (4) Certificate of fitness renewals - \$100 for each category and/or subcategory.

[Eff ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(The AHJ will provide a certificate to the individual that can be presented to any person needing verification of the individual's approved credentials. Fees are in alignment with HAR §12-44.1 and are based on a reasonable amount to cover administrative costs. This section needs to be here as it is not in HAR 12-44.1(Systems Ad Rules) & to be consistent statewide.)**

§12-45.4-16 Certification of Applicant. Section 1.13.7 is amended to read as follows: 1.13.7 Certificates of fitness shall be issued in accordance with HAR §12-44.1 and renewed every three (3) years. [Eff ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(HAR §12-44 .1 states a COF to be valid for 3 years before a renewal is required.)**

§12-45.4-17 Revocation or Suspension of Certificates of Fitness. Section 1.13.12.1 is amended to read as follows:  
1.13.12.1. (a) The county fire department may revoke, or suspend the certificate of fitness for just cause, if, after notice, it finds that the certificate of fitness holder:

- (1) Violated any portion of the state fire code;
- (2) Performed any work in an unsafe manner;
- (3) Misrepresented services rendered;
- (4) Rendered inoperative a portable fire extinguisher, fire protection system, or fire alarm system, required by statute or administrative rule, without notification to the AHJ. The individual shall present an alternative plan or appliance acceptable to the AHJ, before the leaving the property. The system may be rendered inoperative during such time the system is being maintained or tested, or pursuant to court order;
- (5) Falsified any record required to be maintained by this chapter; or

(6) Improperly maintained or tested any portable fire extinguisher, fire protection system, or a fire alarm system.

(b) Upon revocation no new certificate of fitness shall be issued to the individual for a period of up to one year from the date of the revocation, during which time the individual shall cease all related activities as a licensed contractor. [Eff \_\_\_\_\_ ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(“(a)” & “(b)” were inserted to replicate the HAR 12-44.1 (Systems Testing Ad Rules) format of this section. It also authorizes the county fire departments to have regulatory authority to deny, revoke, or suspend COF’s based on verifiable evidence of the individual’s not meeting minimum qualifications or violation of any related statutes, rules, or codes.)**

§12-45.4-18 Revocation or Suspension of Certificates of Fitness. Section 1.13.12.4 is amended to read as follows: 1.13.12.4 Decisions for denial, revocation, or suspension may be appealed in accordance with the county appeal process. [Eff \_\_\_\_\_ ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(Since COF approval, revocation/suspension is county authorized, appeals shall be handled by the county.)**

§12-45.4-19 NFPA Publications. Section 2.2 is amended to add as follows: 2.2 NFPA 1124: Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles, 2013 Edition. [Eff \_\_\_\_\_ ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(This was added because it was deleted out of the NFPA 1 Fire Code 2015 Edition, but is included to allow the use of requirements for storage & retail sales of consumer fireworks from NFPA 1124 Chapter 6 & 7, 2013 Edition, in Section 65.10. It also allows the use of other 1124 Sections that are adopted by the counties.)**

§12-45.4-20 NFPA Official Definitions. Section 3.2 is amended by adding as follows:

“Inoperable system sign” means a weather resistant sign denoting “Inoperable” having a white background with red letters. The letters shall be a minimum height of three inches and a minimum width of one-fourth of an inch stroke.

“Water-based fire extinguishing system” means any class I, II, and III and combined standpipe system, automatic sprinkler system, fire pumps or automatic water spray fixed system utilizing water as an extinguishing agent. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(These definitions were moved from §12-45.4-3 Definitions to Chapter 3.2 NFPA Official Definitions in the state fire code.) Building code definition was removed as 3.3.53.1 in the fire code states that the building code is the code adopted by the jurisdiction.)**

§12-45.4-21 Electrical Code. Section 3.3.53.2 is amended to read as follows: 3.3.53.2 Electrical Code. The electrical code is the electrical code adopted by the jurisdiction. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The section reference to 3.3.53.2 was changed from 3.3.54.2 in the 2012 edition. This was in the previous state fire code. Each county adopts its own electrical code that is based on the adopted state electrical code. Jurisdiction is consistent with the building code definition in the fire code.)**

§12-45.4-22 Mechanical Code. Section 3.3.53.3 is amended to read as follows: 3.3.53.3 Mechanical Code. The mechanical code is the mechanical code adopted by the jurisdiction. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. The State Department of Health has ad rules for A/C & ventilation which are based on national standards & the International Mechanical Code The counties do not adopt the mechanical code. Honolulu reviews A/C & ventilation exempt from State requirements. Residential ventilation systems, except for one- & two-family dwellings are**

**reviewed for Housing Code Compliance. The section reference to 3.3.53.3 was changed from 3.3.54.3 in the 2012 edition.**

§12-45.4-23 Plumbing Code. Section 3.3.53.4 is amended to read as follows: 3.3.53.4 Plumbing Code. The plumbing code is the plumbing code adopted by the jurisdiction. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(Jurisdiction is consistent with the building code definition in the fire code. The section reference to 3.3.53.4 was changed from 3.3.54.4 in the 2012 edition. This was in the previous state fire code. Each county adopts its own plumbing code that is based on the adopted state plumbing code. The county plumbing code takes precedence for new building construction.)**

§12-45.4-24 Fire Watch. Section 3.3.125 is amended to read as follows: 3.3.125 Fire Watch. The assignment of a person or persons to an area for the express purpose of notifying the fire department and the building occupants of an emergency; preventing a fire from occurring; extinguishing small fires; and protecting the public from fire or life safety dangers. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The section reference to 3.3.125 was changed from 3.3.6 in the 2012 edition. Changes "or" to "and" to clarify that all the criteria apply to the term. )**

§12-45.4-25 Maintenance. Section 4.5.8.1 is amended to read as follows: 4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements and the building code or requirements developed as part of a performance-based design, or as directed by the AHJ. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. This amendment which is only adding "and the building code" in the last sentence is here**

**because the building should be maintained to how it was required to be built. This allows the fire code enforcer, who inspects for maintenance issues, to enforce the requirements of the original construction to be maintained.)**

§12-45.4-26 Maintenance, Inspection, and Testing. Section 4.5.8.8 is added to read as follows: 4.5.8.8 The AHJ is authorized to witness any maintenance, or test of a portable fire extinguisher, fire protection system, and fire alarm system by a certificate of fitness holder to determine if the maintenance or test meets the minimum requirements set forth by this code, applicable rules, and statutes. [Eff ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(This was relocated from 13.1.1.2.1 which only included fire protection systems a new section of the fire code that includes witnessing any inspection test or maintenance of any device, equipment, system. etc. by a COF holder by the AHJ. This gives the AHJ authority to inspect or witness any fire protection system to ensure it meets minimum requirements and allows the AHJ to observe COF holders to determine if ITM of these appliances or systems are being conducted as required. The importance of the proper operation of these life safety devices and appliances cannot be overemphasized.)**

§12-45.4-27 Unsafe Buildings. Section 10.2.4 is amended by adding a sentence at the end to read as follows: For abatement of unsafe buildings, see the building code. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. Clarifies that the requirement for the abatement of unsafe buildings is authorized by the building code.)**

§12-45.4-28 On-Premise Firefighting. Section 10.6.1.2 is amended to read as follows: 10.6.1.2 Facilities that have established on-premises fire-fighting organizations and have coordinated and arranged procedures approved by the AHJ shall notify the fire department in accordance with the approved plan. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The reference to 10.7.1.2 was changed to 10.6.1.2 because the section changed in the 2015 edition. This was in the previous state fire code. Requires notification, submittal and approval of an on-premises fire fighting plan to the county fire department. This is to facilitate cooperation and awareness of the capabilities and expectations in the event of a mutual aid response to an incident.)**

§12-45.4-29 Posting Exit Plans. Section 10.8.1.1 is added as follow: 10.8.1.1 Posting Exit Plans. When required by the AHJ, approved exit plans shall be posted in approved locations. [Eff ]  
(Auth: HRS §132-3)(Imp: HRS §132-3)

**(This is added to allow the AHJ to require posting exit plans. This is required in the code already for hotel rooms, but the AHJ may want to require this for classrooms and other rooms. The word "approved" has been added to allow the AHJ to review the exit plan prior to posting. Chapter 20 sections regarding Emergency Action Plans refer back to Section 10.8. Also leaving this amendment in this section allows the AHJ the flexibility for requirements concerning posting of exit plans.)**

§12-45.4-30 Open Flames, Candles, Open Fires, and Incinerators. Sections 10.10.1, 10.10.1.1, 10.10.1.2, 10.10.1.3, and 10.10.1.4 are deleted and replaced with sections 10.10.1 and 10.10.1.1 to read as follows: 10.10.1. Agricultural Burning. (a) See Department of Health, Clean Air Branch, regulation of fires for agricultural burning.

(b) Except for closed incinerators approved by the state health department, private incineration is prohibited by state health laws. Clearance by the state health department for and notification of all agricultural fires either by telephone or written notice shall be on file with the AHJ before these fires are permitted.

(c) For fire safety regulations, see county requirements and 10.10.1.1 below.

10.10.1.1 Open Fires in Counties. Control of the following fires shall be established by each county:

1. Fires for agricultural purposes.
2. Fires for recreational, decorative, or ceremonial purposes.
3. Fires to abate a fire hazard.
4. Fires for prevention or control of disease or pests.

5. Fires for training of fire fighting personnel.
6. Fires for disposal of dangerous materials.
7. Fires for residential bathing purposes.
8. Fires for cooking of food.

[Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The reference to 10.11.1 was changed to 10.10.1 because the section changed in the 2015 edition. This was in the previous state fire code. These types of fires mirror state administrative rules (HAR Title 11, Chapter 60, Subchapter 3 "Open Burning", but their control is under the jurisdiction of the county fire departments and are not subject to state air pollution laws. Fires for agricultural purposes require a permit from the State Department of Health. Section 10.10.1 (b) was moved from Open Fires in Counties and placed with the State's Agricultural Burning section.)**

§12-45.4-31 Prohibition. Section 10.10.2 is amended to read as follows: 10.10.2 The AHJ shall have the authority to prohibit any or all open flames, candles, and open, recreational, and cooking fires or other sources of ignition, or establish special regulations on the use of any form of fire or smoking material where circumstances make such conditions hazardous. Open flame devices utilizing gas or liquid fuel, such as but not limited to tiki torches, shall keep a minimum of 3 feet clearance from the flame to combustibles, and shall maintain a vertical height of 7 feet from grade to flame. The AHJ is authorized to modify these clearances based on site conditions. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The reference to 10.11.2 was changed to 10.10.2 because the section changed in the 2015 edition. Open flame devices outside or inside of buildings pose a potential hazard and prohibitions are needed to safeguard life safety and property protection. Reasonable judgment is allowed where candles with noncombustible, substantial bases on dining tables and protected by a globe, such as in a restaurant, should not be considered overly hazardous. Open flame devices using gas or liquid fuel was added to coincide with gas company requirements. AHJ approval gives discretion to allow for unusual circumstances or events.)**

§12-45.4-32 Outdoor Fires. Section 10.10.3.1 is amended to read as follows: 10.10.3.1 Outdoor fires shall not be built, ignited, or maintained in or upon hazardous fire areas, without approval from the AHJ. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The reference to 10.11.3.1 was changed to 10.10.3.1 because the section changed in the 2015 edition. This was in the previous state fire code. "Permit" was deleted because no permits are required in this code. The AHJ may include the fire department or other agencies, such as the State Department of Health (DOH).)**

§12-45.4-33 Open Fires. Section 10.10.4.1 is amended to read as follows: 10.10.4.1 Open fires shall be located not less than 50 ft (15 m) from structures or as approved by the AHJ. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The reference to 10.11.4.1 was changed to 10.10.4.1 because the section changed in the 2015 edition. The word "determined" was changed to "approved" because it is defined in the code as acceptable to the AHJ. This clarifies that it is the AHJ making the determination, not the public. This is similar to the previous state fire code. "Permitted" was deleted because the state fire code does not require permits. The deletion of "any" allows better discretion by the AHJ. The AHJ may include the fire department or other agencies, such as the State DOH and if there are conflicts the stricter rule would apply.)**

§12-45.4-34 Cooking Equipment. Section 10.10.6.2 is deleted in its entirety. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The reference to 10.11.6.2 was changed to 10.10.6.2 because the section changed in the 2015 edition. The purpose for deleting this section is to not tell apartment owners they cannot store a hibachi or other device on the balcony because they might store it in their apartment, which would be worse. 10.10.6.1 still says they cannot cook on the balcony. This is a new amendment. This requirement was felt to be unenforceable by the fire departments to inspect all balconies and would be better left to each building's homeowner's association to prohibit. Also, if residents were not**

**allowed to store on the balcony, even though they are prohibited from using it on the balcony, but use it for the beach or camping, would they then bring it indoors and create a greater potential hazard by storing a propane tank indoors?)**

§12-45.4-35 Signage. Section 10.18.3.5 is added to read as follows: 10.18.3.5 Signage. In storage and mercantile occupancies, a sign shall be posted on the automatic sprinkler riser stating the maximum allowable storage height for the design of the sprinkler system as approved by the AHJ. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The reference to 10.19.8 was changed to 10.18.3.5 because the section changed in the 2015 edition. This was in the previous state fire code. It addresses the allowable storage height in these occupancies based on the original design of the sprinklers system. Businesses lease spaces in warehouses with high ceilings and bring in high-piled storage racks, which the original sprinkler system was not designed to control. This amendment assists the fire inspector with identifying these cases.)**

§12-45.4-36 Elevators, Escalators and Conveyors. Section 11.3 is deleted in its entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(11.3 is deleted since the state elevator code will apply.)**

§12-45.4-37 Installation and Maintenance. Section 11.6.2 is amended to read as follows: 11.6.2 Maintenance. Waste chutes, laundry chutes, and incinerators shall be maintained in accordance with NFPA 82, *Standard on Incinerators and Waste and Linen Handling Systems and Equipment*, unless such installations are approved existing installations, which shall be permitted to be continued in service. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(“Installation” is deleted because this section addresses only maintenance. The amendment stays the same as the 2012, but the word “rubbish” is changed to “waste” in the 2015. This was in the previous state fire code.)**

§12-45.4-38 Emergency Command Center. Section 11.9.5 is amended by adding Items 12, 13, and 14 to read as follows:

12. The room shall be accessible from the exterior of the building
13. Control panels in the emergency command center shall be permanently identified as to its function
14. Alarm, supervisory and trouble signals shall be annunciated in compliance with the fire code in the emergency command center by means of an audible and visual indicator

[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(These requirements were in the adopted state fire code Title 12 amendments to the 1997 edition of the Uniform Fire Code. They provide more direct room access and increased identification of control panel indicating devices.)**

§12-45.4-39 One- and Two-Family Dwellings and Townhouses. Section 11.12.2.2.2 is amended to read as follows: 11.12.2.2.2 One- and Two-Family Dwellings and Townhouses. One- and two-family dwellings need not comply with section. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This amendment is being kept because Honolulu, Hawaii and Kauai counties don't currently review plans for PV installations for one- and two-family dwellings. This also coincides with Fire Operations strategies regarding structure fires involving one- and two-family dwellings.)**

§12-45.4-40 Identification. Section 12.4.7 is added to read as follows: 12.4.7 Identification. When required by the AHJ, a sign shall be displayed permanently near or on each required fire door in letters not less than 1 inch (25.4 mm) high. The wording of the required sign can only be modified with prior written approval of the AHJ. The sign shall read as follows:

**FIRE DOOR  
DO NOT OBSTRUCT  
or  
FIRE DOOR  
KEEP CLOSED**

[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(Keep this amendment. It comes from the 1997 UFC section 1111.2.3. This was in the previous state fire code. It provides two options to required fire door signage.)**

§12-45.4-41 General. Section 13.1 is amended by adding a new first paragraph and exception to read as follows: 13.1 General. The provisions of this chapter for new construction do not apply. For new construction see the building code. Existing buildings shall be maintained to the requirements to which it was built unless specifically indicated it applies to existing facilities.

Exception: When the building code does not require fire alarm systems, fire alarm systems shall be required according to Section 13.7. When the building code does require a fire alarm system, the requirements of the building code shall apply. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. The building code regulates requirements for new construction. Each county has the authority to adopt the state fire code with local amendments with provisions for new construction. Existing buildings are not required to comply with newer editions of the fire code unless there is a change in occupancy use or conditions exists that pose imminent danger to building occupants. This was relocated to 4.5.8.8 a new section of the fire code that includes any device, equipment, system. etc.)**

§12-45.4-42 Permits. Section 13.1.4.2 is added to read as follows: 13.1.4.2 Fire department hose connections serving standpipe and sprinkler systems shall be located within 20 feet of a fire apparatus access road, not less than 18 inches and not more than 4 feet above grade, or as approved by the AHJ. Appropriate identification signs shall be provided as required by the AHJ. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It requires connections to be in readily accessible locations to roadways for fire department use. It incorporated two amendments, one for standpipes and one for sprinklers into one amendment for both**

**types of connections. Section heading was amended to mirror NFPA 1)**

§12-45.4-43 Permits. Section 13.1.5 is amended to read as follows: 13.1.5 Detailed records documenting all systems and equipment inspections, testing, and maintenance shall be kept by the property owner and shall be made available upon request for review by the AHJ.  
[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

§12-45.4-44 Permits. Section 13.1.5 is added to read as follows: 13.1.5.1 A copy of a system's unsatisfactory inspection and maintenance test report shall be submitted to the AHJ by the testing company within five (5) working days after the completion of the test.  
[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The first paragraph from the 2012 amendment was deleted because section 13.1.1 requires this already. The second paragraph from the 2012 amendment is moved to be 13.1.5.1 where it is more appropriate. This was in the previous state fire code. This authorizes the appropriate county agency i.e. fire hydrants (Board of Water Supply), fire sprinklers and standpipes installation (Building Department), to meet its respective requirements. The fire department does acceptance testing for fire alarm systems and commercial cooking fire extinguishing systems. This specifies that installation and location must be approved by the AHJ on these specific items. Amendment to section 13.1.5 was in in the previous state fire code. It coincides and reinforces the amendment to section 13.1.2. Section heading was amended to mirror NFPA 1. Made revision to 13.1.5 to ITM to be consistent in the order.)**

§12-45.4-45 Permits. Section 13.1.8 is amended to read as follows: 13.1.8 The AHJ shall be verbally notified immediately when any fire protection system is out of service and on restoration of service.  
[Eff ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(Any fire protection system that is not operational requires an immediate evaluation of the response and strategies to develop an action plan with alternatives in mitigating a fire incident.)**

§12-45.4-46 Permits. Section 13.1.8 is amended by adding Sections 13.1.8.1, 13.1.8.2, and 13.1.8.3 as follows: 13.1.8.1 The county fire department shall be given a seventy-two hour notification prior to a scheduled inspection, testing, maintenance or retesting of any fire protection system (including class I, II, and III, and combined systems, automatic fire sprinkler systems, and other fire extinguishing systems) and fire alarm systems within their respective jurisdiction in the State of Hawaii.

13.1.8.2 Failure to comply with the requirements of this section will result in the county fire department deeming it an invalid test. A retest may be required to be performed at the testing company's expense.

13.1.8.3 The certificate of fitness holder shall immediately notify the county fire department of any system inspection, testing or maintenance cancellations or changes to the scheduled date and time. [Eff ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(This allows the enforcing authority time to schedule or reschedule availability to witness any maintenance test by a COF holder.)**

§12-45.4-47 Inspection, Testing, and Maintenance. Section 13.2.3 is amended by adding sections 13.2.3.3.1, 13.2.3.3.2, 13.2.3.3.2.1, 13.2.3.3.3, 13.2.3.3.3.1, 13.2.3.3.4, 13.2.3.3.5, 13.2.3.3.5.1, and 13.2.3.3.5.2 as follows: 13.2.3.3.1 Inspection label and collar. An approved label and verification collar signifying successful passing of the system shall be provided when inspecting, testing, or maintaining any class I, II, III, and combined standpipe fire extinguishing system.

13.2.3.3.2 Five Year Inspection Label

13.2.3.3.2.1 (a) Class I, II, and III, and combined standpipe fire extinguishing systems passing a five-year inspection (annual inspection for class II hoses) shall have an approved, weatherproof, inspection label affixed to the fire department connection. If the system does not have a fire department connection, labels shall be affixed to hose cabinets located on the ground floor and the top-most floor.

(b) The label shall indicate the type of system, month and year the system was inspected, tested, and maintained; the certificate of fitness holder's name and certificate number; and the company name, address and contact information.

**(This provides information to contact the COF if necessary. This information is needed for fire inspection purposes.)**

(c) The label shall be yellow, at least two and one-fourth inches in width and three and one-fourth of an inch in length, and clearly visible without obstructing the operation of the fire extinguishing system.

(d) The label shall be constructed of a durable material approved by the AHJ.

(e) The label shall be punched with no more than one year and one month.

#### 13.2.3.3.3 Verification Service Collar.

13.2.3.3.3.1 The verification of service collar shall be a circular, solid of continuous plastic with at least a three-inch diameter hole in the center and shall slide onto each hose length approximately midway from the male and female couplings after the physical inspection has been completed and deemed satisfactory. The verification service collar shall:

(a) Indicate the month and year the hose was inspected; the certificate of fitness holder's name and number; and company name, address and contact information.

**(Required to be able to contact the COF if necessary. The collar also ensures the hose was fully extended & visually checked for suitability.)**

(b) Be constructed of other suitable materials when approved by the AHJ.

13.2.3.3.4 Systems that cannot be utilized for firefighting operations shall have an inoperable system sign affixed to the fire department connection. (a) The tag shall have a white background with red lettering and be constructed of wood, metal, or plastic.

(b) The letters shall be a minimum height of three inches and a minimum width of one-fourth of an inch stroke.

(c) If the system does not have a fire department connection, inoperable system signs shall be affixed to hose cabinets located on the ground floor and the top-most floor.

(d) The sign shall remain in place until all repairs have been made and a satisfactory system test is completed.

#### 13.2.3.3.5 Inspection, Testing and Maintenance Report.

13.2.3.3.5.1 An inspection, testing, and maintenance report Annex G, Exhibit A entitled "Class I System Five-Year Test Report", or Annex G,

Exhibit B entitled "Class II, Class III, and Combined Systems Test Report", or similar report approved by the AHJ, shall be provided to the property owner or agent within fourteen days after the inspection, testing, and maintenance date.

13.2.3.3.5.2 An electronic copy of the unsatisfactory test report shall be submitted to the AHJ within five working days of the inspection, testing, and maintenance date. Submittals of satisfactory inspection, testing, and maintenance report shall be determined by the AHJ.

[Eff ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(Reformatted this amendment to fit in between 13.2.3.3 and 13.2.3.4. Consistent methods of system's identification and reporting to the AHJ are the objectives.)**

§12-45.4-48 Existing Systems. Sections 13.2.3.4.3 and 13.2.3.4.4 are added to read as follows: 13.2.3.4.3 Table 13.2.3.4.3A entitled "Fire Protection Systems Reference Dates" may be used as a reference for applicable codes and standards in effect when the building was permitted.

13.2.3.4.4 Fire department connection gaskets shall be replaced with new gaskets during the required inspection, testing and maintenance of the system. [Eff ] (Auth: HRS §132-16)(Imp: HRS §132-16; SLH 2014, Act 165)

**Table 13.2.3.4.3A  
Fire Protection Systems Reference Dates**

<b>Building Permit Date</b>	<b>Codes</b>	<b>NFPA References</b>
All Buildings up to March 15, 1988	Ordinance 4598 (June 14, 1976) and the "Rules of the Fire Department City and County of Honolulu on Matters Related to the Testing of Fire Extinguishing Systems" (January 12, 1977). 1967 UBC Vol.1	NFPA 13
March 16, 1988 to July 20, 1992	1985 Uniform Fire Code Appendix III-A and referenced NFPA standards	<p><b>WATER-BASED SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 25 - Water-Based Fire Protection Systems - Not Applicable</li> <li>2. NFPA 13A – Recommended Practice for the Care and Maintenance of Sprinkler System - 1978 Edition. Referenced by 1985 UFC Standard, Appendix B.</li> <li>3. NFPA 15 - Water Spray Fixed Systems for Fire Protection- 1979 Edition. As referenced by 1985 UFC Standard, #79-2</li> </ol>
		<p><b>OTHER-BASED SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 11 - Low-Expansion Foam – 1983 Edition</li> <li>2. NFPA 11A - Medium-and High-Expansion Foam Systems - 1983 Edition</li> <li>3. NFPA 12 - Carbon Dioxide Extinguishing Systems - 1985 Edition</li> <li>4. NFPA 12A - Halon 1301 Fire Extinguishing Systems - 1980 Edition</li> <li>5. NFPA 17 - Dry Chemical Extinguishing Systems - 1985 Edition</li> <li>6. NFPA 96 - Removal of Smoke and Grease Laden Vapors from Commercial Cooking Equipment - 1984 Edition</li> </ol>

<p>July 21, 1992 to October 9, 2002</p>	<p>1988 Uniform Fire Code Appendix III-C and referenced NFPA standards</p>	<p><b>WATER-BASED SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. 1988 Uniform Fire Code - Appendix III-C (Testing Fire-Extinguishing Systems, Standpipes and Combination Systems) <del>as amended</del>.</li> <li>2. NFPA 13A – Recommended Practice for the Care and Maintenance of Sprinkler Systems - 1978 Edition. As referenced by 1985 UFC Standards, Appendix B.</li> <li>3. NFPA 15 - Water Spray Fixed Systems - 1988 UFC Standards (Volume II) which references NFPA 15, 1979 Edition with amendments. NOTE: The 1988 NFC references the 1985 Edition.</li> </ol>
		<p><b>OTHER SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 11 - Foam Extinguishing Systems - 1988 UFC Standards (Volume II) which references NFPA 11, 1978 Edition with amendments.</li> <li>2. NFPA 11A - Medium and High-Expansion Foam Systems - 1988 Edition.</li> <li>3. NFPA 12 - Carbon dioxide Extinguishing Systems - 1985 Edition.</li> <li>4. NFPA 12A - Halon 1301 fire Extinguishing Systems - 1987 Edition.</li> <li>5. NFPA 17 - Dry Chemical Extinguishing Systems - 1985 Edition.</li> <li>6. NFPA 17A - Wet Chemical Extinguishing Systems - 1986 Edition.</li> <li>7. NFPA 96 - Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment - 1987 Edition.</li> </ol>

<p>October 10, 2002 to January 1, 2010</p>	<p>1997 Uniform Fire Code Appendix III-C and referenced NFPA standards</p>	<p><b>WATER-BASED SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 25 - Water-Based Fire Protection Systems - 1997 UFC Appendix Standard A-III-C-1 (Volume II) which references and amends NFPA 25, 1992 Edition</li> <li>2. NFPA 15 - Water Spray Fixed Systems - 1997 UFC Standards (Volume II) which references NFPA 15, 1990 Edition</li> </ol>
		<p><b>OTHER-BASED SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 11 - Low-Expansion Foam - 1997 UFC Standards (Volume II) which references NFPA 11, 1988 Edition</li> <li>2. NFPA 11A - Medium-and High-Expansion Foam Systems - 1994 Edition</li> <li>3. NFPA 12 - Carbon Dioxide Extinguishing Systems - 1993 Edition</li> <li>4. NFPA 12A - Halon 1301 Fire Extinguishing Systems - 1997 Edition</li> <li>5. NFPA 17 - Dry Chemical Extinguishing Systems - 1994 Edition</li> <li>6. NFPA 17A - Wet Chemical Extinguishing Systems - 1994 Edition</li> <li>7. NFPA 96 - Ventilation Control and Fire Protection of Commercial Cooking Operations - 1994 Edition</li> <li>8. NFPA 2001 - Clean Agent Fire Extinguishing Systems - 1996 Edition</li> </ol>
		<p><b>FIRE ALARM SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 72 – Installation, Maintenance, and Use of Fire-Protection Signaling Systems -1997 UFC Standard 10-2 which references NPFA 72, 1993 Edition</li> </ol>

<p>January 2, 2010 to July , 2014</p>	<p>Hawaii State Fire Code (NFPA 1, 2006 edition) and referenced NFPA standards</p>	<p><b>WATER-BASED SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 15 – Standard for Water Spray Fixed Systems for Fire Protection, 2001 Edition</li> <li>2. NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2002 Edition.</li> </ol> <p><b>OTHER-BASED SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 11 – Standard for Low-, Medium-, and High-Expansion Foam - 2005 Edition</li> <li>2. NFPA 12 – Standard on Carbon Dioxide Extinguishing Systems, 2005 Edition</li> <li>3. NFPA 12A – Standard on Halon 1301 Fire Extinguishing Systems, 2004 Edition</li> <li>4. NFPA 17 – Standard for Dry Chemical Extinguishing Systems, 2002 Edition</li> <li>5. NFPA 17A - Standard for Wet Chemical Extinguishing Systems, 2002 Edition</li> <li>6. NFPA 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2004 Edition</li> <li>7. NFPA 2001 - Standard on Clean Agent Fire Extinguishing Systems, 2004 Edition</li> </ol> <p><b>FIRE ALARM SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 72 – National Fire Alarm Code, 2002 Edition</li> </ol>
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July 2014 to Present	Hawaii State Fire Code (NFPA 1, 2012 edition) and referenced NFPA standards	<p><b>WATER-BASED SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 15 – Standard for Water Spray Fixed Systems for Fire Protection, 2012 Edition</li> <li>2. NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2011 Edition.</li> </ol>
		<p><b>OTHER-BASED SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 11 – Standard for Low-, Medium-, and High-Expansion Foam - 2010 Edition</li> <li>2. NFPA 12 – Standard on Carbon Dioxide Extinguishing Systems, 2011 Edition</li> <li>3. NFPA 12A – Standard on Halon 1301 Fire Extinguishing Systems, 2009 Edition</li> <li>4. NFPA 17 – Standard for Dry Chemical Extinguishing Systems, 2009 Edition</li> <li>5. NFPA 17A - Standard for Wet Chemical Extinguishing Systems, 2009 Edition</li> <li>6. NFPA 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2011 Edition</li> <li>7. NFPA 2001 - Standard on Clean Agent Fire Extinguishing Systems, 2012 Edition</li> </ol>
		<p><b>FIRE ALARM SYSTEMS</b></p> <ol style="list-style-type: none"> <li>1. NFPA 72 – National Fire Alarm Code, 2010 Edition</li> </ol>

**(The references in exhibit E provide NFPA Standards and editions corresponding to the permitted date of the building. Exhibit E was inserted as a table in the main body of the document, NOT in the annex (Table 13.2.3.4.3A).**

§12-45.4-49 Existing Assembly Occupancies. Section 13.3.2.8 is deleted in its entirety. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing assembly occupancies that were constructed to requirements in the building code of that time.)**

§12-45.4-50 Existing Educational Occupancies. Section 13.3.2.10 is deleted in its entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing educational occupancies that were constructed to requirements in the building code of that time.)**

§12-45.4-51 Existing Health Care Occupancies. Section 13.3.2.12 is deleted in its entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing health care occupancies that were constructed to requirements in the building code of that time.)**

§12-45.4-52 Existing Detention and Correctional Facilities. Section 13.3.2.14 is deleted in its entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing detention and correctional facilities that were constructed to requirements in the building code of that time.)**

§12-45.4-53 Existing Hotels and Dormitories. Section 13.3.2.16 is deleted in its entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing hotels and**

**dormitories that were constructed to requirements in the building code of that time.)**

§12-45.4-54 Existing Residential Board and Care Facilities. Section 13.3.2.22 is deleted in its entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing residential board and care facilities that were constructed to requirements in the building code of that time.)**

§12-45.4-55 Existing Mercantile Occupancies. Section 13.3.2.24 is deleted in its entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing mercantile occupancies that were constructed to requirements in the building code of that time.)**

§12-45.4-56 Existing High-Rise Buildings. Section 13.3.2.26.2 is deleted in its entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing high-rise buildings that were constructed to requirements in the building code of that time.)**

§12-45.4-57 Inspection, Testing and Maintenance. Section 13.3.3.2.1, 13.3.3.2.2, 13.3.3.2.3, 13.3.3.2.4, 13.3.3.2.5, 13.3.3.2.6, 13.3.3.2.7, and 13.3.3.2.8 are added to read as follows: 13.3.3.2.1 Table 13.2.3.4.3A entitled "Fire Protection Systems Reference Dates" may be used as a reference for applicable codes and standards in effect when the building was permitted. [Eff \_\_\_\_\_ ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(This is useful information for the licensed COF and the AHJ in determining testing requirements. The fire code committee discussed this issue and determined to include "Exhibit E" as a table in the main body of the document (Table 13.2.3.4.3A) CORRECTED by moving to appropriate section 10/17/17)**

13.3.3.2.2 Pretest.

13.3.3.2.3 The following requirements apply to all pretesting procedures:

(a) An air test shall be conducted on the piping between the fire department connection and the sprinkler riser;

(b) The piping shall be filled with twenty-five psi of air and held for fifteen minutes. No drop in pressure is allowed;

(c) An air test need not be conducted when the piping is above ground and less than five feet in length; and

(d) Automatic fire sprinkler system without a fire department connection does not require an air test.

13.3.3.2.4 Inspection, testing, and maintenance label.

13.3.3.2.5 It shall be unlawful to inspect, test, or maintain any automatic fire sprinkler system without providing an approved label signifying successful testing of the system shall be provided when inspecting, testing, or maintaining any automatic fire sprinkler system.

(1) Satisfactory systems shall have an approved inspection, testing, and maintenance label affixed to the fire department connection and the sprinkler riser. Automatic fire sprinkler systems that do not have a fire department connection shall have the label affixed to the riser.

(2) The label shall indicate the type of system, month and year the system was tested; certificate of fitness holder's name and number; and company's name, address and contact information.

(3) The label shall be clearly visible and punched with no more than one year and one month.

13.3.3.2.6 The fire department shall be verbally notified immediately of any system determined to be out of service. Systems that cannot be utilized for firefighting operations shall have an inoperable system sign affixed to the fire department connection. The sign shall remain in place until all repairs have been made and a satisfactory inspection, test, and maintenance system test is completed.

13.3.3.2.7 Inspection, testing, and maintenance report. Annex G, Exhibit C, entitled "Automatic Fire Sprinkler System Annual Test Report",

or similar report approved by the AHJ, shall be provided to the property owner or agent within fourteen days after the test.

13.3.3.2.8 An electronic copy of the unsatisfactory report shall be submitted to the AHJ within five working days. Submittal of a satisfactory inspection, testing and maintenance report will be determined by the AHJ. [Eff ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(Consistent methods of system identification and reporting to the AHJ are the objectives.)**

§12-45.4-58 Periodic Inspection, Testing, and Maintenance. Section 13.4.8 is amended to read as follows: 13.4.8 Periodic Inspection, Testing, and Maintenance. Fire pumps shall be inspected, tested, and maintained in accordance with NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems* and this section.

**(Consistent methods of system's identification and reporting to the AHJ are the objectives of this section.)**

§12-45.4-59 Periodic Inspection, Testing, and Maintenance. Section 13.4.8 is amended to add sections 13.4.8.1 and 13.4.8.2 as follows: 13.4.8.1 Inspection, Testing, and Maintenance Label. Satisfactory inspection, testing, and maintenance system's tests shall have an approved inspection label affixed to the fire pump controller. The label shall follow the guidelines found in the water-based fire extinguishing systems inspection labels, tags, and collars.

13.4.8.2 Inspection, testing and maintenance report. Annex G, Exhibit D, entitled "Fire Pump Annual Test Report", or similar report approved by the AHJ shall be provided to the property owner or agent within fourteen days after the test. [Eff ] (Auth: RCH §4-105; ROH §1-9.1; HRS §132-2)(Imp: HRS §132)

**(ITM per NFPA 25 helps ensure that the pump is always ready for service. Amended Sections 13.4.8.1 and 13.4.8.2 ensures consistent testing identification and reporting.)**

§12-45.4-60 Inspection, Testing and Maintenance Section 13.5.4.2 is amended to read as follows: 13.5.4.2 A private fire service main installed in accordance with this code or the AHJ's water department shall

be inspected, tested and maintained in accordance with NFPA 25 and the AHJ's water department's inspection, testing, and maintenance standards. [Eff ] (Auth: RCH §4-10; ROH §1-9.1; HRS §132-2)(Imp: HRS §132)

**(This amendment adds the water department's ITM standards to ensure private hydrants are maintained to same standards as the public hydrants.**

§12-45.4-61 Inspection, Testing and Maintenance. Sections 13.5.4.3, 13.5.4.4, 13.5.4.5, 13.5.4.6, and 13.5.4.7 are added to read as follows: 13.5.4.3 Testing. An annual inspection, testing, and maintenance shall be conducted by the certificate of fitness holder. If, during use, the hydrant does not perform adequately, it shall be tested and, if needed, restored to its proper operation by a licensed certificate of fitness holder.

**(Regardless if there were no contractual provisions to conduct ITM annually or after each use , the hydrant needs to be ITM by a COF holder when deficiencies are encountered. NFPA 25 states after each use, but their ITM is not that comprehensive compared to BWS.)**

13.5.4.4 Fire hydrants that fail the inspection, test, and maintenance shall have a readily visible, attached "OUT OF SERVICE" sign. The sign shall have a yellow background with black letters and be constructed of wood, metal, or plastic. The letters shall be a minimum height of three inches and a minimum width of one fourth of an inch stroke. The sign shall remain in place until all repairs have been made and a satisfactory hydrant inspection, test and maintenance is completed.

13.5.4.5 The fire department shall be verbally notified immediately of any fire hydrant determined to be out of service. Fire hydrants deemed to be permanently inoperable or unusable shall be replaced.

13.5.4.6 Inspection, test, and maintenance report. An inspection, test, and maintenance report Annex G, Exhibit E entitled "Wet Barrel Hydrant Maintenance Report" or Annex G, Exhibit F entitled "Dry Barrel Hydrant Maintenance Report" or similar report approved by the AHJ, shall be provided to the property owner or agent within fourteen days after the test.

13.5.4.7 An electronic copy of the unsatisfactory test report shall be submitted to the AHJ within five working days of the test. The AHJ shall determine if the submittal of a satisfactory inspection, test, and maintenance report will be required. [Eff ] (Auth: RCH §4-105; ROH §1-9.1; HRS §132-2)(Imp: HRS §132)

**(A one-year annual ITM ensures the hydrant's operational use. This section applies consistent identification, reporting, and notification to the AHJ and the owner.)**

§12-45.4-62 Annual Maintenance Record Keeping. Section 13.6.4.3.4.1.1 is amended to read as follows: The tag or label, as a minimum, shall identify the following:

- (1) Month and year the maintenance was performed;
- (2) Type of portable fire extinguisher tested;
- (3) Certificate of fitness holder's name and number; company name, address and contact information;
- (4) Be yellow, at least two and one-fourth of an inch in width, three and one-fourth of an inch in length, and clearly visible without opening any cabinets;
- (5) Be constructed of a durable material approved by the AHJ;
- (6) Be punched with no more than one year and one month of the date of service;
- (7) Not obstruct the portable fire extinguisher classification or instructions for use.
- (8) The previous tag or label shall be removed;

[Eff ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(Required information is needed to identify COF holder's name and provide uniform tag labeling & information. This also amends the previous amendment by replacing it, hence the renumbering.)**

§12-45.4-63 Six-Year Internal Examination Label. Section 13.6.4.3.6.5.3 is amended to read as follows: 13.6.4.3.6.5.3 The 6-year internal examination label shall, as a minimum, entail the following:

- (1) Removing the previous 6-year internal examination label;
- (2) Indicating the month and year the 6-year internal examination was performed;
- (3) Certificate of fitness holder's name and number;

- (4) Certificate of fitness holder's company name, address and contact information;
- (5) Type of portable fire extinguisher tested;
- (6) Be silver or white and at least two and one fourth of an inch in width and three and one-fourth of an inch in length;
- (7) Not obstruct the portable fire extinguisher classification, instructions for portable fire extinguisher use, or manufacturer's labels. [Eff \_\_\_\_\_ ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(Additional information needed to identify COF holder and provide uniform tag labeling and information. This also amends the previous amendment by replacing it, hence the renumbering.)**

§12-45.4-64 Maintenance and Recharge Service Collar. Section 13.6.4.10.3 is amended to read as follows: 13.6.4.10.3 The verification-of-service collar shall, as a minimum:

- (1) Indicate the month and year the examination was performed;
  - (2) Display the certificate of fitness holder's name and number;
  - (3) Display the certificate of fitness holder's company name, address and contact information;
  - (4) Be a single circular piece of uninterrupted material forming a hole of a size that does not permit the collar assembly to move over the neck of the container unless the valve is completely removed;
  - (5) Not interfere with the operation of the fire extinguisher.
- [Eff \_\_\_\_\_ ] (Auth: HRS §132-16)(Imp: HRS §132-16)

**(Clarifies information needed on the service collar. This also amends the previous amendment by replacing it, hence the renumbering.) The collar was a certain circumference to ensure the extinguisher stem was physically removed & not slipped over the stem, the contents emptied & the cylinder pressure tested. Need to check this.**

§12-45.4-65 Occupant Notification. Section 13.7.1.9.4 is amended to read as follows: 13.7.1.9.4 Where permitted by Chapter 11 through Chapter 43 of NFPA 101, a positive alarm sequence shall be permitted, provided that it is in accordance with NFPA 72. The following additional requirements shall also apply:

1. An automatic fire sprinkler system installed in conformance with the building code shall be provided throughout the building or facility.

2. Written fire emergency procedures and an evacuation plan for the building or facility shall be reviewed by the AHJ prior to approval testing. The procedures and plan shall include, but not be limited to, immediate notification to the fire department, use of primary and secondary exits, use of fire protection appliances for the building(s) or facility(ies).

3. Trained personnel shall respond to emergencies on a 24- hour basis. The staff shall be instructed in fire emergency procedures and the use and operation of in-house fire appliances. Documentation of such training shall be maintained and filed on the premises.

4. Immediate notification of the fire department shall take place upon activation of any fire alarm initiating device.

5. The AHJ shall conduct a test of the positive alarm sequence prior to implementation.

6. The AHJ may disapprove or rescind approval of the positive alarm sequence of the fire alarm system if all of the above requirements are not met and shall require the fire alarm system to be reprogrammed to meet a general alarm notification at the owner's expense.

[Eff \_\_\_\_\_ ](Auth: HRS §132-3)(Imp: HRS §132-3)

**(The section changed from 13.7.1.4.10.4 in the 2012 edition to section 13.7.1.9.4 in the 2015 edition. The 2015 edition references Chapters 11-43 not 11-42. The additional items for positive alarm sequence are above and beyond what NFPA 72 requires. This was added as a Honolulu amendments to the 2012. This is now added to the 2015 State code. Items 5 and 6 shown deleted were part of the 2012 Honolulu amendments, which are in the 2015 NFPA 72. This was in the previous state fire code. It allows with conditions, an exception to the requirement that fire alarm initiating devices produce an audible signal throughout the entire building.)**

§12-45.4-66 New and Existing Lodging and Rooming Houses. Sections 13.7.2.14.1, 13.7.2.14.2, 13.7.2.14.3 and 13.7.2.14.4 are deleted in their entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This section reference changed from 13.7.2.13 & 13.7.2.13.1 in the 2012 edition, which was deleted entirely, to 13.7.2.14.1.1 & 13.7.2.14.2 in the 2015 edition. 13.7.2.14.3 & 4 are deleted because they are also related to the requirement for a fire alarm system. The smoke alarm requirement in 13.7.2.14.5 remains in the code as it did in the 2012 edition as section 13.7.2.13.3. This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing lodging and rooming houses that were constructed to requirements in the building code of that time.)**

§12-45.4-67 Existing Apartment Buildings. Sections 13.7.2.18.1, 13.7.2.18.2, 13.7.2.18.3 and 13.7.2.18.4 are deleted in their entirety. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This section reference changed from 13.7.2.12.1 & 2 in the 2012 to 13.7.2.18.1 & 2 in the 2015 edition. 13.7.2.18.3 & 4 are deleted because they are also related to the requirement for a fire alarm system. The smoke alarm requirement in 13.7.2.18.5 remains in the code as it did in the 2012 edition as section 13.7.2.12.3. This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing apartment buildings that were constructed to requirements in the building code of that time.)**

§12-45.4-68 Existing Mercantile Occupancies. Section 13.7.2.24 is deleted in its entirety. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(13.7.2.18 was the reference in 2012, in the 2015 it is 13.7.2.24. This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing mercantile occupancies that were constructed to requirements in the building code of that time. This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing mercantile occupancies that were constructed to requirements in the building code of that time.)**

§12-45.4-69 Existing Business Occupancies. Section 13.7.2.26 is deleted in its entirety. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(13.7.2.20 was the reference in 2012 edition. In the 2015 edition it is 13.7.2.26. This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing business occupancies that were constructed to requirements in the building code of that time. This was in the previous state fire code. It recognizes that this code does not retroactively apply to existing business occupancies that were constructed to requirements in the building code of that time.)**

§12-45.4-70 Inspection, Testing, and Maintenance Documentation. Section 13.7.3.2.4 is amended by adding section 13.7.3.2.4.1.1 to read as follows: 13.7.3.2.4.1.1 The county fire department shall be given a seventy-two hour notification prior to a scheduled inspection, testing, maintenance or retesting of any fire alarm systems within their respective jurisdiction.

§12-45.4-71 Inspection, Testing, and Maintenance Documentation. Sections 13.7.3.2.4.4.1, 13.7.3.2.4.4.2, 13.7.3.2.4.4.3, and 13.7.3.2.4.4.4 are added to read as follows: 13.7.3.2.4.4.1 Labels. ~~or labels~~ Fire alarm systems passing an annual inspection, testing, and maintenance test shall have an approved label affixed to the annunciator panel or, if not present, the fire alarm system control panel in accordance with section 13.7.3.2. Information on the ~~tag or label~~ label shall, as a minimum, entail the following:

- (1) Removal of the previous label;
- (2) Indicate the month and year the satisfactory test was performed;
- (3) Certificate of fitness holder's name and number;
- (4) Certificate of fitness holder's company name, address and contact information;
- (5) Be yellow, at least two and one-fourth of an inch in width, and three and one-fourth of an inch in length;
- (6) Be clearly visible without obstructing the visibility or operation of the annunciator panel or, if not present, fire alarm system control panel;
- (7) The label shall be clearly visible and punched with no more than one year and one month.

13.7.3.2.4.4.2 Fire alarm systems failing an annual inspection, test, and maintenance test shall leave the expired inspection tag or label in place on the annunciator panel or, if not present, the fire alarm system control panel until the system is repaired.

13.7.3.2.4.4.3 The AHJ and the building owner shall be verbally notified immediately when a fire alarm system becomes inoperable. Alternative notification and response plans shall be implemented after approved by the AHJ until the fire alarm system is fully operational.

13.7.3.2.4.4.4 Annex G, Exhibit G entitled "Fire Alarm System Inspection, Maintenance, and Testing Report" or similar report approved by the AHJ shall be provided to the property owner or agent within fourteen days after a satisfactory test. [Eff \_\_\_\_\_ ] (Auth: HRS §132-16)(Imp: HRS §132-16; SLH 2014, Act 165)

**(This adds additional information to the tag or label and expedites the notification to the AHJ of an inoperable fire alarm system. Exhibit B became Annex G)**

§12-45.4-72 Inspection, Testing, and Maintenance Documentation Section 13.7.3.2.4.7 is amended to add to read: Tag. Section 13.7.3.2.4.7 A tag shall be placed on the fire alarm panel when tested in accordance with NFPA 72. Information on the tag shall include the date of testing, testing company and contact information, technician performing the test and certificate of fitness number, and that the test was satisfactory. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was a consolidated county amendment from the NFPA Fire Code 2006 edition into the 2012 edition. Sections changed from 2012 edition to 2015. This moved from 13.7.3.2.5 to 13.7.3.2.4.7. The reference in the amendment to 13.7.3.2 is incorrect. Should be NFPA 72 Chapter 14.)**

§12-45.4-72 Manually Activated Alarm Initiating Devices. Section 13.7.3.3.8.4 is amended to add a new sentence at the end to read as follows: The location of manual fire alarm boxes may be modified by the AHJ. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(Section 13.7.3.3.6 in the 2012 edition is now 13.7.3.3.8.4 in the 2015 edition. This amendment allows alternate locations for fire**

**alarm pull stations by the AHJ. An example is the agreement between the State Department of Education and the State Fire Council to allow pull stations to be placed inside of classrooms with identification signs outside of those classrooms. The justification was to reduce vandalism and false activations with the rooms being accessible during school hours. This amendment allows alternate locations for fire alarm pull stations by the AHJ. An example is the agreement between the State Department of Education and the State Fire Council to allow pull stations to be placed inside of classrooms with identification signs outside of those classrooms. The justification was to reduce vandalism and false activations with the rooms being accessible during school hours.)**

§12-45.4-73 Other Fire Protection Systems. 13.8 is amended to read as follows: 13.8. Other Fire Protection Systems. Where other fire protection systems are required to be installed by the provisions of this code, or are installed with the approval of the AHJ as an alternative or equivalency, the design and installation of the system shall comply with the appropriate standards listed in Table 13.8. The systems shall be inspected, tested, and maintained in accordance with the appropriate NFPA standard.

**(Appropriate NFPA standards describe maintenance requirements. The reference in the code to Section 10.4 is a reference to Building Evacuation which is incorrect.)**

13.8.1 Inspection, testing, and maintenance label. Other fire protection systems satisfactorily passing an inspection, testing, and maintenance test shall have an approved label affixed to the manual activation device or, if not present, actuator valve to the extinguishing agent. The label shall, as a minimum, entail the following:

- (a) Removal of the previous label;
- (b) Indicate the type of system, month and year the system was tested;
- (c) Certificate of fitness holder's name and number;
- (d) Certificate of fitness holder's company name, address and contact information;
- (e) Be yellow, at least two and one-fourth of an inch in width, and three and one-fourth of an inch in length.

- (f) Be constructed of a durable material approved by the AHJ;
- (g) Be clearly visible without obstructing the visibility or operation of the system;
- (h) Be punched with no more than one year and one month.

13.8.2 Hydrostatic Testing. Every twelve years from the date of manufacture, stored pressure extinguishing agent cylinders shall be hydrostatically tested;

13.8.3 Hydrostatic Testing Label. Stored pressure extinguishing agent cylinders satisfactorily passing a twelve-year hydrostatic test shall, as a minimum, have a label attached to the cylinder as follows:

- (a) Removal of the previous label;
- (b) Indicate the type of system, month and year the system was tested;
- (c) Certificate of fitness holder's name and number;
- (d) Certificate of fitness holder's company name, address and contact information;
- (e) Be yellow, at least two and one-fourth of an inch in width, and three and one-fourth of an inch in length.
- (f) Be constructed of a durable material approved by the AHJ;
- (g) Be clearly visible without obstructing the visibility or operation of the system;
- (h) Be punched with no more than one year and one month.

13.8.4 The fire department shall be verbally notified immediately of any systems determined to be out of service. Systems that cannot be utilized for firefighting operations shall have an inoperable system sign affixed to the manual activation device. The sign shall remain in place until all repairs have been made and a satisfactory system test is completed.

13.8.5 Inspection, Testing, and Maintenance Report. Annex G, Exhibit H, entitled "Other Fire Protection System Inspection, Testing, and Maintenance Report" or similar report approved by the AHJ shall be provided to the property owner or agent within fourteen days after the test.

13.8.6 Inspection report. An electronic copy of the unsatisfactory test report shall be submitted to the AHJ within five working days. The AHJ shall determine if the submittal of a satisfactory test report will be required.

13.8.7 Table 13.2.3.4.3A entitled "Fire Protection Systems Reference Dates" may be used as a reference for applicable codes and standards in effect when the building was permitted.

[Eff \_\_\_\_\_ ] (Auth: RCH §4-105; ROH §1-9.1; HRS §132-2)(Imp: HRS §132)

**(Table 13.8 lists the various NFPA standards for the different types of systems. Exhibits provide additional system information. It also adds additional information to the tag or label and expedites the notification to the AHJ of a failed system.)**

§12-45.4-75 Application. Section 14.1 is amended to read as follows: 14.1 Application. Means of egress in existing buildings shall comply with this Code and NFPA 101, Life Safety Code. The provisions of this chapter do not apply for new construction. For new construction see the building code. Existing buildings shall be maintained to meet the requirements of the building code at the time the structure was built, unless specifically indicated for existing facilities. Provisions in this chapter are provided for maintenance purposes.

Exception: Stairway marking requirements set forth in Section 10.12.3 shall apply to new and existing construction.

[Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. The reference to 14.6.4.1 in the exception of the NFPA 1 Fire Code, 2006 edition, was changed to 10.12.3 to match the appropriate section in the 2012 edition. Maintenance of building and fire protection systems and appliances are the enforceable objectives of the fire code. NFPA 101 is not a fire or building code, but is concerned with the protection of building occupants. The application to existing buildings eliminates conflicts with building code requirements for new construction. There are about 1500 sections that are extracted from NFPA 101 throughout NFPA 1 Fire Code, but there are other important provisions that are not. This means unless specifically adopted they would not apply. In addition, "grandfathering" in building codes leaves a loophole that NFPA 101 closes when imminent danger exists.)**

§12-45.4-76 Screen Door Assemblies and Storm Door Assemblies  
Section 14.5.1.4 is amended by adding an exception at the end to read as

follows: Exception: Double-acting screen doors used in conjunction with exit doors having panic hardware in school cafeteriums do not need to comply with this provision. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. This allows double acting screen doors to be allowed in school cafeteriums for egress. It was allowed in previous building code amendments to allow doors that swung in both directions and provided additional ventilation for Hawaii's climatic conditions.) The section heading is amended to mirror NFPA 1 "Screen Door Assemblies and Storm Door Assemblies".)**

§12-45.4-77 Locks, Latches, and Alarm Devices. Section 14.5.2.13 is added to read as follows: 14.5.2.13 In accordance with the building code, security gates may be permitted across corridors or passageways in school buildings if there is a readily visible durable sign on or adjacent to the gate, stating 'THIS GATE IS TO REMAIN SECURED IN THE OPEN POSITION WHENEVER THIS BUILDING IS IN USE'. The sign shall be in letters not less than one inch high on a contrasting background. The use of this exception may be revoked by the building official for due cause. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. This was allowed in previous editions of the building code as amended, to provide security to corridors and passageways after regular school hours, and still provide clear egress width for occupants when classes are in session. The section heading is amended to mirror NFPA 1 "Locks, Latches, and Alarm Devices".)**

§12-45.4-78 Occupant Load Increases. Section 14.8.1.3.1 is amended to read as follows: 14.8.1.3.1 The occupant load in any building or portion thereof shall be allowed to be increased from the occupant load established for the given use in accordance with the building code where all other requirements of this Code are also met, based on such increased occupant load. Occupant load increases shall be approved by the AHJ. The fire department shall be notified of any increase in occupant load. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It allows discretionary approval by the AHJ, most likely by building/fire officials, for occupant load increases when circumstances or other elements are evaluated to determine whether approval may be granted or not, without compromising life safety. It also provides for fire department notification.)**

§12-45.4-79 Occupant Load Increases. Section 14.8.1.7 is added to read as follows: 14.8.1.7 The number of persons in a building or portion thereof shall not exceed the amounts determined as specified in the building code. [Eff \_\_\_\_\_] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It requires occupant loads to be determined by the building code.)**

§12-45.4-80 Egress Capacity. Section 14.8.3.1 is amended to read as follows: 14.8.3.1 Egress capacity for approved components of means of egress shall be based on the capacity factors shown in the building code. [Eff \_\_\_\_\_] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It requires egress capacities to be determined by the building code.)**

§12-45.4-81 Special Signs. Section 14.14.8 is amended to add as follows: 14.14.8.4 At all elevator locations on each floor level above and below the floor of exit discharge, there shall be displayed in a conspicuous location a sign reading: 'IN CASE OF FIRE USE EXIT STAIRWAYS. DO NOT USE ELEVATORS'. Lettering shall be not less than 5/8-inch high.

Exception: Signs at least 2-3/4-inches X 2-1/4-inches in overall size with legible wording and approved by the AHJ, may be used as an alternate and shall be affixed at each elevator call button assembly.

Elevator service companies shall have their name and telephone number in the elevator key box. [Eff \_\_\_\_\_] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. This adds a requirement for location and warning signs at every level of each elevator lobby.) The section heading is amended to mirror NFPA 1 “Special Signs”.)**

§12-45.4-82 Water Supply. Section 16.4.3.1.1 is amended to read as follows: 16.4.3.1.1 A water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material is present. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This is a new amendment. It changes as soon as combustible material “accumulates” to “is present” to clarify that a water supply is required as soon as combustible material exists on the property during construction.)**

§12-45.4-83 Required Access. Section 18.2.3.1.3 is amended to read as follows: 18.2.3.1.3 The provisions of 18.2.3.1 through 18.2.3.2.2.1 shall be permitted to be modified by the AHJ where any of the following conditions exists:

1. Not more than two one- and two-family dwellings protected by an approved automatic sprinkler system in accordance with Section 13.1
2. Not more than two existing one- and two-family dwellings
3. Private garages having an area not exceeding 1000 ft<sup>2</sup>
4. Carports having an area not exceeding 1000 ft<sup>2</sup>
5. Agricultural buildings having an area not exceeding 1000 ft<sup>2</sup>
6. Sheds and other detached buildings having an area not exceeding 1000 ft<sup>2</sup>

[Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This is a new amendment. It changes (1) and (2) to “Not more than two” one- and two-family dwellings and existing one- and two-family dwellings to limit its application. Changed the 400’s to 1000 sq. ft. in items 3-6 since MFD and Honolulu have county amendments. 400 is too small it is patterned off a U occupancy type building from the building code.)**

§12-45.4-84 Dimensions. Section 18.2.3.4.1.1 is amended to read as follows: 18.2.3.4.1.1 Fire department access roads shall have an

unobstructed width of not less than 20 ft (6.1 m) or as approved by the AHJ. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It requires a clear 20 foot width and allows modifications approved by the fire department for certain circumstances.)**

§12-45.4-85 Dimensions. Section 18.2.3.4.1.2 is amended to read as follows: 18.2.3.4.1.2 Fire department access roads shall have an unobstructed vertical clearance of not less than 13 ft 6 in. (4.1 m) or as approved by the AHJ. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It requires a 13 feet 6 inch vertical height clearance and allows approved modifications by the fire department for certain circumstances.)**

§12-45.4-86 Bridges or Culverts. Section 18.2.3.4.5.1 is amended to read as follows: 18.2.3.4.5.1 When a bridge or culvert is required to be used as part of a fire apparatus access road, it shall be constructed and maintained in accordance with county requirements. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. County requirements follow national standards to support the weight of fire department apparatus. The term "Culverts" was added because they are not addressed in the national code.)**

§12-45.4-87 Bridges or Culverts. Section 18.2.3.4.5.2 is amended to read as follows: 18.2.3.4.5.2 The bridge or culvert shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. County requirements follow national standards to support the weight of fire department apparatus. The term "Culverts" was added because they are not addressed in the national code.)**

§12-45.4-88 Water Supplies. Section 18.3.1 is amended to read as follows: 18.3.1 A water supply approved by the county, capable of

supplying the required fire flow for fire protection shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 ft. (45.72 m) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ. For on-site fire hydrant requirements see section 18.5. Exceptions:

1. When facilities or buildings, or portions thereof, are completely protected with an approved automatic fire sprinkler system, the provisions of section 18.3.1 may be modified by the AHJ.
2. When water supply requirements cannot be installed due to topography or other conditions, the AHJ may require additional fire protection as specified in section 18.3.1.1, as amended in this code.
3. When there are not more than two dwellings, or two private garages, carports, sheds and agricultural Occupancies, the requirements of section 18.3.1 may be modified by the AHJ.

[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. This allows similar exceptions to §12-45.3-81 when water supply requirements cannot be met by using alternative methods, such as automatic fire sprinklers. The reference in the previous amendment to 18.5.1 is revised to 18.5 since the annex was moved into the body of the code at 18.5)**

§12-45.4-89 Minimum Number of Fire Hydrants for Fire Flow. Section 18.5.4.1 is amended to read as follows: 18.5.4.1. The minimum number of fire hydrants needed to deliver the required fire flow for new buildings in accordance with Section 18.4 shall be determined in accordance with Section 18.5.4 or as approved by the AHJ.

[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the 2012, because it was in the previous state fire code and allowed consistent application of hydrant requirements for each county whether it is from a public or private water supply. In 2015, the annex E for Hydrant location and distribution was relocated into Section 18.5.1 which is preferred. But this revision allows the AHJ to accept the county water requirements.)**

§12-45.4-90 Testing and Maintenance. Section 18.5.5.1 is amended to read as follows: 18.5.5.1 Private water supply systems shall be tested and maintained in accordance with NFPA 25 Standard for the inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, or approved by the AHJ. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It allows fire departments, who normally have jurisdiction for private water supply requirements for testing and maintenance, to use either county or NFPA Standard 25 for approval. This changed from 18.5.4 in 2012 to 18.5.5.1 in 2015. The term “county requirements were deleted as unnecessary. Determination is deleted to be consistent with the rest of the code, the AHJ does not make the determination, they approve. Standard for the inspection, Testing, and Maintenance of Water-Based Fire Protection Systems,” was added to be consistent with this section in NFPA 1.)**

§12-45.4-91 Hydrants Out of Service. Section 18.5.9.1 is amended by adding a paragraph to read as follows: The AHJ shall be notified whenever any fire hydrant is placed out of service or returned to service. Owners of private property required to have hydrants shall maintain hydrant records of approval, testing, and maintenance. Records shall be made available for review by the AHJ upon request. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It allows additional requirements such as fire hydrant systems to be certified and approved before being placed into service, notification of the fire department when hydrants are placed out of service and owners of private hydrants to maintain records of approval, testing and maintenance. Section 18.5.6 in 2012 was changed to 18.5.9 in 2015. This will allow the engine company to preplan. This is consistent with 13.1.8. The reference to the county requirements is unnecessary since the AHJ already approves. The section heading is amended to mirror NFPA 1 “Hydrants Out of Service”.)**

§12-45.4-92 Nonmetallic Containers. Section 19.2.1.2.1 is amended by adding an exception at the end to read as follows:

Exception: Containers used by one- and two-family dwellings for refuse pickup. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It allows non-metallic rubbish containers for private residences and to not be fire rated if over the threshold. Private residences was changed to one- and two-family dwellings to be consistent with the defined term used to establish requirements throughout this code.)**

§12-45.4-93 Flame-Retardant Requirements. Section 20.1.2.1 is amended by adding a new sentence at the end to read as follows: A record of fire-resistant treatment shall be kept on the premises for review by the AHJ. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It adds a requirement for a record of fire-resistant treatment of decorative materials in assemblies to be kept on the premises for the fire department to verify. The section heading is amended to mirror NFPA 1 "Flame-Retardant Requirements".)**

§12-45.4-94 Means of Egress Inspection. Section 20.1.5.1.4 is added to read as follows: 20.1.5.1.4 A floor plan indicating the seating arrangements, location and width of exit ways and aisles shall be submitted to the AHJ for review for places of assembly with an occupant load of 300 or more persons. A copy of the plan shall be kept on display on the premises. An exit plan shall also be posted in a conspicuous location near the main entrance and shall be maintained in a legible condition by the building owner or agent.

The building owner or agent shall be responsible for the inspection before each show or event of all required means of egress from each part of the building, including stairways, egress doors and any panic hardware installed thereon, aisles and corridors. Passageways and similar elements of the means of egress shall be available for immediate use and free of all obstructions before each show or event. The building owner or agent shall inform all patrons of all required exit locations before each show or

event in places of assembly with an occupant load of 300 or more persons. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It adds requirements for the maintenance of exit ways and aisles for places of assembly with an occupant load of 300 or more persons. "Management" was changed to "building owner or agent" similar to use in section 20.1.5.1. The section heading is amended to mirror NFPA 1 "Means of Egress Inspection".)**

§12-45.4-95 Means of Egress Inspection. Section 20.1.5.1.5 is added to read as follows: 20.1.5.1.5 Authority to Stop Performance. Overcrowding and admittance of persons beyond the approved capacity of a place of assembly are prohibited. The AHJ, upon finding overcrowding conditions or obstructions in aisles, passageways or other means of egress, or upon finding a condition which constitutes an imminent danger, is authorized to cause the performance, presentation, spectacle or entertainment to be stopped until such conditions or obstruction is corrected. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It authorizes fire departments to prevent a potential hazard to life safety due to overcrowding. But this is not just overcrowding. It addresses obstructed exits or other imminent dangers, so the title was changed. Also "Menace to life" was changed to "imminent danger" to be consistent with 1.7.16 and 10.3.2 and 3.3.154.)**

§12-45.4-96 Open Flame Devices and Pyrotechnics. Section 20.1.5.3, Item (1) is amended to read as follows:

(1) Pyrotechnic special effect devices shall be permitted to be used on stages before proximate audiences for ceremonial or religious purposes, as part of a demonstration in exhibits, or as part of a performance, provided that all of the following criteria are met:

- (a) Precautions satisfactory to the AHJ are taken to prevent ignition of any combustible material.
- (b) Use of the pyrotechnic device complies with Section 65.3.
- (c) Use of pyrotechnic devices indoors shall only be allowed in buildings protected throughout with automatic fire sprinklers.
- (d) Use of pyrotechnic devices indoors shall only be allowed in

buildings where all fire and life safety systems are deemed appropriate as determined by the AHJ.

[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This amendment adds two additional requirements (c & d) in Item (1) for pyrotechnic special effects. 65.3 take you to 1126 which has requirement for approval by the AHJ to shut down which includes when systems are not deemed appropriate. There is no requirement they be used in a sprinklered building. So this is more restrictive with the sprinkler requirement.)**

§12-45.4-97 Open Flame Devices and Pyrotechnics. Section 20.1.5.3 is amended by adding items (7) and (8) to read as follows:

- (7) When approved by the AHJ, open-flame devices may be used by performers, provided adequate precautions are taken to prevent ignition of combustible materials. Such devices shall not be used except in areas protected by an automatic sprinkler system. In addition, a minimum 20 foot clearance to the viewing audience shall be provided, or an approved barrier shall be erected to prevent accidental release onto the viewing audience. Performances with fire shall provide a plan approved by the AHJ. The plan shall address fuel use and storage, device ignition, device usage and extinguishment procedures.
- (8) Portable heating equipment, not flue-connected, shall be allowed only as follows: Equipment fueled by small heat sources which can be readily extinguished by water, such as candles or alcohol-burning equipment (including solid alcohol) may be used provided adequate precautions approved by the AHJ are taken to prevent ignition of any combustible materials.

[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This amendment added additional requirement as a separate Item (7) to address the open flames associated with fire dancing. This provision is similar to Item (1) in the previous amendment, but fire dancing does not use pyrotechnic special effects. The beginning statement "when approved by the AHJ" could be used to prohibit the double knife event. The term "suitable non-combustible net" was changed to "approved barrier" because most nets are not non-combustible and some combustible nets could be suitable, this would also suggest a net or plexiglass as**

**suitable barrier. "Suitable" is not a defined term, but "approved" is. "Minimum" is added to the 20 foot clearance because in some cases the AHJ may want more (think of flaming hoola-hoop). The second to last sentence is revised for readability. Item (8) is for when portable heating equipment is used to fuel open flame devices. This is worded similar to 20.1.5.2.4 for cooking. "permitted" is changed to "allowed" because a permit is not required. "Satisfactory" is changed to "approved" to require approval by the AHJ. Items (7) and (8) were separate amendments in the previous state fire code; this year they were added as one amendment.)**

§12-45.4-98 Emergency Egress Drills. Section 20.2.4.2.3, item (1) is amended by adding a new exception at the end to read as follows:

Exception: Fire drills at high schools, middle schools and intermediate schools shall be conducted at least quarterly during school sessions. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It allows fire drills at high and middle schools to be conducted quarterly instead of monthly. The older age groups should be able to retain the fire drill information and practices better than elementary age students. This is placed at the end of Item (1) because that is where the monthly requirement is located. The section heading is amended to mirror NFPA 1 "Emergency Egress Drills".)**

§12-45.4-99 Use of School Facilities for Sleeping. Section 20.2.4.6 through 20.2.4.6.3 is added to read as follows: 20.2.4.6 Use of Educational Facilities for Sleeping.

20.2.4.6.1 Educational occupancies that allow sleeping on a temporary basis shall have the sleeping location approved by the AHJ.

20.2.4.6.2 Educational occupancies that allow sleeping on a temporary basis shall notify the AHJ no less than five (5) days prior to the event.

20.2.4.6.3 Smoking and open flames are prohibited in educational occupancies that allow sleeping on a temporary basis and shall be provided with one of the following:

1. Smoke alarms shall be provided in the designated sleeping area. When the facility is provided with a fire alarm system, the smoke alarms shall be connected to the fire alarm system; and

2. A fire watch approved by the AHJ shall be provided.

**(This was in the previous state fire code. It provides a minimum degree of protection in an occupancy not designed for sleeping purposes and for a practice of visiting neighbor island students that travel to another neighbor island and spend the evening prior to or after an athletic event at the host school at a much lower cost than a hotel. Fire watch approval is intended to include fire watch duties to the person performing that function. This would be similar to a dormitory. Dormitories require smoke alarms not interconnected in section 13.7.2.16.5.-Section 13.7.1.8.10 allows smoke alarms to be connected to a fire alarm system). Committee voted to amend the above listed section and provide this information to the Hawaii Department of Education. The committee also added Sections 20.2.4.6.1- 20.2.4.6.3 for the AHJ to use in enforcing the provision.)**

§12-45.4-100 Manufactured Housing. Section 20.11.5 is deleted in its entirety. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It is deleted because it is regulated by the building code.)**

§12-45.4-101 General. Section 25.1.1 is amended by adding an exception at the end to read as follows:

Exception: The provisions of this section do not apply to tents and temporary membrane structures having an area 700 square feet or less. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. Requirements for tents and temporary membrane structures are regulated by the building code. However, county fire departments have requirements and approve permits for larger tent sizes. This threshold was increase to the county with the smallest permit threshold of 700 sf. (other counties have a 2100 sf permit requirement.) The permit requirement is when the FD can notify the public of the requirements. If this stayed at 400sf, there may be many events that the FD is not aware of before a permit is required. The committee thought that membrane structures under 700 sf were**

**fairly safe without these requirements. The section heading is amended to mirror NFPA 1 “General”.)**

§12-45.4-102 Physical Protection for All Outside Aboveground Tanks. Section 42.3.3.7.2 is amended to read as follows: 42.3.3.7.2 Guard posts or other approved means shall be provided to protect tanks and appurtenances that are subject to vehicular damage in accordance with section 60.5.1.9.2. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. Reference to 60.5.1.9 provides requirements for guard post construction requirements. The reference was refined to address the specifics in 60.5.1.9.2. This is referenced to require the same provisions for guard posts consistently as they have been historically required in Hawaii. The section heading is amended to mirror NFPA 1 “Physical Protection for All Outside Aboveground Tanks.”)**

§12-45.4-103 Emergency Electrical Disconnects. Section 42.5.7 is amended by adding new sentences at the end to read as follows: Such devices shall be distinctly labeled as EMERGENCY FUEL SHUTOFF DEVICE. Signs shall be provided in approved locations. The signs shall be in red letters on a white background, not less than two inches high, with a ¼ inch stroke. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It adds important signage information for emergency shutoffs.)**

§12-45.4-104 Operational Requirements. Section 42.7.1.1 is amended by adding as follows: 42.7.1.1 Age Limitation. Persons under the licensed age are prohibited from dispensing fuel. [Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It is believed that a person 15 years or older is likely to understand the dangers involved in improperly dispensing fuel into vehicles and are able to act responsibly. Further, persons of this age are eligible to test for driving permits. The age of 15 was changed to coordinate with the signage requirements in Section 42.7.2.5.4, which**

**requires people of licensed age to dispense fuel. And if the license age changes, this still works. The section heading is amended to mirror NFPA 1 “Operational Requirements”.**

§12-45.4-105 Operational Requirements. Section 42.7.1 is amended by adding to read as follows: 42.7.1.2 Foreign Objects. The placement of a foreign object(s), that allows the fuel dispensing lever to remain in the open position, is prohibited at all times.

[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It prohibits an unsafe practice and requires persons to be in constant attendance when refueling is in progress. The section heading is amended to mirror NFPA 1 “Operational Requirements”**

§12-45.4-106 Signs. Section 42.7.2.5.4 is amended to read as follows: 42.7.2.5.4 Signs. Warning signs shall be conspicuously posted in the dispensing area and shall incorporate the following or equivalent wording:

**WARNING:**

It is unlawful and dangerous to dispense gasoline into unapproved containers.

No smoking.

Stop motor.

No filling of portable containers in or on a motor vehicle.

Place container on ground before filling.

Discharge your static electricity before fueling by touching a metal surface away from the nozzle.

Do not re-enter your vehicle while gasoline is pumping.

If a fire starts, **do not** remove nozzle — back away immediately.

Do not allow individuals under licensed the age of ~~15~~ years to use the pump.

The placement of a foreign object(s), that allows the fuel dispensing lever to remain in the open position, is prohibited at all times.

[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It keeps the most important safety information and adds the last two items that is consistent with previous amendment requirements. The second**

**to last amended line is returned to the model code language because the amendment to cite the 15 year age limit was revised to “licensed age.”)**

§12-45.4-107 Operating Requirements for Attended Self-Service Motor Fuel Dispensing Facilities. Section 42.7.4 is amended by adding as follows: 42.7.4.3.2 The hose nozzle valve shall not be equipped with an integral latch-open device where dispensing of Class I, II or III-A liquids is performed by someone other than a qualified attendant. The placement of a foreign object(s), that allows the fuel dispensing lever to remain in the open position, is prohibited at all times.  
[Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It is to prevent the unsafe practice of unattended refueling, which may lead to spills and possible ignition. It is in the section that addresses attendants at fuel dispensing facilities. This also means where a qualified attendant is performing the refueling operation, a latch-open device is permitted. The refueling station operator is responsible for the training and safe operations of refueling operations. The AHJ may determine what “qualified means. The section heading is amended to mirror NFPA 1 “Operating Requirements for Attended Self-Service Motor Fuel Dispensing Facilities”.)**

§12-45.4-108 Operating Requirements for Unattended Self-Service Motor Fuel Dispensing Facilities. Section 42.7.5.4 is amended to read as follows: 42.7.5.4 The hose nozzle valve shall not be equipped with an integral latch-open device where dispensing of Class I, II or III-A liquids is performed by someone other than a qualified attendant. The placement of a foreign object(s), that allows the fuel dispensing lever to remain in the open position, is prohibited at all times.  
[Eff \_\_\_\_\_ ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It is to prevent the unsafe practice of unattended refueling, which may lead to spills and possible ignition. It replaces the section of the code that allows latch-open devices. This also means where a qualified attendant is performing the refueling operation, a latch-open device is permitted. The refueling station operator is responsible**

**for the training and safe operations of refueling operations. The AHJ may determine what “qualified means.”)**

§12-45.4-109 Protection. Section 43.1.7 is amended by adding as follows:

43.1.7.1.4 Flammable finishing spray booth and spray room installed in accordance with this code shall be inspected, tested, and maintained in accordance with NFPA 17, 25, 33, 34 and 2001.

43.1.7.1.5 Inspection tag, label, and collar. Refer to the chapter on automatic fire sprinklers and other fire protection systems.

43.1.7.1.6 Inspection Report. Refer to the chapter on automatic fire sprinklers and other fire protection systems for requirements.

[Eff ] (Auth: RCH §4-105; ROH §1-9.1; HRS §132-2)(Imp: HRS §132)

**(This adds referenced NFPA standards for maintenance, system tag information, and reporting.)**

§12-45.4-110 General Requirements. Section 50.4.3.3 is amended by adding to read as follows: 50.4.3.3. Prior to the commencement of initial cooking operations, a satisfactory acceptance test of the system shall be made in accordance with the manufacturer’s instructions. The acceptance test shall be of an approved method and witnessed by the AHJ. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This is a consolidated county amendment. It authorizes the AHJ to approve and witness the acceptance test of commercial cooking extinguishing systems before cooking operations commence. The section heading is amended to mirror NFPA 1 “General Requirements”.)**

§12-45.4-111 Operating Procedures. Section 50.5.1.6.1 is amended to read: Where the fire extinguishing system or exhaust system is inoperable the AHJ shall be verbally notified immediately. Where the systems are tested as unsatisfactory, the system owner or owner’s representative shall be notified in writing of the impairment.

**(This adds immediate notification to the AHJ.)**

12-45.4-112 Inspection, Testing and Maintenance of Fire-Extinguishing Systems. Section 50.5.2.2 is amended by adding as follows: 50.5.2.2.1 A list of the appropriate commercial cooking extinguishing systems are found in Table 13.2.3.4.3.A entitled "Fire Protection Systems Reference Dates." Other systems shall be approved by the AHJ. [Eff \_\_\_\_\_] (Auth: RCH §4-105; ROH §1-9.1; HRS §132-2)(Imp: HRS §132)

**(This adds a referenced Exhibit for appropriate NFPA standards with their editions.)**

§12-45.4-113 Inspection, Testing and Maintenance of Fire Extinguishing Systems. Section 50.5.2 is amended by adding Sections 50.5.2.8.1 and 50.5.2.8.2 to read as follows:

50.5.2.8.1 Annex G, Exhibit I entitled "Commercial Cooking Extinguishing System Inspection, Testing and Maintenance Report" or similar report approved by the AHJ shall be provided to the property owner or agent within fourteen days after the test.

50.5.2.8.2 An electronic copy of the unsatisfactory test report shall be submitted to the AHJ within five working days. The AHJ shall determine if the submittal of a satisfactory test report will be required. [Eff \_\_\_\_\_] (Auth: RCH §4-105; ROH §1-9.1; HRS §132-2)(Imp: HRS §132)

**(This clarifies reporting requirements to the owner and the AHJ.)**

§12-45.4-114 Documentation Tag. 50.5.3.3 is amended by adding Section 50.5.3.3.3 to read as follows: 50.5.3.3.3 Inspection tag. Commercial cooking extinguishing systems passing an inspection shall have an approved tag affixed to the hood's extinguishing system piping near the manual activation device. The tag or label, as a minimum, shall identify the following:

- (1) Month and year the maintenance was performed;
- (2) Type of extinguishing system tested;
- (3) Certificate of fitness holder's name and number;
- (4) Company name, address and contact information;
- (5) Be yellow, at least two and one-fourth of an inch in width, three and one-fourth of an inch in length, and clearly visible without opening any cabinets;
- (6) Be constructed of a durable material approved by the AHJ;

- (7) Be punched with no more than one year and one month of the date of service;
- (8) Not obstruct the extinguishing system classification or instructions for use;
- (8) The previous tag or label shall be removed.

[Eff ] (Auth: RCH §4-105; ROH §1-9.1; HRS §132-2)(Imp: HRS §132)

**(Tagging identification is clarified.)**

§12-45.4-115 Hazardous Materials Management Plan (HMMP). Section 60.1.6 is amended by adding Section 60.1.6.1 to read as follows: The HMMP shall be made available on site. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It requires the Hazardous Materials Management Plan (HMMP) for buildings containing high hazard contents to be available on the premises for review by the AHJ. The section heading is amended to mirror NFPA 1 “Hazardous Materials Management Plan (HMMP)”.)**

§12-45.4-116 Protection from Vehicles. Section 60.5.1.9.2, Item (2) is amended to read as follows:

- (2) They shall be spaced not more than 3 feet between posts on center.

[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. To protect hazardous material storage in tanks from vehicle damage it requires three feet spacing instead of four feet for guard posts.)**

§12-45.4-117 General. Section 65.1 is amended by adding Section 65.1.3 to read as follows: 65.1.3 The AHJ is authorized to require the owner to remove at the expense of the owner, all fireworks offered for sale, stored, or possessed in violation of Chapter 65, or other applicable state or county laws or rules. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It authorizes the AHJ to have the owner, at their expense, to remove all fireworks from**

**the premises when violations of this chapter or other laws governing fireworks are discovered. The section heading is amended to mirror NFPA 1 "General".)**

§12-45.4-118 General. Section 65.1 is amended by adding Section 65.1.4 to read as follows: 65.1.4 Importation, storage, possession, sale, purchase, transfer, public displays and discharge of fireworks shall be in accordance with chapter 132D, HRS. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. It references HRS 132D, which regulates fireworks in the state. The section heading is amended to mirror NFPA 1 "General".)**

§12-45.4-119 Permits. Section 65.9.2.2 is deleted in its entirety. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. Fireworks permits are issued and approved by the counties.)**

§12-45.4-120 Permits. Section 65.10 is added to read as follows: Section 65:10 Retail sales of consumer fireworks in both new and existing buildings, structures, and facilities shall comply with the requirements of Chapter 6 and 7 of NFPA 1124, 2013 Edition. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was added to have requirements for storage & retail sales as NFPA 1124 this was deleted from the 2015 edition. NFPA 1124 is no longer being updated or published, however in lieu of creating requirements not based on a national standard this was referenced. Also added to the References Section.)**

§12-45.4-121 Permits. Section 66.1.5 is amended to read as follows: 66.1.5 Permits and Plans. Permits, where required, shall comply with Section 1.12 and applications for permits shall be submitted with a proposed site plan. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was in the previous state fire code. This allows the language for permits to remain because specific permit**

**requirements were deleted in Section 1.12.8 so each county can place them in their county fire code. Plans were added to clarify that they shall be submitted with the permit application.**

§12-45.4-122 Permits. Section 66.1.5 is amended by adding Section 66.1.5.1 to read as follows: 66.1.5.1. Filling Unpermitted Tanks Prohibited No fuel supplier shall fill or cause to be filled, an unpermitted storage tank. It is the supplier's responsibility to request and be presented with a copy of the approved permit issued by the AHJ. [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This was a consolidated county fire code amendment. It prohibits fuel suppliers from filling an unpermitted tank and requires an copy of the approved permit to be available to the fuel supplier for verification.)**

§12-45.4-123 Permanent Closure in Place. Section 66.21.7.4.3.3 is amended to read as follows: 66.21.7.4.3.3 Tanks Abandoned in Place. Tanks may be abandoned in place only if a certified structural engineer confirms that the removal of the tank will jeopardize the structural integrity of the existing building. An affidavit attesting to this determination shall be submitted to the AHJ prior to taking abandonment measures. Tanks abandoned in place shall be abandoned as follows:

1. All applicable AHJs shall be notified.
2. A safe workplace shall be maintained throughout the prescribed activities.
3. All flammable and combustible liquids and residues shall be removed from the tank, appurtenances, and piping and shall be disposed of in accordance with regulatory requirements and industry practices, using a written procedure.
4. The tank, appurtenances, and piping shall be made safe by either purging them of flammable vapors or inerting the potential explosive atmosphere. Confirmation that the atmosphere in the tank is safe shall be by testing of the atmosphere using a combustible gas indicator if purging, or an oxygen meter if inerting, at intervals in accordance with written procedures.
5. Access to the tank shall be made by careful excavation to the top of the tank.

6. All exposed piping, gauging and tank fixtures, and other appurtenances, except the vent, shall be disconnected and removed.
  7. The tank shall be completely filled with an inert solid material.
  8. The tank vent and remaining underground piping shall be capped or removed.
  9. The tank excavation shall be backfilled.
  10. A record of tank size, location and date of abandonment shall be retained by the owner and a copy submitted to the AHJ.
- [Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(The essence of this was in the previous state fire code. This only allows abandonment in place for tanks that cannot be removed only due to the structural integrity of existing buildings above or nearby underground fuel storage tanks. The provision keeps items 1-9 in the model code and adds item (5) from the previous amendment about records. This provides reasonable safety precautions for tanks to be left in its underground location.)**

§12-45.4-124 Permits. Section 69.1.2 is amended by adding Section 69.1.2.1 to read as follows: 69.1.2.1. Filling Unpermitted Tanks Prohibited. No fuel supplier shall fill or cause to be filled, an unpermitted storage tank. It is the supplier's responsibility to request and be presented with a copy of the approved permit issued by the AHJ.

[Eff ] (Auth: HRS §132-3)(Imp: HRS §132-3)

**(This is a consolidated county fire code amendment. It applies to liquefied petroleum gases and liquefied natural gases and prohibits fuel suppliers from filling an unpermitted tank and requires an copy of the approved permit to be available to the fuel supplier for verification. This is the same requirement for flammable liquid tanks. The title was changed to match the amendment 66.1.5.1. The section heading is amended to mirror NFPA 1 "Permits".)**

DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS

The repeal of chapter 12-45.3 and the adoption of chapter 12-45.4, Hawaii Administrative Rules, on the Summary Page dated XXXX XX, 2018, was adopted on XXXX XX, 2018, following a public hearing held on XXXX XX, 2018, after public notice was given in the Honolulu Star Advertiser on XXXX XX, 2018.

The repeal of chapter 12-45.3 and the adoption of chapter 12-45.4 shall take effect ten days after filing with the Office of the Lieutenant Governor.

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Manuel P. Neves, Chairperson  
State Fire Council

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Linda Chu Takayama, Director  
Department of Labor and Industrial  
Relations

APPROVED AS TO FORM:

\_\_\_\_\_  
Deputy Attorney General

\_\_\_\_\_  
David Ige  
Governor  
State of Hawaii

Dated: \_\_\_\_\_

\_\_\_\_\_  
Filed