

State Building Code Subcommittee of Building Officials
Meeting
Tuesday, June 18, 2019
8:00 a.m.

Department of Accounting and General Services
Comptroller's Conference Room 410
Kalanimoku Building
1151 Punchbowl Street
Honolulu, Hawaii 96813

West Hawaii Civic Center
Building "E", First Floor
74-5044 Ane Keohokalole Highway
Kailua-Kona, Hawaii 96740

Telephone Call-In: 1-240-454-0879 Attendee Access Code: 93910315

AGENDA

1. Call to order.
2. Introductions and public comments.
3. Review and approval of minutes of the February 19, 2019, meeting.
Note: The Subcommittee meeting held on March 19, 2019 did not have quorum.
4. Discussion of proposed amendments to the 2018 State Plumbing Code. Voting to forward amendments to the State Building Code Council may follow this discussion.
5. Next meeting: TBA
6. Adjournment.

State Building Code Subcommittee of Building Officials

Meeting

Tuesday, February 19, 2019

Department of Accounting and General Services

Comptroller's Conference Room 410

Kalanimoku Building

1151 Punchbowl Street

Honolulu, Hawaii 96813

West Hawaii Civic Center

Building "E", First Floor

74-5044 Ane Keohokalole Highway

Kailua-Kona, Hawaii 96740

Telephone Call-In: 1-240-454-0879 then 93910315

MINUTES

Present:

Douglas Haigh	County of Kauai
Willard Nishigata	City & County of Honolulu
Neal Tanaka	County of Hawaii
Glen Ueno	County of Maui
Gregg Serikaku	Plumbing and Mechanical Contractors Association of Hawaii
Kika Bukoski	UA Local 675
Kraig Stevenson (via phone)	International Code Council

1. Call to order: 8:20 a.m.
2. Review and approval of minutes of the April 17, 2018, meeting.

Motion: Douglas Haigh motioned to approve the minutes. Seconded by Glen Ueno.
Motion approved by all four County officials.

3. Gregg Serikaku lead the discussion on the proposed amendments to the 2018 Uniform Plumbing Code (UPC). He will follow up on the various questions and concerns discussed during the meeting.
4. Next meeting: Tuesday, March 19, 2019
5. Meeting adjourned: 8:55 a.m.

State Building Code Council

Hawaii State Plumbing Code

Effective Date: _____

Purpose. The purpose of this chapter is to adopt the state plumbing code as required by Section 107-25, Hawaii Revised Statutes (HRS).

Scope. This chapter sets forth minimum requirements for the design, installation, alteration, repair, and construction of plumbing and drainage systems, and shall apply to all new construction, relocation, alteration, repair or reconstruction.

Definitions. In this chapter, unless the context otherwise requires:

"Chapter" means chapter of this HAR Chapter 3-183.

"IAPMO" means the International Association of Plumbing and Mechanical Officials.

"UPC" means the Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials.

"Section" means a section of a chapter of the Uniform Plumbing Code.

Adoption of the Uniform Plumbing Code. The "Uniform Plumbing Code, [2012] 2018 Edition" including appendices A, B, C, G, I, K, L, and M as copyrighted and published by International Association of Plumbing and Mechanical Officials, 5001 East Philadelphia Street, Ontario, CA 91761-2816 is incorporated by reference and made a part of this chapter. This incorporation by reference includes all parts of the Uniform Plumbing Code subject to the amendments hereinafter set forth.

Code year updated from 2012 to the 2018 edition. Added Appendices K, L, and M, which cover Potable Rainwater Catchment Systems, Sustainable Practices, and Peak Water Demand Calculations

Permit Authorization. Each county may, by ordinance, require that a permit be obtained from the building official for any area regulated by this chapter.

AMENDMENTS TO THE 2018 IAPMO UNIFORM PLUMBING CODE

101.1 Title. This document shall be known as the State of Hawaii Plumbing Code, and may be cited as such, and will be referred to herein as "this code".

Organization and Enforcement.

102 Organization and Enforcement. In accordance to HRS107 the provisions of this code are State standards and are enforced when adopted by the counties or as an interim code if the counties fail to adopt. Provisions for licensing of design professionals and any person to perform plumbing work shall be in accordance to HRS444, 448E and 464.

This section was added for consistency with language contained in HRS107, HRS444, HRS448E, and HRS464.

Definitions.

204.0 -B-

Building Drain - That part of the lowest piping of a drainage system that receives the discharge from soil, waste, and other drainage pipes inside the walls of buildings and conveys it to the building sewer beginning [2 feet (610 mm)] five (5) feet (1524 mm) outside the building wall.

This amendment is included to correspond with provisions contained in HRS 448-E.

210.0 -H- Health Officer - Health Officer shall mean the director of health of the department of health, State of Hawaii, or the director's authorized agent."

This amendment is included to clearly define the term Health Officer as used in this code.

~~**[221.0 -S- Single Stack Vent System** - A specially designed plumbing system wherein a common stack serves as a drainage pipe as well as a vent pipe.]~~

This definition was deleted. Single stack vent systems are already covered in Appendix C section C601.0 - C6019.

~~[General Regulations.]~~

~~301.2 The use of the 2012 International Plumbing Code concurrent to this code may be used in lieu of the Uniform Plumbing Code when approved by the administrative authority. A written request by a Hawaii licensed mechanical engineer with the concurrence of the building or project owner must be made to the administrative authority. The details of this approval shall be recorded and entered in the files of the department. Plans submitted shall be stamped by the Hawaii licensed mechanical engineer. This section shall only apply to a new building or project and shall not be applied in conjunction with an existing building. Provisions of the Uniform Plumbing Code and the 2012 International Plumbing Code shall not be combined or interchanged unless approved by the administrative authority. Plans submitted shall clearly state on the submitted title, plumbing and/or mechanical sheets that the 2012 International Plumbing Code was used as the basis of design.]~~

This section was deleted. Sections 301.3 and 301.5 contain provisions that outline the process for the approval of alternative materials and methods of construction and alternative engineered designs.

313.8 Seismic supports. Where earthquake loads are applicable in accordance with the building code, plumbing piping supports shall be designed and installed for the seismic forces in accordance with the building code.

This section was added to define the requirements for seismic supports on plumbing piping systems.

~~[Plumbing Fixtures and Fixture Fittings.]~~

~~422.0 Minimum Number of Required Fixtures. Plumbing fixtures shall be provided for the type of building occupancy and in the minimum number required in Chapter 29 of the International Building Code.]~~

This amendment was deleted. Section 422.0 and table 422.1 now correspond with the occupancy codes listed in Chapter 29 of the International Building Code.

[Materials.]

~~604.11 Lead Content. The maximum allowable lead content in pipes, pipe fittings, plumbing fittings, and fixtures intended to convey or dispense water for human consumption shall be not more than a weighted average of 0.25 percent with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures. For solder and flux, the lead content shall be not more than 0.2 percent where used in piping systems that convey or dispense water for human consumption. Exceptions:~~

- ~~(1) Pipes, pipe fittings, plumbing fittings, fixtures or backflow preventers used for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not used for human consumption.~~
- ~~(2) Water closets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches (50 mm) in diameter or larger.]~~

This amendment was deleted. Section 604.2 already covers the federal lead content requirements mandated by the EPA.

Sanitary Drainage. 715.1 The building sewer, beginning ~~[2 feet (622 mm)]~~ **five (5) feet (1524 mm)** from any building or structure shall be of such materials as prescribed in this code.

This amendment was added to correspond with provisions contained in HRS 448-E.

~~**[Vents. 911.0 Single Stack System.** When approved by the administrative authority, a single stack system based on engineered studies and tests may be used in lieu of other related provisions in this code. Plans and specifications of such systems shall be prepared and stamped by a Hawaii licensed mechanical engineer.]~~

This amendment was deleted. Single stack vent systems are already covered in Appendix C section C601.0 - C6019.

Storm Drainage. Section 1101.12.1 is amended to read as follows:

1101.12.1 Primary Roof Drainage. Roof areas of a building shall be drained by roof drains or gutters. The location and sizing of drains and gutters shall be coordinated with the structural design and pitch of the roof. Unless otherwise required by the authority having jurisdiction, roof drains, gutters, vertical conductors or leaders, and horizontal storm drains for primary drainage shall be sized based on a storm of sixty 60 minutes duration and 100 year return period. Refer to [Table D-101.1 (in Appendix D)] the National Weather Service rainfall map for 100-year, 60-minute storms at various locations.

Section amended to reference the applicable Hawaii rainfall maps.

1701.0 Referenced Standards

Table 1701.1 is amended by adding the following State of Hawaii standards between Standard Number SAE-J1670-2008 and TCNA A118-10-2014:

Standard Number	Standard Title	Application	Referenced Sections
State of Hawaii - Rev. Sept. 2000	Standard Details for Public Works Construction	Various	Various
State of Hawaii - 2002	Water System Standards	Various	Various

Section added to incorporate the State of Hawaii Standards into the table of referenced standards.

C 601.0 Single-Stack Vent System.

C 601.1 Where Permitted. When approved by the Authority Having Jurisdiction, a single-stack system designed by a Hawaii licensed mechanical engineer based on engineered studies and tests may be used in lieu of other related provisions in this code. Plans and specifications of such systems shall be prepared and stamped by a Hawaii licensed mechanical engineer.

~~[Single stack venting shall be designed by a registered design professional as an engineered design.]~~ A drainage stack shall be permitted to serve as a single-stack vent system where sized and installed in accordance with Section C601.2 through Section C 601.9. The drainage stack and branch piping in a single-stack vent system shall provide for the flow of liquids, solids, and air without the loss of fixture trap seals.

Section amended to specify single-stack systems shall be designed and stamped by a Hawaii licensed mechanical engineer.

From: Gregg Serikaku <greggs@pamcahawaii.com>
To: Glen Ueno <Glen.Ueno@co.maui.hi.us>
Date: 3/19/2019 1:12 PM
Subject: Subcommittee Questions

Hi Glen,

Per your request, here is what I found on the inquiries made by the subcommittee members at the February meeting, and which I relayed today:

1. Why was the seismic supports amendment added on 2012 upc?
The language on seismic supports were actually added in the 2006 UPC adoption. I could not find the original proposer of the amendment, but it did come out through the subcommittee and was likely a request made by the structural engineers. The UPC does not specifically address seismic supports, but does contain numerous sections on support which limit excessive movement of plumbing systems.

2. If the SBCC adopts the UPC including appendices, do the appendices apply?
Yes, if the SBCC formally adopts the appendices, then the provisions of the appendices apply.

Note: Since HRS 107-25 requires the model plumbing code to be based on the UPC including its appendices, it was discussed that the subcommittee would therefore need to unanimously agree to remove any appendix.

3. If the appendices provide stricter requirements than the body of the code, do the stricter requirements apply?
Yes, if the appendices are formally adopted by the SBCC, the appendices' requirements become the minimum standard.

4. How does IAPMO come up with their rainfall maps.
The UPC rainfall maps are based on the U.S. Weather Bureau 100 year 60 minute rainfall, however, for Hawaii, the UPC references local data, which is the National Weather Service 100 year 60 minute rainfall maps.

Please let me know if you need anything else.

Thank you,

Gregg S. Serikaku
Executive Director
Plumbing & Mechanical Contractors Association of Hawaii
1088 Bishop Street #408
Honolulu, HI 96813
Phone: (808) 597-1216
Facsimile: (808) 597-1409
Email: greggs@pamcahawaii.com

Glen Ueno - State Plumbing Code Proposal

From: Tyler Dillon <TDillon@laytonconstruction.com>
To: "Rogers, Lloyd" <lrogers@honolulu.gov>, "dhaigh@kauai.gov" <dhaigh@kauai...
Date: 2/19/19 11:54 AM
Subject: State Plumbing Code Proposal
Attachments: UPC amendment for approved IPC use--letter from AG to SBCC 2017-10-25 (002).pdf;
SBCC State Plumbing Code 2018 Edition includes HAR Subchapter 3. V.2 (002).pdf

Aloha,

I am forwarding an electronic copy of the State Plumbing Code Proposal and the AG's opinion letter that I handed out at the meeting today.

Please feel free to contact me if you have any questions.

TYLER M. DILLON
Executive Vice President

Layton Construction Company
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DAVID Y. IGE
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DEPARTMENT OF THE ATTORNEY GENERAL
425 QUEEN STREET
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(808) 586-1500

October 25, 2017

Gaur Johnson, Ph.D.
Chair
State Building Code Council
1151 Punchbowl Street
Honolulu, Hawaii 96813

Dear Chair Johnson:

Re: Proposed Section 301.2, Hawaii State Plumbing Code

In its meeting on September 19, 2017, the State Building Code Council (SBCC) requested an opinion from the Department of the Attorney General concerning a provision in the proposed Hawaii State Plumbing Code. The specific provision at issue, section 301.2, would allow the use of the International Plumbing Code in lieu of the Uniform Plumbing Code when approved by the administrative authority, provided that certain specified requirements are met. The language of the provision reads as follows:

301.2 The use of the International Plumbing Code may be used in lieu of the Uniform Plumbing Code when approved by the administrative authority. A written request by a Hawaii licensed mechanical engineer with the concurrence of the building or project owner must be made to the administrative authority. The details of this approval shall be recorded and entered in the files of the department. Plans submitted shall be stamped by the Hawaii licensed mechanical engineer. This section shall only apply to a new building or project and shall not be applied in conjunction with an existing building. Provisions of the Uniform Plumbing Code and the International Plumbing Code shall not be combined or interchanged unless approved by the administrative authority. Plans submitted shall clearly state on the submitted title, plumbing and/or mechanical sheets that the International Plumbing Code was used as the basis of design.

The International Association of Plumbing and Mechanical Officials (IAPMO), which publishes the Uniform Plumbing Code, objects to the inclusion of this proposed provision and submitted a Code Amendment Proposal to the SBCC on August 23, 2017, requesting that this provision be deleted. IAPMO provided a list of reasons for the deletion as well as a copy of an

opinion letter from the Attorney General of Washington that advised the Washington Building Code Council that it lacked authority to include such a provision in its state's building code. We decline to follow the Washington Attorney General's opinion because the relevant Washington statutes and the Hawaii statutes are not identical, and the background facts and situations are different.

Applying basic rules of statutory construction, words in a statute are given their usual meaning. *See* Haw. Rev. Stat. § 1-14. Legislative history is consulted if the language of the statute is unclear or ambiguous. *See* Haw. Rev. Stat. § 1-15. If the language is ambiguous, the "reason and spirit of the law, and the cause which induced the legislature to enact it, may be considered to discover its true meaning" and "[e]very construction which leads to an absurdity shall be rejected." Haw. Rev. Stat. § 1-15(2) and (3).

Section 107-25, Hawaii Revised Statutes (HRS), which is the statutory authority for the Hawaii State Building Codes, states, in relevant part:

§107-25 Hawaii state building codes; requirements. There is established the Hawaii state building codes applicable to all construction in the State of Hawaii. The Hawaii state building codes shall be based upon:

-
(2) The Uniform Plumbing Code, as copyrighted and published by the International Association of Plumbing and Mechanical Officials, including its appendices;
-
(6) Code provisions based on nationally published codes or standards that include but are not limited to residential and hurricane resistant standards related to loss mitigation standards in accordance with section 431P-12, elevator, mechanical, flood and tsunami, existing buildings, and onsite sewage disposal.

Haw. Rev. Stat. § 107-25 (Supp. 2016).

Although section 107-25, HRS, lists the UPC as the basis for the plumbing code for Hawaii, the statutory language does not contain a term of limitation, e.g. it does not say that the Hawaii State Plumbing Code can only be based upon the UPC. Further, we can find no evidence in the statute or in the legislative history that the Legislature intended to ban completely the use of another plumbing code if, for some reason, the UPC cannot be used for the particular project.¹ The language of the proposed code provision appears to track similar language in the City's and the counties' codes, which allow the use of the International Plumbing Code (IPC), but only if approved by the administrative authority, and only if the applicant is able to meet specified

¹ Washington's statute states that its building code "shall consist of the following codes" before listing the UPC among other codes.

requirements. We also note that the addition of this provision was approved by the subcommittee of county building officials under section 107-24(b), HRS.

Like the similar code provision found in the plumbing codes of the City and the counties, the proposed code provision was adopted because the counties recognized that there may be circumstances when adherence to the UPC would be inappropriate or unreasonable. The provision's stringent requirements of the applicant and the administrative authority safeguards make clear that this provision is only to be used in unusual circumstances and only upon approval. Only if an applicant can establish to the administrative authority's satisfaction that the IPC is more appropriate for a particular project, and the applicant is able to meet all of the other requirements in the proposed code provision, would the IPC be allowed.

The language of section 107-25, HRS, does not contain any requirement that only the UPC may be used, nor any prohibition that prevents the application of an alternative code; and safeguards were added to the proposed code provision to allow application only in unusual circumstances. In our opinion, allowing the proposed code provision, which only allows an alternative in unusual circumstances and with specified requirements, is the more prudent alternative than an outright ban, which could have unintended consequences and effectively put a halt to a project or could possibly increase costs beyond the available budget.

Finally, we note that subsection (6) of section 107-25, HRS, allows for alternative code provisions "based on nationally published codes or standards" and appears to allow for the proposed code provision at issue. Given the existence of this subsection, it would be an absurdity to say that the IPC cannot be used at all, even when exceptional circumstances as determined by the administrative authority merit use of the IPC and the administrative authority has approved its use.

Based upon the above, it is our opinion that the proposed code provision is within the scope of section 107-25, HRS, and within the SBCC's authority to adopt as part of the State building codes.

Very truly yours,



Stella M.L. Kam
Deputy Attorney General

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

Amendment of Chapter 3-183

Hawaii Administrative Rules

Effective Date: _____

1. Chapter 183 of Title 3, Hawaii Administrative Rules, entitled "State Plumbing Code," is amended to read as follows:

HAWAII ADMINISTRATIVE RULES

TITLE 3

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

SUBTITLE 14

STATE BUILDING CODE COUNCIL

CHAPTER 183

STATE PLUMBING CODE

Note:

Underline is new added amended language

~~[Bracket and strike-out]~~ is deleted wording

Subchapter 1 Rules of General Applicability

3-183-1 Purpose

3-183-2 Scope

3-183-3 Definitions

3-183-4.1 Adoption of the *Uniform Plumbing Code*

3-183-4.2 Adoption of the *International Plumbing Code, State alternate code*

3-183-5 Permit Authorization

Subchapter 2 Amendments to the ~~[2012]~~2018 *IAPMO Uniform Plumbing Code*

3-183-6 Title

3-183-6.1 Organization and Enforcement

3-183-7 Definitions

3-183-8 General Regulations

3-183-9 Plumbing Fixtures and Fixture Fittings

~~3-183-9.1 Materials~~

3-183-10 Sanitary Drainage

3-183-11 Vents

3-183-12 Storm Drainage

3-183-13 Alternate Water Sources for Non-potable Applications

3-183-14 APPENDIX k - Private Sewage Disposal Systems

3-183-15 Reference Standards

3-183-16 Appendix C Alternate Plumbing Systems

Subchapter 3 Amendments to the 2018 ICC International Plumbing Code

3-183-17 Title

3-183-18 Duties and Powers of the Code Official

3-183-19 Definitions

3-183-20 Reference Standards

3-183-1 Purpose. The purpose of this chapter is to adopt the state plumbing code as required by section 107-25, Hawaii Revises Statutes (HRS), based upon the Uniform Plumbing Code and code provisions based on other nationally published codes, as authorized by subsection (6) of section 107-25, HRS.

Updated to reflect **October 24, 2017 State Attorney General's letter to the State Building Code Council** in determining the use of alternate codes and standards. ... *"we can find no evidence in the statute or in the legislative history that the legislature intended to ban completely the use of another plumbing code"...* The structure of the statute allows the SBBC to adopt alternative provisions, *"based on nationally published codes or standards."*

3-183-2 Scope. This chapter sets forth minimum requirements for the design, installation, alteration, repair, and construction of plumbing and drainage systems, and shall apply to all new construction, relocation, alteration, repair or reconstruction.

3-183-3 Definitions. In this chapter, unless the context otherwise requires:

"Chapter" means chapter of this HAR Chapter 3-183

"IAPMO" means the International Association of Plumbing and Mechanical Officials.

"ICC" means the International Code Council.

"IPC" means the International Plumbing Code as published by the International Code Council.

"Section-I" means a section of a chapter of the International Plumbing Code as amended by the State Building Code Council.

"Section-U" means a section of a chapter of the Uniform Plumbing Code as amended by the State Building Code Council.

"State alternate plumbing code" means the IPC as adopted and amended by the State Building Code Council as Subchapter 3 of HAR 3-183.

"State base plumbing code" means the UPC as adopted and amended by the State Building Code Council as Subchapter 2 of HAR 3-183.

"State plumbing code" means the adoption of the UPC and IPC respective of Subchapter 2 and Subchapter 3 of HAR 3-183 as adopted and amended by the State Building Code Council.

"UPC" means the Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials.

Updated to reflect new definitions to add clarity in referencing the adopted base code UPC and the adopted alternate base code IPC.

3-183-4.1 Adoption of the Uniform Plumbing Code. The "Uniform Plumbing Code, [2012] 2018 Edition" including appendices A, B, C, G, I, K, L and M limited to apply to installations beginning five (5) feet (1524 mm) outside the building wall and extending to the building and inside the building; as copyrighted and published by the International Association of Plumbing and Mechanical Officials, 5001 East Philadelphia Street, Ontario, CA 91761-2816 is incorporated by reference and made part of this chapter. This incorporation by reference includes all parts of the Uniform Plumbing Code subject to the amendments hereinafter set forth. Refer to Subchapter 2 HAR 3-183 for specific amendments to the IAPMO Uniform Plumbing Code.

Renumbered the section to clarify adoption of base code from the adopted base state code and the state alternate plumbing code. Code year updated from 2012 to the 2018 edition.

3-183-4.2 Adoption of the International Plumbing Code. The "International Plumbing Code" 2018 Edition including appendices B, C, D, and E limited to apply to installations beginning five (5) feet (1524 mm) outside the building wall and extending to the building and inside the building; as copyrighted and published by the International Code Council, 4051 Flossmoor Road, Country Club Hills, IL 60478 is incorporated by reference and made of this chapter, and to be known as the state alternate plumbing code. This incorporation by reference includes all parts of the International Plumbing Code subject to the amendments hereinafter set forth. Refer to Subchapter 3 HAR 3-183 for specific amendments to the ICC International Plumbing Code.

Created HAR numbering to reflect adoption of the state alternate plumbing code.

3-183-5 Permit Authorization. Each county may, by ordinance, require that a permit be obtained from the Building Official for any area regulated by this chapter.

SUBCHAPTER 2

AMENDMENTS TO THE [2012]2018 IAPMO UNIFORM PLUMBING CODE

3-183-6 Title. Section 101.1 is amended to read as follows:

Section-U 101.1 Title. ~~This~~ The document, 3-183 HAR shall be known as the State of Hawaii Plumbing Code, and may be cited as such, and will be referred to herein as "this code."

3-183-6.1 Organization and Enforcement. Section 102 is amended to read:

Section-U 102 Organization and Enforcement. In accordance to HRS 107 the provisions of this code are State standards and are enforced when adopted by the counties or as an interim code if the counties fail to adopt. Provisions for licensing of design professionals and any person to perform plumbing work shall be in accordance to HRS 444, 448E and 464.

This section added for consistency with language in HRS107, HRS444, HRS448E, and HRS464.

3-183-7 Definitions.

Section 204.0 -B- is amended to read as follow:

Section-U 204.0 -B-

Building Drain - That part of the lowest piping of a drainage system that receives the discharge from soil, waste, and other drainage pipes inside the walls of buildings and conveys it to the building sewer beginning ~~[2 feet (610 mm)]~~ five (5) feet (1524 mm) outside the building wall.

This amendment is included to correspond with provisions contained in HRS 448-E.

Section-U 210.0 -H- Health Officer. is added to read as follows:

Section-U 210.0 -H- Health Officer - "Health officer shall mean the director of health of the department of health, State of Hawaii, or the director's authorized agent."

This definition included to clearly define the term Health Officer as used in this code.

Section 218 is amended to read as follows:

Section-U 218.0 -P- Plumbing system. Includes all potable water, alternate water sources, building supply, and distribution pipes; all plumbing fixtures and traps; all drainage and vent pipes; and all building drains and building sewers, including their respective joints and connections, devices, receptors, and appurtenances within five (5) feet (1524 mm) outside the building wall ~~the property lines of the premises~~ and shall include potable water piping, potable water treating or using equipment, medical gas and medical vacuum systems, liquid and fuel gas piping, and water heater for same.

This amendment is included to correspond with provisions contained in HRS 448-E.

Section 221.0 -S- Single Stack Vent System. is deleted as follows:

~~[221.0 -S- Single Stack Vent System - A system specially designed plumbing system wherein a common stack vent serves as a drainage pipe as well as a vent pipe.]~~

This definition was deleted. Because single stack vent systems are already covered in Appendix C section C601.0 - C6019.

3-183-8 General Regulations.

Section 301.3 is amended to read as follows:

Section-U 301.3 Alternate Materials and Methods of Construction Equivalency. Nothing in this code is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this code. Technical documentation shall be submitted to the Authority Having Jurisdiction to demonstrate equivalency prior to installation. The Authority Having Jurisdiction shall have the authority to approve or disapprove the system, method, or device for the intended purpose.

However, the exercise of this discretionary approval by the Authority Having Jurisdiction shall have no effect beyond the jurisdictional boundaries of said Authority Having Jurisdiction. An alternate material or method of construction so approved shall not be considered as in accordance with the requirements, intent, or both of this code for a purpose other than that granted by the Authority Having Jurisdiction where the submitted data does not prove equivalency. If an alternate material, method, device or installation of a system is not approved by the Authority Having Jurisdiction, the Authority Having Jurisdiction shall respond in writing, stating objectively, the reasons for disapproval.

The use of the International Plumbing Code as adopted under 3-183-4.2 HAR and as amended in Subchapter 3 HAR 3-183 is recognized as a complaint state alternate plumbing code.

This section amended to be consistent with the current HAR 3-183-8 adoption of section 301.2 as amended by the SBCC with the adoption of the 2012 UPC. This section also aligns consistency for approval requirements found in the other adopted state codes. This facilitates a consistent and fair process for review and approval consistent for all adopted codes.

Section 313.8 Seismic Supports. Is amended to read as follows:

Section-U 313.8 Seismic Supports. Where earthquake loads are applicable in accordance with building code, plumbing piping supports shall be designed and installed for seismic forces in accordance with the international Building Code- As adopted and amended by the state building code council.

Section amended for consistency with other adopted state codes.

3-183-9 Plumbing Fixtures and Fixture Fittings.

Section 422.0 Minimum Number of Required Fixtures. Is amended as follows:

Section-U 422.0 Minimum Number of Required Fixtures. Plumbing fixtures shall be provided ~~for the type of building occupancy and in the minimum number required in Chapter 29 as shown in Table 2902.1 of the International Building Code, (Table 403.1 of the International Plumbing Code), based on the actual use of the building or space. The number of occupants shall be determined by the International Building Code.~~

This revised to better correlate with the adopted building code and direct users where to locate the requirements in the code(s).

3-183-9.1 Materials.

Section 604.11 Lead Content. Is deleted in its entirety.

This section deleted because Section 604.2 of the UPC complies with federal lead content requirements.

3-183-10 Sanitary Drainage.

Section 715.1 Sanitary Drainage. Section 715 is amended as follows:

Section-U 715.1 Sanitary Drainage. The building sewer, beginning [~~2 feet (622 mm)~~] five (5) feet (1524 mm) from any building or structure shall be of such materials as prescribed by this code.

Added to provide clarity and correspond with HRS 448-E.

3-183-11 Vents.

Section 911.0 Single Stack System. Delete in its entirety.

This section not needed as single stack systems are covered in Appendix C section C601.0 – C601.9.

3-183-12 Storm Drainage.

Section 1101.12.1 Storm Drainage. Is amended as follows:

Section-U 1101.12.1 Primary Roof Drainage. Roof area of a building shall be drained by roof drains or gutters. The location and sizing of drains and gutters shall be coordinated with the structural design and pitch of the roof. Unless otherwise required by the authority having jurisdiction, roof drains, gutters, vertical conductors or leaders, and horizontal storm drains for primary drainage shall be sized based on a storm of sixty 60 minutes duration and 100 year return period. Refer to [~~Table D101.1 in (Appendix D)~~] the National Weather Service rainfall map for 100-year, 60-minute storms at various locations.

Section amended to reference applicable Hawaii rainfall maps.

3-183-15 Reference Standards.

Section 1701.0 Referenced Standards. Amend as follows:

Section-U 1701.0 Reverenced Standards. Table 1701.1 is amended by adding the following State of Hawaii standards between Standard Number SAE-J1670-2008 and TCNA A118-10-2014:

Standard Number	Standard Title	Application	Reference Sections
State of Hawaii Rev. Sept. 2000	Standard Details for Public Works Construction	Various	Various
State of Hawaii Rev. Sept. 2000	Water System Standards	Various	Various

Section added to incorporate the State of Hawaii Standards into the table of referenced standards.

3-183-16 Appendix C Alternate Plumbing Systems.

Section C601.0 Single-Stack Vent System. Amend as follows:

Section-U C601.0 Single-Stack Vent System.

Section-U C601.1 Where Permitted. When approved by the Authority Having Jurisdiction, a single-stack system designed by a Hawaii licensed mechanical engineer based on engineered studies and tests may be used in lieu of other related provisions in this code. Plans and specifications of such systems shall be prepared and stamped by a Hawaii licensed mechanical engineer. [~~Single-stack venting shall be designed by a registered design professional as an engineered design.~~]
A drainage stack shall be permitted to serve as a single-stack vent system where sized and installed in accordance with Section C601.2 through Section C601.9. The drainage stack and branch piping in a single-stack vent systems shall provide for the flow of liquids, solids, and air without the loss of fixture trap seals.

Section amended to specify single-stack systems shall be designed and stamped by a Hawaii licensed mechanical engineer.

SUBCHAPTER 3

AMENDMENTS TO THE 2018 ICC INTERNATIONAL PLUMBING CODE

3-183-17 Title. Section 101.1 is amended to read as follows:

Section-I 101.1 Title. These regulations shall be known as the alternate state Plumbing Code of the State of Hawaii hereinafter referred to as ~~"this code."~~ "The state alternate plumbing code." The state alternate plumbing code maybe used as an alternative to the state base plumbing code when determined in the professional judgement of a Hawaii licensed mechanical engineer that adherence to the state base plumbing code would be inappropriate, unreasonable, or not cost effective. The design of the plumbing system shall be by a Hawaii licensed mechanical engineer. Plans and specifications of such shall be prepared and stamped with the professional seal of a Hawaii licensed mechanical engineer.

This section added to clarify the adoption of the IPC is the alternate state plumbing code and allowed for use as an alternate to the state base plumbing code with the condition the design shall be designed and sealed by a licensed Hawaii mechanical engineer. **This is consistent with the State of Hawaii's Attorney General's decision transmitted to the HI SBCC on October 25, 2017. This consistent with the conditions of use of Subchapter 2 of HAR 3-183-16 Appendix C Alternate Plumbing Systems requiring the design to be prepared by a licensed Hawaii mechanical engineer.**

3-183-18 Duties and Powers of the Code Official. Section 104.1 is amended to add a new section 104.1.1 as follows.

Section-I 104.1.1 Organization and Enforcement. In accordance to HRS 107 the provisions of this code are State standards and are enforced when adopted by the counties or as an interim code if the counties fail to adopt. Provisions for licensing of design professionals and any person to perform plumbing work shall be in accordance to HRS 444, 448E and 464.

This section added for consistency with Hawaii statutes

3-183-19 Definitions Section 202 is amended to read as follows:

Section-I 202 General Definitions.

The definition of building drain is amended to read as follows:

Building Drain. That part of the lowest piping of a drainage system that receives the discharge from soil, waste and other drainage pipes inside and that extends ~~30 inches (762 mm)~~ five (5) feet (1524 mm) in development length of pipe beyond the exterior walls of the building and conveys the drainage to the building sewer.

The definition of Health Officer is added to read as:

Health Officer. "Health officer shall mean the director of health of the department of health, State of Hawaii, or the director's authorized agent."

Replace the definition of plumbing system with the following:

Plumbing System. Includes all potable water, alternate water sources, building supply, and distribution pipes; all plumbing fixtures and traps; all drainage and vent pipes; and all building drains and building sewers, including their respective joints and connections, devices, receptors, and appurtenances within five (5) feet (1524 mm) outside the building wall and shall include potable water piping, potable water treating or using equipment, medical gas and medical vacuum systems, liquid and fuel gas piping, and water heater for same.

These definitions added to define building drain, Health Officer and plumbing for consistency with currently applied Hawaii statutes and definitions.

Add the following reference standards to Chapter 15

3-183-20 Reference Standards. Add the following State of Hawaii standards to Chapter 15.

Standard Number	Standard Title	Application	Reference Sections
State of Hawaii Rev. Sept. 2000	Standard Details for Public Works Construction	Various	Various
State of Hawaii Rev. Sept. 2000	Water System Standards	Various	Various

Section added to incorporate the State of Hawaii Standards into the table of referenced standards.

Underline is new added amended language

~~[Bracket and strike-out]~~ is deleted wording

Tyler M. Dillon
Vice Chair - Hawaii State Building Code Council
707 Richards Street
Suite PH-1A
Honolulu, HI 96813

June 6, 2019

State Building Code Subcommittee of Building Officials

Mr. Douglas Haigh, County of Kauai
Mr. Neal Tanaka, County of Hawaii
Mr. Willard Nishigata, City & County of Honolulu
Mr. Glen Ueno, County of Maui

RE: Meeting Notes from March 19, 2019 State Building Code - Subcommittee of Building Officials

Dear Messrs Haigh, Tanaka, Nishigata and Ueno,

As you already know, Mr. Tanaka was unable to attend this meeting thus no decision making occurred due to lack of quorum. However, the other members present did receive testimony and presentations on items originally presented on the agenda. I am writing to provide you my notes from the March 19, 2019 Subcommittee of Building Officials meeting to assist you in preparing a record of the oral testimony provided during this meeting.

The following people were in attendance:

Willard Nishigata, City & County of Honolulu
Douglas Haigh, County of Kauai
Glen Ueno, County of Maui
Gregg Serikaku, Subcontractors Association of Hawaii
Tyler Dillon, General Contractors Association (GCA) of Hawaii
Kraig Stevenson, International Code Council
Lee Clifton, International Code Council
Sachin Shah, Dorvin D. Leis, Inc.
Kika Bukoski, UA Local 675

Discussion, Testimony and Presentation:

1. SBO: Prior to discussing the IPC the UPC proposal by Greg Serakaku was discussed as follow-up to questions from the SBO at the February 19th meeting of the SBO.
 - **Fixture Counts:** the SBO asked, "What is the method or justification for the fixture counts in the UPC and the IPC?"

2. IPC discussion:

- a. Tyler Dillon gave an introduction regarding the GCA's proposal to adopt the IPC as an alternate plumbing code. He pointed out the national cost savings by the IPC by citing a recent national study. The study indicated that savings in both material and labor are possible when comparing the requirements and methods under IPC in comparison with UPC.
- b. Tyler identified that the GCA's proposal was focused entirely on allowing building owners and designers the option to use either UPC or IPC and not prohibit either. The advantage of preserving the option serves the greater interests of residents, consumer of construction services in the state including local government entities.
- c. Tyler also contrasted the differences between the two code publishers (ICC and IAPMO), but further emphasized the strong opposition against the GCA proposal goes much deeper than a battle between two publishers. Tyler presented information to identify the strong affiliation the UA union has with IAPMO. (All the board members of IAPMO are UA members.)
- d. Tyler emphasized why the IPC is needed in Hawaii Administrative Rules (HAR) rather just as an amendment to the UPC to allow the IPC as an alternate.
- e. Tyler introduced Sachin Shah to identify a Hawaii Mechanical Engineer's perspective
- f. Sachin explained how he didn't know about the IPC allowed by an amendment to the UPC since the 2006 UPC was adopted by the HI SBCC. (The provision is lost to users because they are unaware where to find the amendment.)
- g. Sachin said he has to use the IPC on federal projects, and would want to use the IPC on other projects if he knew about the IPC allowed. Sachin said, make the IPC stand out as an option in HAR.
- h. Greg Serikaku asked how does a plumber get trained to the IPC in Hawaii? The reply was they install to the plans.
- i. Sachin pointed out the design professional by navigating the permitting process, they provide IPC calculations
- j. Tyler pointed out there is the concern that anything introduced into the permitting process (outside of using IPC on a federal project) that is different, like designing IPC causes developers to hesitate or not use the IPC out of a fear of slowing down the permitting process.
- k. Greg Serikaku said using the IPC burdens the permitting process because it's different.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tyler M. Dillon', with a stylized, cursive script.

Tyler M. Dillon