

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

Adoption of Chapter 3-183
Hawaii Administrative Rules

October 13, 2009

SUMMARY

1. Chapter 183 of Title 3, Hawaii Administrative Rules, entitled "State Plumbing Code", is adopted.

HAWAII ADMINISTRATIVE RULES

TITLE 3

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

SUBTITLE 14

STATE BUILDING CODE COUNCIL

CHAPTER 183

STATE PLUMBING CODE

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§3-183-1

SUBCHAPTER 1

RULES OF GENERAL APPLICABILITY

§3-183-1 Purpose. The purpose of this chapter is to adopt the state plumbing code as required by section 107-25, Hawaii Revised Statutes (HRS). [Eff **APR 16 2010**]
(Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

§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. [Eff **APR 16 2010**]
(Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

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

"Chapter" means this chapter.

"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. [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

§3-183-4 Adoption of the Uniform Plumbing Code. The "Uniform Plumbing Code, 2006 Edition" including all appendices 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. [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

§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. [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

SUBCHAPTER 2

AMENDMENTS TO THE 2006 IAPMO UNIFORM PLUMBING CODE

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

"101.1 Title. This document shall be known as the "Uniform Plumbing Code" of the State of Hawaii, and may be cited as such, and will be referred to herein as "this code"." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

§3-183-7 Definitions.

Section 204.0 is amended to read as follows:

"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 five (5) feet (1524 mm) outside the building wall." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section 210.0 is amended to add the following:

"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." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

§3-183-7

Section 221.0 is amended to add the following:

"221.0 -s-

Single Stack System - A specially designed plumbing system wherein a common stack serves as a a drainage pipe as well as a vent pipe." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

§3-183-8 General regulations. Section 314.8 is added to read as follows:

"314.8 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." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

§3-183-9 Plumbing fixtures and fixture fittings. Section 412, Table 4-1, and Table A are deleted in their entirety, and replaced with Section 412.0 to read as follows:

"412.0 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." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

§3-183-10 Sanitary drainage. Section 715.1 is amended to read as follows:

"715.1 The building sewer, beginning five (5) feet (1524 mm) from any building or structure shall be of such materials as prescribed in this code." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

S3-183-11 Vents. Section 911.0 is added to read as follows:

"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." [Eff **APR 16 2010**] (Auth: HRS S107-29) (Imp: HRS SS107-24, 107-25)

S3-183-12 Storm drainage. Section 1101.11.1 is amended to read as follows:

"1101.11.1 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 the National Weather Service rainfall map for 100-year, 60-minute storms at various locations." [Eff **APR 16 2010**] (Auth: HRS S107-29) (Imp: HRS SS107-24, 107-25)

S3-183-13 Gray water systems - general. Section 1601.0 (A) is amended to read as follows:

"1601.0 (A) The provisions of this chapter shall apply to the construction, alteration, and repair of gray water systems for underground landscape irrigation. Installations shall be allowed only in single-family dwellings or as allowed by the authority having jurisdiction. The system shall have no connection to any potable water system and shall not result in any surfacing of the gray water. Except as otherwise provided for in this chapter, the provisions of this code shall be applicable to gray water installation." [Eff **APR 16 2010**] (Auth: HRS S107-29) (Imp: HRS SS107-24, 107-25)

Section 1601.0 (D) is amended to read as follows:

"1601.0 (D) No permit or approval for any gray water system shall be issued until a plot plan with appropriate data or design plans satisfactory to the authority having jurisdiction has been submitted and approved for use. When there is insufficient lot area or inappropriate soil conditions for adequate absorption of the gray water, as determined by the authority having jurisdiction, no gray water system shall be permitted." [Eff **APR 16 2010**]
(Auth: HRS §107-29)(Imp: HRS §§107-24, 107-25)

Section 1601.0 (E) is amended to read as follows:

"1601.0 (E) No permit or approval shall be issued for a gray water system on any property in a geologically sensitive area as determined by the authority having jurisdiction." [Eff **APR 16 2010**] (Auth: HRS §107-29)(Imp: HRS §§107-24, 107-25)

Section 1603.0 is amended to read as follows:

"1603.0 Permit or Approval

It shall be unlawful for any person to construct, install, or alter, or cause to be constructed, installed, or altered any gray water system in a building or on a premises without first obtaining a permit or approval to do such work from the authority having jurisdiction." [Eff **APR 16 2010**]
(Auth: HRS §107-29)(Imp: HRS §§107-24, 107-25)

Section 1604.0 is amended to read as follows:

"1604.0 Drawings and Specifications.

The authority having jurisdiction may require any or all of the following information to be included with or in the plot plan before a permit or approval is issued for a gray water system, or at any time during the construction thereof." [Eff **APR 16 2010**] (Auth: HRS §107-29)(Imp: HRS §§107-24, 107-25)

Section 1604.0 (A) is amended to read as follows:

"1604.0 (A) Plot plan drawn to scale and completely dimensioned, showing lot lines and structures, direction and approximate slope of surface, location of all present or proposed retaining walls, drainage channels, water supply lines, wells, paved areas and structures on the plot, number of bedrooms and plumbing fixtures in each structure, location of private sewage disposal system or building sewer connecting to the public sewer, and location of the proposed gray water system." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section 1607.0 is amended to read as follows:

"1607.0 Required Area of Subsurface Irrigation/Disposal Fields (See Figure 16-5.)

The authority having jurisdiction may require that each valved zone shall have a minimum effective irrigation area in square feet as determined by Table 16-2 for the type of soil found in the excavation, based upon a calculation of estimated gray water discharge pursuant to Section 1606.0 of this chapter, or the size of the holding tank, whichever is larger. The area of the irrigation/disposal field shall be equal to the aggregate length of the perforated pipe sections within the valved zone multiplied the width of the proposed irrigation/ disposal field. Each proposed gray water system shall include at least three (3) valved zones, and each zone shall be in compliance with the provisions of the section. No excavation for an irrigation/disposal field shall extend within three (3) vertical feet of the highest known seasonal ground-water, nor to a depth where gray water may contaminate the groundwater or ocean water. The applicant shall supply evidence of groundwater depth to the satisfaction of the authority having jurisdiction."

[Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section 1608.0 is amended to read as follows:

"1608.0 Determination of Maximum Absorption Capacity.

(A) Wherever practicable, irrigation/disposal* field size shall be computed from Table 16-2 and Table 16-3, or Water Demand based on Evapotranspiration (ET) data.

(B) In order to determine the absorption quantities of questionable soils other than those listed in Tables 16-2 and 16-3, the proposed site may be subjected to percolation tests acceptable to the authority having jurisdiction.

(C) When a percolation test is required, no gray water system shall be permitted if the test shows the absorption capacity of the soil is not acceptable as determined by the authority having jurisdiction or is less than eighty-three hundredths (0.83) gallons per square foot (33.8 L/m²) or more than five and twelve hundredths (5.12) gallons per square foot (208.5 L/m²) of leaching area per twenty-four hours.

(D) The following formula can be used to estimate the square footage of landscape to be irrigated based on ET data:

$$LA = \frac{GW}{ET \times PF \times 0.62}$$

Where: GW = estimated gray water produced (gallons per week)
LA = landscaped area (ft²)
ET = evapotranspiration (inches per week)
PF = plant factor, based on climate and type of plants
0.62 = conversion factor (from inches of ET to gallons per week)"

[Eff APR 16 2010] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section 1611.0 is amended to read as follows:

"1611.0 Irrigation/Disposal Field Construction. (See Figure 16-5.)

The authority having jurisdiction may permit subsurface drip irrigation, mini-leach field or other equivalent irrigation methods which discharge gray water in a manner which ensures that the gray water does not surface. Design Standards for subsurface drip irrigation systems and mini-leach field irrigation systems are as follows:

(A) Standards for a subsurface drip irrigation system:

(1) Minimum 140 mesh (115 micron) filter with a capacity of 25 gallons per minute, or equivalent, filtration, sized appropriately to maintain the filtration rate, shall be used. The filter back-wash and flush discharge shall be caught, contained and disposed of to the sewer system, septic tank, or with approval of the authority having jurisdiction, a separate mini-leach field sized to accept all the back-wash and flush discharge water. Filter back-wash water and flush water shall not be used for any purpose. Sanitary procedures shall be followed when handling filter back-wash and flush discharge of gray water.

(2) Emitters shall have a minimum flow path of 1200 microns and shall have a coefficient of manufacturing variation (Cv) of no more than seven percent. Irrigation system design shall be such that the emitter flow variation shall not exceed plus or minus ten percent. Emitters shall be recommended by the manufacture for subsurface use and gray water use, and shall have demonstrated resistance to root intrusion.

(3) Each irrigation zone shall be designed to include no less than the number of emitters specified in Table 16-3, or through a procedure designated by the authority having jurisdiction. Minimum spacing between emitters is 14 inches in any direction.

(4) The system design shall provide user controls, such as valves, switches, timers, and other controllers as appropriate, to rotate the distribution of gray water between irrigation zones.

(5) All drip irrigation supply lines shall be polyethylene tubing or PVC class 200 pipe or better and schedule 40 fittings. All joints shall be properly solvent-cemented, inspected and pressure tested at 40 psi, and shown to be drip tight for five minutes, before burial. All supply lines will be buried at least eight inches deep. Drip feeder lines can be poly or flexible PVC tubing and shall be covered to a minimum depth of nine inches.

(6) Where pressure at the discharge side of the pump exceeds 20 pounds per square inch (psi), a pressure reducing valve able to maintain downstream pressure no greater than 20 psi shall be installed downstream from the pump and before any emission device.

(7) Each irrigation zone shall include a flush valve/anti-siphon valve to prevent back siphonage of water and soil.

(B) Standards for a mini-leach field system:

(1) Perforated sections shall be a minimum three (3) inch (80 mm) diameter and shall be constructed of perforated high-density polyethylene pipe, perforated ABS pipe, perforated pvc pipe, or other approved materials, provided that sufficient openings are available for distribution of the gray water in to the trench area. Material, construction, and perforation of the pipe shall be in compliance with the appropriate absorption fields drainage piping standards and shall be approved by the authority having jurisdiction.

(2) Filter material, clean stone, gravel, slag, or similar filter material acceptable to the authority having jurisdiction, varying in size from three - quarter (3/4) inch (20 mm) to two and one-half (2-1/2) inch (65 mm) shall be placed in the trench to the depth and grade required by this section. The perforated section shall be laid on the filter material in an approved manner. The perforated section shall then be covered with filter material to the minimum depth required by this section. The filter material shall then be covered with untreated building paper, straw, or similar porous material to prevent closure of voids with earth backfill. No earth backfill shall be placed over the filter material cover until after inspection and acceptance."

[Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section 1612.0 (A) is amended to read as follows:
"1612.0 (A) Other collection and distribution systems such as laundry only gray water systems may be approved by the local authority having jurisdiction." [Eff **APR 16 2010**]
] (Auth: HRS §107-29) (Imp: HRS §107-24, 107-25)

Table 16-1 is amended as follows:

**"Table 16-1
 Location of Gray Water Systems**

Minimum Horizontal Distance in <u>Clear Required From:</u>	Holding Tank		Irrigation/ Disposal Field	
	Feet	(mm)	Feet	(mm)
Building structures ¹	5 ²	(1,524mm)	5	(1,524 mm)
Property line adjoining private property	5	(1,524mm)	5	(1,524mm)
Water supply wells ⁴	550	(15,240mm)	1000	(304,800 mm)
Streams and lakes ⁴	550	(15,240mm)	50 ⁵	(15,240 mm)
Sewage pits or cesspools	5	(1,524mm)	5	(1,524mm)
Disposal field	5	(1,524mm)	5	(1,524 mm)
Septic tank	0	(0)	5	(1,524mm)
On-site domestic water service line	5	(1,524mm)	5	(1,524mm)
Pressurized public water main	10	(3,048 mm)	10 ⁷	(3,048 mm)"

[Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

§3-183-13

Table 16-3 is amended as follows:

**"Table 16-3
Subsurface Drip Design Criteria for Six Typical Soils**

<u>Type of Soil</u>	<u>Maximum Emitter Discharge (gal/day)</u>	<u>Minimum Number of Emitters per gpd of gray water production</u>
Sand	1.8	0.6
Sandy loam	1.4	0.7
Loam	1.2	0.9
Clay loam	0.9	1.1
Silty clay	0.6	1.6
Clay	0.5	2.0"

[Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section 1614.0 is amended to read as follows:

"1614.0 Definitions.

Reclaimed water is water that, as a result of tertiary treatment of domestic wastewater, is at all times oxidized, then filtered, and then exposed, after the filtration process, to:

- (1) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least resistant to disinfection as polio virus may be used for purposes of demonstration; and
- (2) A disinfection process that limits the concentration of fecal coliform bacteria to the following criteria:
 - (A) The median density measure in the disinfected effluent does not exceed 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed; and

(B) The density does exceed 23 per 100 milliliters in more than one sample in any 30-day period; and

(C) No sample shall exceed 200 per 100 milliliters.

The level of treatment and quality of the reclaimed water shall be approved by the department of health.

Specifically excluded from this definition is gray water, which is defined in Part I of this chapter.

For the purposes of this section, the words "reclaimed" and "recycled" may be used interchangeably."

[Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

§3-183-14 Appendix K-Private Sewage Disposal Systems.

Section K 1 (A) is amended by adding the following at the ending:

"Construction plans for private sewage disposal systems shall be prepared by or under the supervision of a Hawaii licensed engineer registered in the State of Hawaii. All private sewage disposal systems shall be constructed or modified by a person meeting the requirements of chapter 444, Hawaii Revised Statutes (HRS), and any pertinent rules promulgated by the department of commerce and consumer affairs, State of Hawaii." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section K 1 (E) is amended to read as follows:

"The lot area shall not be less than 10,000 square feet except for lots created and recorded before August 30, 1991. For lots less than 10,00 square feet which were created and recorded before August 30, 1991, only one private sewage disposal system shall be allowed. The total wastewater flow into one private sewage disposal system shall not exceed one thousand gallons, and one private sewage disposal system shall not serve more than five bedrooms, whether they are in one dwelling unit or two. For buildings, other than dwellings with highly variable wastewater flow rates, such as but not limited to schools, parks, and churches, the private sewage disposal system may exceed a design flow rate of 1,000 gallons per day."

[Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section K 1 (J) is amended by adding the following at the ending:

"Aerobic systems shall be required for the direct disposal of sewage to groundwater." [Eff **APR 16 2010**]
(Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section K 2 is amended to read as follows:

"Section K 2 Capacity of Septic Tanks. The liquid capacity of all septic tanks shall conform to Tables K-2 and K-3 as determined by the number of bedrooms in dwelling occupancies and the estimated waste/sewage design flow rate or the number of plumbing fixture units as determined from Table 7-3 of this Code, whichever is greater in other building occupancies. The capacity of any one septic tank and its drainage system shall be limited by the soil structure classification, as specified in Table K-4." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)
.....

Section K 3 is amended to read as follows:

"Section K 3 Area of Disposal Fields and Seepage Pits. The minimum effective absorption area in disposal fields in square feet (m²) of sidewall, shall be predicated on the required septic tank capacity in gallons (liters) and/or estimated waste/sewage flow rate, whichever is greater, and shall conform to Table K-4 as determined for the type of soil found in the excavation. The minimum effective absorption area could also be based upon a flow of 200 gallons per bedroom per day in accordance with Table K-6. Soil percolation tests shall be conducted at a minimum depth of three feet." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section K 4(C) is amended by amending the first sentence to read as follows:

"Section K 4 Percolation Tests. When a percolation test is required, the test shall be conducted at a minimum depth of three feet, and no private disposal system shall be permitted to serve a building if that test shows the absorption capacity of the soil is less than 0.83 gallons per square foot (33.8 L/m²) or more than 5.12 gallons per square foot (208 L/m²) of leaching area per 24 hours." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section K 5(N)(1) is amended to read as follows:

"Section K 5 Septic Tank Construction. The septic tank shall be certified by IAPMO or a third party certification body accredited in accordance with ISO Guide 65, entitled "General Requirements for bodies operating product certification systems." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Section K 7(C) is amended by amending the first sentence to read as follows:

"Section K 7 Seepage Pits. Each seepage pit shall be circular in shape and shall have an excavated diameter of not less than six (6) feet (1,829 mm)." [Eff **APR 16 2010**] (Auth: HRS §107-29) (Imp: HRS §§107-24, 107-25)

Table K-1 Location of Sewage Disposal System, is amended by revising the minimum horizontal distances to be consistent with chapter 11-62, "Wastewater Systems", distances.

See attached Table K-1, Location of Sewage Disposal Systems, dated April 2009, located at the end of this chapter for changes.

Table K-2 Capacity of Septic Tanks, is amended as follows:

Under column "Single-Family Dwellings-Number of Bedrooms", delete "1 or 2 and 3" and replace with "4 or less".

Under column "Multiple Dwelling Units or Apartments-One Bedroom Each", delete "3 through 10".

Delete entire column "Other Uses: Maximum Fixture Units Served per Table 7-3".

Under column "Gallons", delete "750"; delete "1,200" and replace with "1,250"; delete "1,500 to 3,500"

Under column "Minimum Septic Tank Capacity in (Liters)", delete "7570 through 13,248"; delete "1,200" and replace with "1,250"; delete "1,500 to 3,500"

Delete "*Note: Extra Bedroom, 150 gallons (568 liters) each. Extra dwelling units over 10: 250 gallons (946 liters) each. Extra fixture units over 100: 25 gallons (95 liters) per fixture unit."

See attached Table K-2, Capacity of Septic Tanks, dated April 2009, located at the end of this chapter for changes.

§3-183-14

Table K-6 Minimum Required Absorption Area

Table K-6, Minimum Required Absorption Area, dated April 2009, located at the end of this chapter is added.

TABLE K-1
Location of Sewage Disposal System
April 2009

Minimum Horizontal Distance In Clear Required From:	Building Sewer	Septic Tank	Disposal Field	Seepage Pit or Cesspool
Buildings or structures ¹	2 feet (610 mm)	5 feet (1,524 mm)	8 feet (2,438 mm)	8 feet (2,438 mm)
Property line adjoining private property	Clear ²	5 feet (1,524 mm)	5 feet (1,524 mm)	8 feet (2,438 mm)
Water supply wells	50 feet ³ (15,240 mm)	50 feet (15,240 mm)	1,000 feet (304,800 mm)	150 feet (45.7 m)
Streams and other bodies of water	50 feet (15,240 mm)	50 feet (15,240 mm)	100 feet ⁷ (30,480 mm) ⁷	150 feet ⁷ (45.7 m) ⁷
Trees	—	10 feet (3,048 mm)	—	10 feet (3,048 mm)
Seepage pits or cesspools	—	5 feet (1,524 mm)	5 feet (1,524 mm)	12 feet (3,658 mm)
Disposal field	—	5 feet (1,524 mm)	4 feet ⁴ (1,219 mm)	5 feet (1,524 mm)
On-site domestic water service line	1 foot ⁵ (305 mm)	5 feet (1,524 mm)	5 feet (1,524 mm)	5 feet (1,524 mm)
Distribution box	—	—	5 feet (1,524 mm)	5 feet (1,524 mm)
Pressure public water main	10 feet ⁶ (3,048 mm)	10 feet (3,048 mm)	10 feet (3,048 mm)	10 feet (3,048 mm)

Note:

When disposal fields and/or seepage pits are installed in sloping ground, the minimum horizontal distance between any part of the leaching system and ground surface shall be fifteen (15) feet (4,572 mm).

¹ Including porches and steps, whether covered or uncovered, breezeways, roofed porte cocheres, roofed patios, carports, covered walks, covered driveways, and similar structures or appurtenances.

² See also Section 313.3 of the Uniform Plumbing Code.

³ All drainage piping shall clear domestic water supply wells by at least fifty (50) feet (15,240 mm). This distance may be reduced to not less than twenty-five (25) feet (7,620 mm) when the drainage piping is constructed of materials approved for use within a building.

⁴ Plus two (2) feet (610 mm) for each additional one (1) foot (305 mm) of depth in excess of one (1) foot (305 mm) below the bottom of the drain line. (See also Section K 6.)

⁵ See Section 720.0 of the Uniform Plumbing Code.

⁶ For parallel construction – For crossings, approval by the Health Department shall be required.

⁷ These minimum clear horizontal distances shall also apply between disposal fields, seepage pits, and the mean high tide line.

TABLE K-2
Capacity of Septic Tanks*
April 2009

Single-Family Dwellings – Number of Bedrooms	Multiple Dwelling Units or Apartments – One Bedroom Each	Minimum Septic Tank Capacity in	
		Gallons	(Liters)
4 or less	—	1,000	(3,785)
5	2 units	1,250	(4,731)

Septic tank sizes in this table include sludge storage capacity and the connection of domestic food waste disposal units without further volume increase.

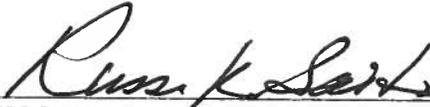
TABLE K-6
 Minimum Required Absorption Area
 April 2009

Percolation Rate (min/Inch) Less than or equal to	Required Absorption Area (ft²/bedroom or 200 gallons)	Percolation Rate (min/Inch) Less than or equal to	Required Absorption Area (ft²/bedroom or 200 gallons)
1	70	31	253
2	85	32	257
3	100	33	260
4	115	34	263
5	125	35	267
6	133	36	270
7	141	37	273
8	149	38	277
9	157	39	280
10	165	40	283
11	170	41	287
12	175	42	290
13	180	43	293
14	185	44	297
15	190	45	300
16	194	46	302
17	198	47	304
18	202	48	306
19	206	49	308
20	210	50	310
21	214	51	312
22	218	52	314
23	222	53	316
24	226	54	318
25	230	55	320
26	234	56	322
27	238	57	324
28	242	58	326
29	246	59	328
30	250	60	330

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

Chapter 3-183, Hawaii Administrative Rules, on the Summary Page dated October 13, 2009 was adopted on October 13, 2009, following a public hearing held on Oahu, Maui, Hawaii, and Kauai on September 30, 2009, after public notice was given in the Honolulu Star Bulletin, The Maui News, Hawaii Tribune Herald, West Hawaii Today, and The Garden Island on August 31, 2009.

The adoption of chapter 3-183 shall take effect ten days after filing with Office of the Lieutenant Governor.



RUSS K. SAITO, State Comptroller
Department of Accounting and
General Services and
Chairperson, State Building
Code Council

APPROVED:



LINDA LINGLE, Governor
State of Hawaii

Dated: _____

4/4/10

APPROVED AS TO FORM:



Deputy Attorney General

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