

**REVISED EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING CHANGES TO THE
2013 CALIFORNIA PLUMBING CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5
(HCD 05/12)**

LEGEND FOR EXPRESS TERMS:

1. **UPC language with new California amendments:** UPC language shown in normal Arial 9 point; California amendments to UPC text shown *underlined and in italics*.
 2. **Existing California amendments or code language being modified:** *All such language shown in italics, modified language is underlined or shown in ~~strikeout~~.*
 3. **Text not being modified:** All language not displayed in full is shown as “...” (i.e. ellipsis).
 4. **Repealed text:** All language shown in ~~strikeout~~.
 5. **Amended, adopted or repealed language after public hearing:** All such language appears in double underline or ~~double-strikeout~~.
 6. **Notation:** Authority and Reference citations are provided at the end of each section.
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1. HCD proposes to amend Chapter 2, Section 214.0 as follows:

**CHAPTER 2
DEFINITIONS**

214.0

-L-

Low VOC Cement (HCD 1 & HCD 2). *Cement with a volatile organic compound (VOC) content of less than or equal to 490 g/L for CPVC Cement, 510 g/L for PVC Cement, and 325 g/L for ABS Cement, as determined by the South Coast Air Quality Management District's Laboratory Methods of Analysis for Enforcement Samples, Method 316A.*

Low VOC One-Step Cement (HCD 1 & HCD 2). *Listed solvent cements that do not require the use of primer with a volatile organic compound (VOC) content of less than or equal to 490 g/L for CPVC Cement, 510 g/L for PVC Cement, and 325 g/L for ABS Cement, as determined by the South Coast Air Quality Management District's Laboratory Methods of Analysis for Enforcement Samples, Method 316A.*

Low VOC Primer (HCD 1 & HCD 2). *Primer with a volatile organic compound (VOC) content of less than or equal to 550 g/L, as determined by the South Coast Air Quality Management District's Laboratory Methods of Analysis for Enforcement Samples, Method 316A.*

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for Change:

HCD initially proposed to delete existing references to “HCD 2” believing the inclusion of that banner designation was not appropriate or necessary. The “HCD 2” designation applies specifically to permanent buildings in Mobilehome Parks / Special Occupancy Parks. Those permanent buildings are of occupancy classifications other than residential. However, at the PEME Code Advisory Committee meeting held on July 24, 2012, HCD received comments advocating the retention of the “HCD 2” designation. HCD agreed with this feedback and prior to submitting the Express Terms to the CBSC for the 45-day public comment period, restored most of the “HCD 2” designations previously proposed for repeal. During the 45-day public comment period, HCD received a comment pointing out the need to retain the “HCD 2” designation. Upon review, staff discovered that several “HCD 2” designations had not been restored as intended, which was an oversight. HCD proposes to modify the language to restore the “HCD 2” designation as previously agreed.

2. HCD proposes to amend Chapter 2, Section 220.0 as follows:

**CHAPTER 2
DEFINITIONS**

220.0

-R-

Rainwater Catchment System (HCD 1) *A facility designed to capture, retain, and store rainwater flowing off a building, ~~parking lot, or any other manmade impervious surface~~ rooftop for subsequent onsite use. Rainwater catchment system is also known as “Rainwater Harvesting System” or “Rainwater Capture System.”*

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for change:

During the 45-day public comment period, AB 1750, amended in the last days of the legislative cycle, was signed into law. This law is known as the “Rainwater Capture Act of 2012” and defines “Rainwater Catchment System”, which limits rainwater collected on a building site to only water captured from building rooftops due to existing California water rights laws. HCD proposes to modify the definition of “Rainwater Catchment System” for consistency with AB 1750.

3. HCD proposes to amend Chapter 11, Section 1101.3 as follows:

1101.3 Material Uses. Rainwater piping placed within the interior of a building or run within a vent or shaft shall be of cast-iron, galvanized steel, wrought iron, brass, copper, lead, Schedule 40 ABS DWV, Schedule 40 PVC DWV, stainless steel 304 or 316L (stainless steel 304 pipe and fittings shall not be installed underground and shall be kept not less than six (6) inches (152 mm) above ground), or other approved materials, and changes in direction shall conform to the requirements of Section 706.0. ABS and PVC DWV piping installations shall be installed in accordance with IS 5 and IS 9. Except for individual single-family dwelling units, materials exposed within ducts or plenums shall have a flame-spread index of a maximum of 25 and a smoke-developed index of a maximum of 50, where tested in accordance with ASTM E84 and UL 723.

(HCD 1 & HCD 2) *ABS or PVC installations are limited to not more than two stories of areas of residential accommodation.*

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for change:

HCD initially proposed to delete existing references to “HCD 2” believing the inclusion of that banner designation was not appropriate or necessary. The “HCD 2” designation applies specifically to permanent buildings in Mobilehome Parks / Special Occupancy Parks. Those permanent buildings are of occupancy classifications other than residential. However, at the PEME Code Advisory Committee meeting held on July 24, 2012, HCD received comments advocating the retention of the “HCD 2” designation. HCD agreed and prior to submitting the Express Terms to the CBSC for the 45-day public comment period, restored most of the “HCD 2” designations previously proposed for repeal. During the 45-day public comment period, HCD received a comment pointing out the need to retain the “HCD 2” designation. Upon review, staff discovered that several “HCD 2” designations had not been restored as intended, which was an oversight. HCD proposes to modify the language to restore the “HCD 2” designation as previously agreed.

4. HCD proposes to amend Chapter 11, Section 1102.1.1 as follows:

1102.1.1 Inside of Conductors. The inside of conductors installed above ground level shall be of seamless copper water tube, Type K, L, or M; Schedule 40 copper pipe or Schedule 40 copper alloy pipe; Type DWV copper drainage tube; service weight cast-iron soil pipe or hubless cast-iron soil pipe; standard weight galvanized steel pipe; stainless steel 304 or 316L stainless steel 304 pipe and fittings shall not be installed underground and shall be kept not less than 6 inches (152 mm) above ground; or Schedule 40 ABS or Schedule 40 PVC plastic pipe.

(HCD 1 & HCD 2) ABS or PVC installations are limited to not more than two stories of areas of residential accommodation.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for change:

HCD initially proposed to delete existing references to “HCD 2” believing the inclusion of that banner designation was not appropriate or necessary. The “HCD 2” designation applies specifically to permanent buildings in Mobilehome Parks / Special Occupancy Parks. Those permanent buildings are of occupancy classifications other than residential. However, at the PEME Code Advisory Committee meeting held on July 24, 2012, HCD received comments advocating the retention of the “HCD 2” designation. HCD agreed and prior to submitting the Express Terms to the CBSC for the 45-day public comment period, restored most of the “HCD 2” designations previously proposed for repeal. During the 45-day public comment period, HCD received a comment pointing out the need to retain the “HCD 2” designation. Upon review, staff discovered that several “HCD 2” designations had not been restored as intended, which was an oversight. HCD proposes to modify the language to restore the “HCD 2” designation as previously agreed.

5. HCD proposes to renumber former Section 1602.9.2 to Section 1602.9.3 and adopt Chapter 16, Section 1602.9.2 as follows:

1602.9.2 Gray Water Pipe and Fitting Materials. Aboveground and underground building drainage and vent pipe and fittings for gray water systems shall comply with the requirements for aboveground and underground sanitary building drainage and vent pipe and fittings in this code. These materials shall extend not less than 2 feet (610 mm) outside the building.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for change:

During the 45-day public comment period, HCD received comments requesting that the model code language of Section 1602.9.2 “Gray Water Pipe and Fitting Materials” be adopted to clearly identify the material requirements for gray water piping. This section is consistent with 2010 CPC, Section 1610A.1 that references Sections 604.0, 605.0, and 606.0 of the model code, which identify the requirements for plumbing pipe, valve, and fitting materials. HCD agrees with the comments and proposes to adopt this model code section since it was HCD’s intent to carry forward the provisions of 2010 CPC, Chapter 16A.

6. HCD proposes to renumber former Section 1602.9.2 to Chapter 16, Section 1602.9.3 as follows:

~~1602.9.2, 1602.9.3, Animals and Insects.~~ (No change to text)

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for change:

HCD proposes to renumber Section 1602.9.2 “Animals and Insects” to Section 1602.9.3 “Animals and Insects” based on the proposed adoption of model code Section 1602.9.2 “Gray Water Pipe and Fitting Materials”, which requires an adjustment of subsequent section numbers.

7. HCD proposes to renumber former Section 1602.9.3 to Chapter 16, Section 1602.9.4 as follows:

~~1602.9.3, 1602.9.4, Freeze Protection.~~ (No change to text)

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for change:

HCD proposes to renumber Section 1602.9.3 “Freeze Protection” to Section 1602.9.4 “Freeze Protection” based on the proposed adoption of model code Section 1602.9.2 “Gray Water Pipe and Fitting Materials”, which requires an adjustment of subsequent section numbers.

8. HCD proposes to amend Chapter 16, Section 1602.11.2 as follows:

**CHAPTER 16
ALTERNATE WATER SOURCES FOR NONPOTABLE APPLICATIONS**

1602.11.2 Irrigation Field. The provisions of this section are not intended to prevent the use of any appropriate material, appliance, installation, device, design or method of construction. If an alternate design is not available, the following provisions may be used as guidance in the design of a gray water irrigation field:

Items (1) – (5) ... (No change to text)

(6) Where pressure at the discharge side of the pump exceeds 20 psi (138 kPa), a pressure-reducing valve able to maintain downstream pressure no greater than 20 psi (138 kPa) the maximum operating pressure of the installed tubing, emitters, or other components shall be installed downstream from the pump and before any emission device.

~~*(7) Each irrigation zone shall include a flush valve/antisiphon valve to prevent back siphonage of water and soil.*~~

(7) When an irrigation system utilizes a pump, and discharges water at a point higher than the pump, a backwater valve shall be installed downstream of the pump to prevent back siphonage of water and soil.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for change:

During the 45-day public comment period, HCD received comments requesting amendment of Item (6) to not limit the pressure of gray water irrigation systems to 20 psi maximum, explaining that limiting these systems to 20 psi could prevent some systems from being installed, especially when the irrigation zone is higher than the pump.

After further review by staff, HCD has determined that the pressure limitation of 20 psi for all irrigation systems may be too low in some cases and should be determined by the allowable operating pressure

range of the specific components being installed in the irrigation system as identified in the manufacturers specifications and product documentation.

HCD also received comments regarding Item (7), which requires flush valves and antisiphon valves on gray water irrigation zones. HCD agrees with the commenters that the installation of antisiphon valves in some cases has the potential to cause gray water to be discharged onto the ground, and, further, that antisiphon valves used in gray water irrigation lines can become corroded, preventing the valve from functioning properly, potentially causing gray water to surface at the location of the antisiphon valves. Similarly, HCD recognizes that the requirement for flush valves on gray water irrigation lines in some cases has the potential to cause surfacing and/or ponding of gray water when opened.

Based upon consideration of these issues and input from commenters, HCD proposes to remove the limitation of 20 psi for all irrigation systems in Item (6), and replace Item (7) with a requirement for backwater valves to be installed downstream of any pump on irrigation systems that utilize a pump and discharge water at a point higher than the pump.

9. HCD proposes to amend Chapter 16, Section 1604.10 as follows:

1604.10 Design and Installation. The design and installation of on-site treated nonpotable gray water systems shall be in accordance with Section 1604.10.1 through Section ~~1604.10.5~~ 1604.10.6.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for change:

During the 45-day public comment period, HCD discovered an oversight in Section 1604.10. HCD proposed the addition of Section 1604.10.6 "Disinfection" and intended for Section 1604.10 to include this California amendment as part of the design and installation requirements specified therein. The requirements of Section 1604.10.6, which provide the residual chlorine testing criteria where chlorine is used for disinfection, were proposed in the initial development of Chapter 16 utilizing language from the 2012 IGCC that provides additional guidance for onsite treated nonpotable gray water. HCD proposes an editorial correction of Section 1604.10 to include the reference to Section 1604.10.6.

10. HCD proposes to amend Chapter 17, Section 1702.9.3 as follows:

CHAPTER 17 NONPOTABLE RAINWATER CATCHMENT SYSTEMS

~~**1702.9.3 Collection Surfaces.** Rainwater shall be collected from roof surfaces, or other manmade, above ground impervious collection surfaces. Rainwater collected from surface water runoff, vehicular parking surfaces or manmade surfaces at or below grade shall comply with the water quality requirements for on-site treated nonpotable gray water in Section 1604.0.~~

~~**Exception:** Collected rainwater or storm water used exclusively for subsurface landscape irrigation.~~

1702.9.3 Collection Surfaces. Rainwater shall be collected only from building roof surfaces.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for change:

During the 45-day public comment period, AB 1750, amended in the last days of the legislative cycle, was signed into law. This law is known as the “Rainwater Capture Act of 2012” and defines “Rainwater Catchment System”, which limits rainwater collected on a building site to only water captured from building rooftops in accordance with existing California water rights laws. HCD has modified the proposed definition of “Rainwater Catchment System” for consistency with AB 1750. As a result, HCD proposes to update the language regarding “collection surfaces” to comply with the new legislation.

11. HCD proposes to amend Chapter 17, Section 1702.9.5.5 as follows:

1702.9.5.5 Drainage and Overflow. Rainwater storage tanks shall be provided with a means of draining and cleaning. The overflow drain shall not be equipped with a shutoff valve. The overflow outlet shall discharge ~~as required by~~ in accordance with this code for storm drainage systems. Where discharging to the storm drainage system, the overflow drain *and tank drain* shall be protected from backflow of the storm drainage system by a backwater valve or other approved method. *Backwater valves shall be installed so that access is provided to the working parts for service and repair.*

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

Rationale for change:

During the 45-day public comment period, HCD received a comment advising that there was a typographical error in Section 1702.9.5.5. Upon review, HCD determined that an oversight had occurred during the development of the section and proposes an editorial correction to remove the extraneous words as indicated above.