

**EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE REVISION OF THE
2007 CALIFORNIA PLUMBING CODE (CPC)
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5**

The Department of Housing and Community Development (HCD) proposes to revise the 2007 edition of the California Plumbing Code (CPC) as presented on the following pages. HCD further proposes to:

- Repeal amendments to the model codes that are no longer necessary, repeal or amend building standards that are not addressed by a model code;
- Relocate or codify existing adopted and necessary amendments to the model code, the action of which has no regulatory effect; adopt new necessary amendments to the model code proposed for adoption; and/or
- Adopt new building standards that are not addressed by the model code.

LEGEND FOR EXPRESS TERMS:

1. Existing California amendments or code language being modified: *All language appears in italics, modified language is underlined or shown in ~~strikeout~~.*
 2. UPC language with new California amendments: UPC language shown in normal Arial 9 point; California amendments to UPC text shown underlined and in italics.
 3. Repealed text: All language appears in ~~strikeout~~.
 4. Notation: Authority and Reference citations are provided at the end of each chapter.
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AMENDMENTS:

**CHAPTER 2
DEFINITIONS**

203.0 – A –

Air Admittance Valve [HCD1 & HCD2] – A one-way valve designed to prevent trap siphonage without the extension of a vent pipe through the roof by admitting air into the plumbing drainage system when negative pressures develop.

211.0 – I –

Insanitary – A condition that is contrary to sanitary principles or is injurious to health.

Conditions to which “insanitary” shall apply include the following:

- (1) Any trap that does not maintain a proper trap seal.
- (2) Any opening in a drainage system, except where lawful, that is not provided with an approved water-sealed trap.
- (3) Any plumbing fixture or other waste-discharging receptor or device that is not supplied with water sufficient to flush and maintain the fixture or receptor in a clean condition.

Exception: [HCD1 & HCD2] Zero-water consumption urinals.

- (4)..... (text unchanged)
- (5)(text unchanged)
- (6).....(text unchanged)
- (7).....(text unchanged)

228.0 -Z -

Zero-Water Consumption Urinal (Waterless Urinal) [HCD1 & HCD2] – A plumbing fixture which does not require water supply and is designed to receive and convey the uninhibited flow of liquid waste to the gravity drainage system.

**CHAPTER 3
GENERAL REGULATIONS**

316.1.6 Solvent Cement Plastic Pipe Joints. Plastic pipe and fittings designed to be joined by solvent cementing shall comply with appropriate IAPMO Installation Standards.

ABS pipe and fittings shall be cleaned and then joined with solvent cement(s).

CPVC pipe and fittings shall be cleaned and then joined with listed primer(s) and solvent cement(s).

Exceptions:

(1) Listed solvent cements that do not require the use of primer shall be permitted for use with CPVC pipe and fittings, manufactured in accordance with ASTM D2846, ½ inch through 2 inches in diameter.

(2) **[HCD 1 & HCD 2]** *Low VOC One-Step Cement that does not require the use of primer shall be utilized with CPVC pipe and fittings, manufactured in accordance with ASTM D2846, ½ inch through 2 inches in diameter.*

PVC pipe and fittings shall be cleaned and joined with primer(s) and solvent cement(s).

A solvent cement transition joint between ABS and PVC building drain or building sewer shall be made using listed transition solvent cement.

~~**[HCD 1 & HCD 2]** For applications listed in Sections 108.2.1.1 through 108.2.1.3 regulated by the Department of Housing and Community Development, plastic Plastic pipe and fittings joined with solvent cement shall utilize Low-VOC primer(s), if a primer is required, and Low-VOC solvent cement(s) as defined in Section 215.~~

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17921, 17922, 18300, 18865 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

Reference: Health and Safety Code Sections 17000 through 17060, 17910 through 17995.5, 18630, 18640, 18690, 18873.1, 18873.2, 18873.4 and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

**CHAPTER 4
PLUMBING FIXTURES AND FIXTURE FITTINGS**

402.1 [HCD 1 & HCD 2] Flush volumes for low consumption water-saver water closets and urinals shall be in accordance with applicable standards referenced in Table 14-1. Flow rates for shower heads and faucets shall meet the requirements of this section and applicable standards referenced in Table 14-1. ~~**[HCD 1 & HCD 2]** See Health and Safety Code Section 17921.3.~~

402.1.1 Shower Heads [HCD 1 & HCD 2] *Shower heads shall be designed and installed so that they will not exceed a water supply flow rate of 2.5 gallons (9.4 liters) per minute measured at 80 psi.*

402.1.2 Faucets [HCD 1 & HCD 2] *Faucets at kitchens, lavatories, wetbars, laundry sinks, or other similar use fixtures shall be designed and manufactured so that they will not exceed a water supply flow rate of 2.2 gallons (8.3 liters) per minute measured at 60 psi.*

402.2 Water Closets. Water closets, either flush tank, flushometer tank, or flushometer valve operated shall have an average consumption of not more than 1.6 gallons (6.1 liters) of water per flush.

402.2.1 Water Closets after January 1, 1994 [HCD 1 & HCD 2] *Water Closets, either flush tank, flushometer tank, or flushometer valve operated sold or installed after January 1, 1994 shall use no more than an average of 1.6 gallons (6.1 liters) of water per flush. See Health and Safety Code Section 17921.3.*

402.2.2 Water Closets on or after July 1, 2011 [HCD 1 & HCD 2] *Water Closets, either flush tank, flushometer tank, or flushometer valve operated sold or installed on or after July 1, 2011 shall have an effective flush volume in compliance with the following:*

(1) Single Flush Toilets - The effective flush volume shall not exceed 1.28 gallons (4.8 liters) when tested in accordance with ASME A112.19.2.

(2) Dual Flush Toilets - The effective flush volume shall not exceed 1.28 gallons (4.8 liters) when tested in accordance with ASME A112.19.2 and ASME A112.19.14.

402.3 Urinals. Urinals shall have an average water consumption of not more than 1.0 gallon (3.8 liters) of water per flush.

402.3.1 Urinals after January 1, 1994 [HCD1 & HCD2] *Urinals and associated flushometer valves sold or installed after January 1, 1994 shall use no more than an average of one gallon (3.8 liters) per flush. See Health and Safety Code Section 17921.3.*

402.3.2 Urinals on or after July 1, 2011 [HCD1 & HCD2] *Urinals and associated flushometer valves sold or installed on or after July 1, 2011 shall use no more than 0.5 gallons (1.9 liters) per flush and meet performance criteria as established in ASME A112.19.2.*

402.3.3 Zero-Water Consumption Urinals (Waterless Urinals) [HCD1 & HCD2] *Urinal manufacture, installation, use and maintenance shall be in compliance with the requirements of the listing, manufacturer's specifications and the applicable standards referenced in Table 14-1 for vitreous china or plastic urinals.*

405.2 Prohibited Urinals. Floor-type and wall-hung type trough urinals shall be prohibited. Urinals that have an invisible seal or that have an unventilated space or wall that is not thoroughly washed at each discharge shall be prohibited.

Exception: [HCD1 & HCD2] *Zero-water consumption urinals.*

**CHAPTER 6
WATER SUPPLY AND DISTRIBUTION**

TABLE 6-4¹

Material	Water Distribution Pipe and Fittings		Building Supply Pipe and Fittings
	Hot	Cold	
Asbestos – Cement			X
Brass	X	X	X
Copper	X	X	X
Cast Iron	X	X	X
CPVC	X	X	X
Galvanized Malleable Iron	X	X	X
Galvanized Wrought Iron	X	X	X
Galvanized Steel	X	X	X
PE			X
PE-AL-PE	X	X	X
PEX ⁺	X	X	X
PEX-AL-PEX ¹	X	X	X
PVC			X

¹ ~~[For BSC, DSA/SS & HCD] The use of PEX and PEX-AL-PEX in potable water supply systems is not adopted for applications under the authority of the Building Standards Commission and the Division of State Architect and the Department of Housing and Community Development.~~

604.11 PEX. ~~[Not Adopted by HCD]~~ Cross-linked polyethylene (PEX) tubing shall be marked with the appropriate standard designation(s) listed in Table 14-1 for which the tubing has been approved. PEX tubing shall be installed in compliance with the provisions of this section.

604.11.1 PEX Fittings. ~~[Not Adopted by HCD]~~ Metal insert fittings, metal compression fittings, and cold expansion fittings used with PEX tubing shall be manufactured to and marked in accordance with the standards for the fittings in Table 14-1.

604.11.2 Water Heater Connections. ~~[Not Adopted by HCD]~~ PEX tubing shall not be installed within the first eighteen (18) inches (457mm) of piping connected to a water heater.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17921, 17922, 18300, 18865 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

Reference: Health and Safety Code Sections 17000 through 17060, 17910 through 17995.5, 18630, 18640, 18690, 18873.1, 18873.2, 18873.4 and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

CHAPTER 9 VENTS

905.4 All vent pipes shall extend undiminished in size above the roof, or shall be reconnected with a soil or waste vent of proper size.

Exception: [HCD1 & HCD2] Installation utilizing an air admittance valve.

906.1 Each vent pipe or stack shall extend through its flashing and shall terminate vertically not less than six (6) inches (152 mm) above the roof nor less than one (1) foot (305 mm) from any vertical surface.

Exception: [HCD1 & HCD2] Installation utilizing an air admittance valve.

909.1 Air Admittance Valves [HCD1 & HCD2].

909.1.1 General [HCD1 & HCD2]. *An air admittance valve shall meet the requirements of this section. Air admittance valves shall comply with ASSE 1051 or the requirements of another approved testing agency.*

909.1.2 Where Permitted [HCD1 & HCD2]. *At a kitchen island or similar island location.*

909.1.3 Installation [HCD1 & HCD2]. *Air admittance valves shall be installed in accordance with their listing, manufacturer's installation instructions, and the requirements provided in this code. The device shall not be installed to function as a vent for more than one fixture.*

909.1.4 Access, Location, and Ventilation [HCD1 & HCD2]. *Air admittance valves shall be accessible for inspection, maintenance, and removal. The device shall be located a minimum of 4 inches (mm) above the trap weir in a location that permits a free flow of air. When an air admittance valve is located within a wall or similar enclosed space, a vented or louvered access panel shall be provided.*

909.1.5 Testing [HCD1 & HCD2]. *Air admittance valves shall be installed after testing and approval of the drain, waste, and vent system as required in Chapter 7 of this code.*

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17921, 17922, 18300, 18865 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

Reference: Health and Safety Code Sections 17000 through 17060, 17910 through 17995.5, 18630, 18640, 18690, 18873.1, 18873.2, 18873.4 and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

CHAPTER 10 TRAPS AND INTERCEPTORS

1003.1 Each trap, except for traps within an interceptor or similar device, shall be self-cleaning. Traps for bathtubs, showers, lavatories, sinks, laundry tubs, floor drains, urinals, drinking fountains, dental units, and similar fixtures shall be of standard design and weight and shall be of ABS, cast brass, cast iron, lead, PP, PVC, or other approved material. An exposed and readily accessible drawn brass tubing trap, not less than 17 B&S Gauge (0.045 inch) (1.1 mm), may be used on fixtures discharging domestic sewage.

Exceptions:

(1) Drawn brass tubing traps shall not be used for urinals. Each trap shall have the manufacturer's name stamped legibly in the metal of the trap and each tubing trap shall have the gauge of the tubing in addition to the manufacturer's name. Every trap shall have a smooth and uniform interior waterway.

(2) **[HCD1 & HCD2] Zero-water consumption urinals.**

1005.0 Trap Seals. Each fixture shall have a water seal of not less than two (2) inches (51 mm) and not more than four (4) inches (102 mm), except where a deeper seal is found necessary by the Authority Having Jurisdiction. Traps shall set true with respect to their water seals and, where necessary, they shall be protected from freezing.

Exception: [HCD1 & HCD2] Zero-water consumption urinals which utilize other types of listed trap seal devices.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17921, 17922, 18300, 18865 and 19990; and Government Code Sections 12955.1 and 12955.1.1.

Reference: Health and Safety Code Sections 17000 through 17060, 17910 through 17995.5, 18630, 18640, 18690, 18873.1, 18873.2, 18873.4 and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.