

**FINAL EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DIVISION OF THE STATE ARCHITECT (DSA/SS)**

**REGARDING PROPOSED AMENDMENT OF THE
2007and 2010 CALIFORNIA PLUMBING CODE (CPC) FOR THE
CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 24, PART 5**

LEGEND FOR EXPRESS TERMS

1. Existing California amendments or code language being modified: All such language appears in *italics*, modified language is underlined.
2. New California amendments: All such language appears underlined and in italics.
3. Repealed text: All such language appears in ~~strikeout~~.

The California Building Standards Code (California Code of Regulations, Title 24, Parts 1, 2, 3, 4, 5, 6, 7, 8, 10 & 12) is published in its entirety every three years and is effective to all buildings that submit an application for a building permit during its effective period. Each triennial edition of the California Building Standards Code becomes effective 180 days after its publication and is effective at the time an application for a building permit is submitted.

These proposed regulations will amend the 2007 edition of the California Plumbing Code (CPC) based on the 2006 edition of the Uniform Plumbing Code (UPC) of the International Association of Plumbing and Mechanical Officials (IAPMO) for state owned buildings, including buildings constructed by the Trustees of the California State University and buildings constructed by the Regents of the University of California that are permitted under the California Plumbing Code (CPC). Further, California law makes the UPC standards adopted by the Commission applicable to all occupancies in California.

In January 2009, the Building Standards Commission adopted "PEX regulations" that allowed the statewide use of PEX Tubing by removing the CPC's former prohibition against using PEX. In this regulatory action, the California Building Standards Commission proposes to amend the regulations relating to PEX by repealing and adopting PEX regulations. The PEX regulations are the subject of litigation. As part of the litigation, the court has ordered that the PEX regulations must be "vacate[d] and set aside" until there is full compliance with the requirements of the California Environmental Quality Act. As required by the court's order, the Building Standards Commission has prepared a Second Revised Draft Environmental Impact Report (SRDEIR) which, if certified by the Building Standards Commission, will constitute full compliance with CEQA and will allow the Commission to adopt and approve PEX regulations. To comply with the court's order it is anticipated the Commission will repeal the current PEX regulations and concurrently adopt PEX regulations. These "Final Express Terms" reflect this two-step process. Section "A" of these Final Express Terms describes the Commission's action to repeal the PEX regulations, and Section "B" of these Final Express Terms describes the Commission's action to adopt PEX regulations.

A. The express terms repealing the action taken by the commission are presented in the following matrix adoption table and express terms.

Amend the following sections for Chapter 6 of the 2007 CPC:

**CHAPTER 6 WATER SUPPLY AND DISTRIBUTION
MATRIX ADOPTION TABLE**

Adopting Agency	BSC	COMMENTS
Adopt entire 2006 UPC Chapter without amendments		
Adopt Entire 2006 UPC Chapter as amended (amended sections listed below)		

Adopt Only those sections of the 2006 UPC which are listed below and/or Adopt Only those California promulgated sections listed below	X	
604.11 UPC	†	
604.11.1 UPC	†	
604.11.2 UPC	†	
Table 6-4 Footnote 1	X	
Table 6-4 Footnote 2	X	repealed
Table 6-4 Footnote 3	X	repealed

This state agency adopts the entire chapter except for those sections indicated by the following symbol: †

**CHAPTER 6
WATER SUPPLY AND DISTRIBUTION**

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TABLE 6-4^{1,2,3}

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^{2,3}	X	X	X
PEX-AL-PEX ¹	X	X	X
PVC			X

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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 the State Architect and the Department of Housing and Community Development.

² When PEX tubing is placed in soil and is used in potable water systems intended to supply drinking water to fixtures or appliances, the tubing or piping shall be sleeved with a material approved for potable water use in soil or other material that is impermeable to solvents or petroleum products.

³ PEX tubing shall meet the requirements of NSF P171 CL-R, ASTM F-876-08 or an equivalent or more stringent

standard when used in continuously recirculating hot water systems where chlorinated water is supplied to the system and the PEX tubing is exposed to the hot water 100% of the time.

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604.11 PEX. *[Not Adopted by DSA/SS, HCD, AGR, BSC, DHS]* 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 DSA/SS, HCD, AGR, BSC, DHS]* 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 DSA/SS, HCD, AGR, BSC, DHS]* PEX tubing shall not be installed within the first eighteen (18) inches (457mm) of piping connected to a water heater.

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Notation

Authority: Health and Safety Code §§18934.5, 18938(b)

References: Health and Safety Code §§18916, 18929.1, 18938(b)

Rationale: A court has ordered that the PEX regulations must be "vacate[d] and set aside" until there is full compliance with the requirements of the California Environmental Quality Act.

B. The express terms for adopting PEX regulations into the 2010 CPC are presented in the following express terms.

**CHAPTER 6
WATER SUPPLY AND DISTRIBUTION**

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TABLE 6-4^{1,2,3}

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^{2,3}	X	X	X
PEX-AL-PEX¹	X	X	X
PVC			X

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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 the State Architect and the Department of Housing and Community Development.~~

² ~~When PEX tubing is placed in soil and is used in potable water systems intended to supply drinking water to fixtures or appliances, the tubing or piping shall be sleeved with a material approved for potable water use in soil or other material that is impermeable to solvents or petroleum products.~~

³ ~~PEX tubing shall meet the requirements of NSF P171 CL-R, ASTM F 876-08 or an equivalent or more stringent standard when used in continuously recirculating hot water systems where chlorinated water is supplied to the system and the PEX tubing is exposed to the hot water 100% of the time.~~

...

604.11 PEX. ~~[Not Adopted by DSA/SS, HCD, AGR, BSC, DHS]~~ 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 DSA/SS, HCD, AGR, BSC, DHS]~~ 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 DSA/SS, HCD, AGR, BSC, DHS]~~ PEX tubing shall not be installed within the first eighteen (18) inches (457mm) of piping connected to a water heater.

Rationale: CBSC proposes to adopt the above-listed model code sections into Title 24, Part 5, CPC, with modifications. CBSC has previously proposed adoption of the UPC without amendment to restrict the use of PEX piping. In these previous adoptions, state agencies have received comments asserting that the California Environmental Quality Act (CEQA) must be satisfied in order to adopt the model code as written for use in California. In these previous adoptions, CBSC has not agreed with the comments, but decided to include a restriction for PEX to avoid legal challenges that could potentially delay the adoption of the UPC or force to withdraw the entire UPC adoption package due to the voluminous comments received from stakeholders who want the use of PEX restricted in California.

The agency anticipates receiving similar comments and intends to complete the necessary tasks to legally adopt these sections with necessary amendments. If necessary, CBSC will either propose amendments or withdraw all or portions of the initial proposal. The banners have been proposed for removal from Sections 604.11, 604.11.1 and 604.11.2 to maintain consistency with the format of this code.