STATE OF CALIFORNIA
BUILDING STANDARDS COMMISSION

FINAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS OF THE DEPARTMENT OF WATER RESOURCES REGARDING THE 2019 CALIFORNIA PLUMBING CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5

(DWR 01/18)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

LEGEND FOR EXPRESS TERMS (Based on model codes - Parts 2, 2.5, 3, 4, 5, 9, 10)

1. Model Code language appears upright.
2. Existing California amendments appear in *italics*.
3. Amended model code or new California amendments appear *underlined and in italics*.
4. Repealed model code language appears ~~upright and in strikeout~~.
5. Repealed California amendments appear in ~~*italics and strikeout*~~.

The Department of Water Resources (DWR) proposes to carry forward certain sections of the existing 2016 edition of the California Plumbing Code (CPC) as amended by the 2016 Intervening Code Adoption Cycle and the 2018 edition of the Uniform Plumbing Code (UPC) and make necessary amendments to be included into the 2019 edition of the CPC as presented on the following pages. DWR intends to move the sections of Chapter 15 of the 2016 CPC as amended to align with the organizational restructuring in the 2018 UPC that occurred since the 2015 Uniform Plumbing Code was codified. DWR also intends to make non-substantive amendments to certain sections of the CPC in Chapter 1 to clarify the application of DWR-adopted standards and in Chapters 2, 6, and 15 required because of the 2018 UPC update. The specific changes are grouped and described in the following items 1 through 5.

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FINAL EXPRESS TERMS

1. DWR proposes to carry forward with amendments the following sections of Chapter 1 of the CPC as follows:

CHAPTER 1
ADMINISTRATION
DIVISION I
CALIFORNIA ADMINISTRATION

1.13.0 Department of Water Resources (DWR)

1.13.1 Application – ~~*Installation, construction, alteration, or repair of recycled water systems for water closets, urinals, trap primers for floor drains, floor sinks and other allowed uses.*~~ *Design standards to safely plumb buildings with both potable and recycled water systems.*

Enforcing Agency – *State or local agency ...*

. . .

1.13.2 Adopting Agency Identification. *The provisions of this ...*

Notation:

Authority: Water Code Section: 13557.

Reference(s): Water Code Sections: 13557.

2. DWR proposes to carry forward the following sections of Chapter 2 of the CPC as follows:

CHAPTER 2
DEFINITIONS

206.0

Disinfected Tertiary Recycled Water. *Filtered and ...*

220.0

Reclaimed (Recycled) Water. *Nonpotable water that meets California ...*

Recycled Water Supply System. *The building supply ...*

Notation:

Authority: Water Code Section: 13557.

Reference(s): Water Code Sections: 13557.

3. DWR proposes to carry forward the following sections of Chapter 6 of the CPC with a minor amendment as follows:

CHAPTER 6
WATER SUPPLY AND DISTRIBUTION

601.2 Hot and Cold Water Required. Except where ...
Exceptions:

. . .

(3) (DWR) For all residential occupancies, ...
(4) (DWR) For non-residential occupancies, ...
(5) (DWR) Where a public agency requires ...

In occupancies where plumbing fixtures are installed for private use, ...

601.3.3 Alternate Water Sources. Alternate water ...

. . .

Exception: [DWR] *For recycled water supply systems that are within or a part of a building, the provisions of Section ~~1503.7~~1505.7 shall apply.*

Notation:

Authority: Water Code Section: 13557.

Reference(s): Water Code Sections: 13554.

4. DWR proposes to carry forward with amendments sections 1501, 1502, and 1503 of Chapter 15 of the CPC as follows:

CHAPTER 15
§§1501, 1502, and 1503
ALTERNATIVE WATER SOURCES FOR NONPOTABLE APPLICATIONS

~~***Intent***~~
~~*The provisions of this chapter are intended to:*~~

1. ~~*Conserve potable water by facilitating greater reuse of laundry, shower, lavatory and similar sources of discharge, or by the use of alternate water sources, where available.*~~
2. ~~*Reduce the number of non-compliant gray water systems by making legal compliance easily achievable.*~~
3. ~~*Provide guidance for avoiding potentially unhealthful conditions.*~~
4. ~~*Provide an alternative way to relieve stress on a private sewage disposal system by diverting the graywater*~~.

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1501.0 General

1501.1 Applicability. The provisions ...

1501.1.1 Allowable Use of Alternate Water. Where approved ...

1501.2 System Design. Alternate water source systems ...

1501.3 Permit. It shall be ...

1501.4 Component identification. System components shall ...

1501.5 Maintenance and Inspection. Alternate water source systems ...

Exception: (DWR) *Recycled water supply systems that are within or a part of a building shall comply with Section ~~1503.15~~ 1505.15.*

1501.5.1 ~~1501.5.3~~ Maintenance Responsibility. The required maintenance ...

1501.6 Operation and Maintenance Manual. An operation and maintenance manual for gray water, ~~and~~ on-site treated *nonpotable* water, *and recycled water supply* systems required to have a permit in accordance with Section 1501.3, *Section ~~1503.2~~ 1505.2 and Section 1504.2* shall be supplied to the building owner by the system designer *or installer*. The operating and maintenance manual shall include the following:

. . .

(5) Applicable testing, inspection, and maintenance frequencies in accordance with ~~Table~~ *Section 1501.5 or Section ~~1503.15~~ 1505.15 as applicable.*

. . .

1501.7 Minimum Water Quality Requirements. The minimum water quality for alternate water source systems shall meet the applicable water quality requirements for the intended application as determined by the Authority Having Jurisdiction. ~~In the absence of water quality requirements, the EPA/625/R-04/108 contains recommended water reuse guidelines to assist regulatory agencies to develop, revise, or expand alternate water source water quality standards.~~ *Water quality requirements for on-site treated nonpotable graywater shall comply with Section 1504.10.2. Recycled water shall comply with the water quality requirements of Section ~~1503.14~~ 1505.14.*

. . .

1501.8 Material Compatibility. Alternate water source systems ....

1501.9 (formerly 1501.10) Signage

Signage for on-site treated nonpotable gray water shall comply with Section ~~1501.10.1~~ 1501.9.1 and Section ~~1501.10.2~~ 1501.9.2. Signage for reclaimed (recycled) water shall comply with Section ~~1503.12~~ 1505.12.

1501.9.1 (formerly 1501.10.1) Commercial, Industrial, Institutional, *and Residential* Restroom Signs. A sign shall be installed...

1501.9.~~1~~2 (formerly 1501.10.2) Equipment Room Signs. Each room ...

1501.10 (formerly 1501.9) System Controls. Controls for pumps...

1502.0. Inspection and Testing

1502.1 General (Formerly 1501.11 Inspection and Testing). Alternate water...

Exception: (DWR) *Recycled water supply systems that are within or a part of a building shall comply with Section ~~1503.13~~ 1505.13.*

. . .

1502.4 (formerly *1501.12)* Separation Requirements. Underground alternate ...

. . .

Exception: [DWR] *Recycled water supply systems that are within or a part of a building shall comply with Section 1505.11.*

1502.5 Abandonment. Alternate water source systems ...

1502.5.1 General. An abandoned system or ...

1502.5.2 Underground Tank. An underground water storage tank ...

1502.6 Sizing. Unless otherwise provided ...

1503.0 Gray Water Systems

1503.3 (formerly 1502.3) Connections to Potable and Reclaimed (Recycled) Water Systems. Gray water systems ...

Exceptions:

(1) ...

(2) *A potable water supply may be connected temporarily for initial testing of the untreated graywater system as required in Section ~~1501.11.2.2~~ 1502.3.2.*

Notation:

Authority: Water Code Section: 13557.

Reference(s): Water Code Sections: 13557.

5. DWR proposes to carry forward with amendments sections 1505 and 1506 of Chapter 15 of the CPC as follows:

CHAPTER 15
§§1505 and 1506
ALTERNATIVE WATER SOURCES FOR NONPOTABLE APPLICATIONS

1505.0 (formerly 1503.0) ~~Reclaimed~~ (Recycled) Water *Supply* Systems *in Buildings*

1505.1 (formerly 1503.1) General. The provisions of ~~this section~~ *Section ~~1503.0~~ 1505.0 through Section ~~1503.15~~ 1505.15* shall apply to *safely plumb buildings with both potable and recycled water supply systems. Unless otherwise specified in this code, the general provisions applying to alternate water systems pursuant to Section 1501.0 through Section 1501.14 shall apply to recycled water supply systems. The provisions in this section encompass* the installation, construction, alteration, and repair of ~~reclaimed (~~recycled~~)~~ water *supply* systems *that are within or a part of a building and receive reclaimed (recycled) water provided by a water/wastewater utility. When dealing with recycled water supply systems, the Authority Having Jurisdiction and Enforcing Agency may include the recycled water purveyor or potable water purveyor in accordance with their respective statutory authority and responsibility as provided on their respective permits for supplying water.*

1505.1.1 **(formerly 1503.1.1) *Allowed Uses.*** *Allowed...*

1505.1.2 **(formerly 1503.1.2) *Structures Allowed for Toilet and Urinal Flushing.*** *In accordance with Water Code Section 13553...*

1505.2 (formerly 1503.2) Permit. It shall be ...

. . .

1505.2.1 (formerly 1503.2.1) Plumbing Plan Submission. No permit ...

1505.3 (formerly 1503.3) System Changes. No changes or connections ...

1505.4 (formerly 1503.4) Connections to Potable or Reclaimed (Recycled) Water Systems. ~~Reclaimed (~~recycled~~)~~ water *supply* systems ...

Exceptions:

(1) ...

(2) *A potable water supply may be connected temporarily for initial testing of the recycled water supply system as provided in Section 1505.13.2.2 ~~1503.13.2.2~~. Prior to temporarily connecting the potable line to the recycled water supply system for initial testing purposes, the potable line must have a reduced-pressure principle backflow preventer installed.*

(3) ...

1505.5 (formerly 1503.5) Initial Cross-Connection Test. A cross-connection test is

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required in accordance with Section ~~1502.3~~ ~~*1503.13.2.2*~~ *1505.13.2.2*. Before the building is occupied or the system is activated, the installer shall perform ~~the~~ *an* initial cross-connection test in the presence of the Authority Having Jurisdiction ~~and~~ *or* other authorities having jurisdiction. The test shall be ruled successful by the Authority Having Jurisdiction before final approval is granted.

1505.6 (formerly 1503.6) ~~Reclaimed (Recycled)~~ Water *Supply* System Materials. ~~Reclaimed (~~recycled~~)~~ water supply ~~and distribution~~ system materials ...

1505.7 (formerly 1503.7) ~~Reclaimed (Recycled)~~ Water *Supply* System Color and Marking Information. *All mechanical equipment...*

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1505.8 (formerly 1503.8) Valves. Valves, except ...

1505.8.1 **(formerly 1503.8.1)** ***Valve Seals.*** *The master reclaimed ...*

1505.8.2 **(formerly 1503.8.2)** ***Valve and Appurtenance Access Door Signs.*** *Each reclaimed (recycled) water valve within a wall shall have its access door into the wall equipped with a warning sign approximately 6 inches by 6 inches (152 mm x 152 mm) with wording in approximately 3/8 inch (9.5 mm) letters on a purple background. The wording text and format of the sign shall be substantially the same as that specified in Section 1505.12.3 ~~1503.12.3~~. The signs shall be attached inside the access door frame and shall hang in the center of the access door frame. This sign requirement shall be applicable to any and all access doors, hatches, etc., leading to reclaimed (recycled) water piping and appurtenances.*

1505.9 (formerly 1503.9) Hose Bibbs. Hose bibbs shall not be allowed ...

Exceptions:
In accordance with Health and Safety Code ~~Sections~~ Section 8117 and Section 8118, hose bibbs are approved for use in cemeteries supplied with reclaimed (recycled) water. A hose bibb in an area subject to access by the general public shall be equipped with a sign marked "CAUTION: NONPOTABLE RECYCLED WATER, DO NOT DRINK," and one of the symbols in Figure 1505.9 ~~1503.9~~.

FIGURE 1505.9

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1505.10 (formerly 1503.10) Required Appurtenances. The ~~reclaimed~~ (recycled~~)~~ water *supply* system and the potable water system within the building *and the premises* shall be provided with the required appurtenances (e.g., valves, air/vacuum relief valves, etc.) to allow for ~~deactivation or drainage~~ *testing* as required for a cross-connection test in accordance with Section ~~1502.3~~ ~~*1503.13.2*~~ *1505.13.2*.

1505.11 (formerly 1503.11) ~~Same Trench as Potable Water Pipes~~ *Pipe Separation in Trenches*. Reclaimed (recycled) water pipes shall be permitted ...

1505.12 (formerly 1503.12) ~~Signs~~*Signage*. Signs in rooms and water closet tanks in buildings using reclaimed (recycled) water shall be in accordance with ~~Section 1501.9 and~~ Section ~~1501.9.1~~ ~~*1503.12.1*~~ *1505.12.1*, *Section* ~~*1503.12.2*~~*1505.12.2*, *and Section* ~~*1503.12.3*~~ *1505.12.3*. *Signs on access doors to valves and appurtenances shall be in accordance with Section* ~~*1503.8.2*~~ *1505.8.2*.

1505.12.1* (formerly 1503.12.1) *Commercial, Industrial, Institutional, and Residential Restroom Signs. *A sign shall be installed ...*

1505.12.2* (formerly 1503.12.2) *Tank-Type Toilet Signs. *Where tank-type ...*

1505.12.3* (formerly 1503.12.3) *Equipment Room Signs. *Each room ...*

1505.13 (formerly 1503.13) Inspection and Testing. ~~Reclaimed (recycled~~) water *supply* systems shall be inspected and tested in accordance with Section ~~1502.1~~ ~~*1503.13.1*~~ *1505.13.1* *and Section* ~~*1503.13.2*~~ *1505.13.2*. *The reclaimed (recycled) water purveyor or other designated appointee may substitute for the Authority Having Jurisdiction for the purpose of inspections and tests pursuant to this section.*

1505.13.1* (formerly 1503.13.1) *Supply System Inspection and Test. *Recycled ...*

1505.13.2* (formerly 1503.13.2) *Cross-Connection Inspection and Testing. *An initial visual inspection and cross-connection test shall be performed on both the potable and recycled water supply systems before the initial operation of the ~~reclaimed (recycled~~) water ~~source~~ supply system. During an initial or subsequent cross-connection test, the potable water system and ~~reclaimed (recycled~~) water ~~source~~ supply system shall be isolated from each other and independently inspected and tested to ensure there is no cross-connection in accordance with Section* ~~*1503.13.2.2*~~ *1505.13.2.2*. *Initial or subsequent inspections or tests shall be performed in accordance with Section* ~~*1503.13.2.1*~~ *1505.13.2.1 through Section* ~~*1503.13.2.4*~~ *1505.13.2.4*.

(1) ...

(2) A cross-connection test pursuant to Section ~~*1503.13.2.2*~~ *1505.13.2.2 shall be performed on the premises of a recycled water supply system when there is material reason to believe that the potable water system or recycled water supply system separation from another water supply has been compromised. A material reason to believe that the system has been compromised may be based on, but*

is not limited to, evidence gathered (a) during a visual inspection performed pursuant to Section ~~1503.13.2.1~~ 1505.13.2.1, (b) as a result of an inspection performed following complaints of water quality or flow conditions consistent with a compromised system, or (c) during a visual inspection that indicates that the ~~reclaimed~~ (recycled) water supply system has been modified.

1505.13.2.1 **(formerly 1503.13.2.1)** ***Visual System Inspection.*** *A visual dual system inspection shall be conducted by the Authority Having Jurisdiction and other authorities having jurisdiction to verify that no modifications were made, and that no cross-connections are visible as follows:*

(1) Meter locations ...
(2) All pumps and equipment...
(3) All valves shall be checked ...

1505.13.2.2 **(formerly 1503.13.2.2)** ***Cross-Connection Test.*** *A cross-connection test shall be performed pursuant to Section ~~1503.13.2~~ 1505.13.2. The test shall be conducted in the presence of the Authority Having Jurisdiction or other authorities having jurisdiction to determine whether a cross connection has occurred as follows:*

. . .

(3) All fixtures, potable and reclaimed (recycled) water source, shall be tested and inspected for flow. Flow from a ~~reclaimed~~ (recycled) water supply ~~source~~ system outlet indicates a cross-connection. No flow from a potable water outlet shall indicate that it is connected to the recycled water supply system.

. . .

(9) The drain on the potable water system shall be checked for flow during the test and at the end of the test.

. . .

1505.13.2.3 **(formerly 1503.13.2.3)** ***Discovery of Cross-Connection.*** *In the event ...*

. . .

(5) The building and its premises shall be retested in accordance with Section ~~1503.13.2.1~~ 1505.13.2.1 and Section ~~1503.13.2.2~~ 1505.13.2.2.

. . .

1505.13.2.4 **(formerly 1503.13.2.4)** ***Periodic Inspection.*** *Periodic visual inspections of recycled water supply systems shall be required by the recycled water supplier or designee following the procedures in Section ~~1503.13.2.1~~ 1505.13.2.1. Pursuant to California Code of Regulations, Title 22, Section 60316, annual visual inspections shall be required for recycled water supply systems that are within or a part of a buildings.*

1505.14 **(formerly 1503.14)** ***Minimum Water Quality Requirements for Reclaimed (Recycled) Water.*** *The minimum water quality for reclaimed ...*

1505.15 **(formerly 1503.15)** ***Maintenance and Inspection.*** *Recycled water supply systems and components shall be inspected and maintained in accordance with the manufacturer's recommendations and/or as required by the Authority Having Jurisdiction. The frequency of testing, inspection, and maintenance shall be in accordance with Table ~~1503.15~~ 1505.15. The required inspection and maintenance*

shall be the responsibility of the property owner, unless otherwise required by the Authority Having Jurisdiction.

TABLE ~~1503.15~~ 1505.15

. . .

1506.0 (formerly 1504.0) On-Site Treated Nonpotable *Gray* Water Systems

1506.4 (formerly 1504.4) Connections to Potable or Reclaimed (Recycled) Water Systems. On-site treated nonpotable *gray* water systems ...

Exceptions:

(1) ...

(2) *A potable water supply may be connected temporarily for initial testing of the on-site treated nonpotable gray water system as provided in Section ~~1501.11.2.2~~ 1502.3.2.*

Notation:

Authority: Water Code Section: 13557.

Reference(s): Water Code Sections: 13551, 13552.2, 13552.4, 13552.6, 13552.8, 13553, 13554, 13555.3. Health and Safety Code Sections: 8117, 8118.