

1 [Plumbing Code - Cross-Connection Controls]

2

3 **Ordinance amending the Plumbing Code to delete the local amendment to the**
4 **California Plumbing Code referring to the San Francisco Public Utilities Commission’s**
5 **Rules and Regulations in the section on cross-connection control, and to add local**
6 **cross-connection controls for beverage dispensers and industrial water chillers and a**
7 **testing requirement for backflow prevention assemblies or devices; affirming the**
8 **Planning Department’s determination under the California Environmental Quality Act;**
9 **and directing the Clerk of the Board of Supervisors to forward this Ordinance to the**
10 **California Building Standards Commission upon final passage.**

11 NOTE: **Unchanged Code text and uncodified text** are in plain Arial font.
12 **Additions to Codes** are in *single-underline italics Times New Roman font*.
13 **Deletions to Codes** are in *strikethrough italics Times New Roman font*.
14 **Board amendment additions** are in double-underlined Arial font.
15 **Board amendment deletions** are in ~~strikethrough Arial font~~.
16 **Asterisks (* * * *)** indicate the omission of unchanged Code
17 subsections or parts of tables.

18 Be it ordained by the People of the City and County of San Francisco:

19 Section 1. Findings.

20 (a) The Planning Department has determined that the actions contemplated in this
21 ordinance comply with the California Environmental Quality Act (California Public Resources
22 Code Sections 21000 et seq.). Said determination is on file with the Clerk of the Board of
23 Supervisors in File No. 180969 and is incorporated herein by reference. The Board affirms
24 this determination.

25 (b) On August 21, 2019, the Building Inspection Commission considered this
modified ordinance at a duly noticed public hearing pursuant to Charter Section D3.750-5.

1 (c) ~~No findings are required for this ordinance~~ Findings under Section 17958.7 of
2 the California Health and Safety Code ~~because the ordinance deletes a local amendment to~~
3 ~~the California Plumbing Code.~~ are reasonably necessary due to San Francisco's topography:

4 (i) San Francisco has numerous tall buildings, among the tallest in
5 California. The failure of a backflow preventer has a greater potential to allow backflow into
6 the public water system because of higher pressures generated in tall buildings and/or where
7 a building is elevated well above the street-level service connection. Requiring the installation
8 of only backflow preventers that have passed field evaluation tests mitigates against the
9 higher risk of failure due to San Francisco's topography.

10 (ii) Carbonated beverage dispensers with upstream copper pipe pose a risk
11 of health hazard from leached copper in the event of backpressure. ASSE 1022 devices are
12 not testable and therefore cannot undergo testing to assure proper function, as do the vast
13 majority of backflow preventers in San Francisco. Because of the higher consequences of
14 failure due to local topography, as described in (i) above, ASSE 1022 devices are
15 inappropriate for use in San Francisco in systems with upstream copper pipe.

16
17 Section 2. Section 603.0 of the Plumbing Code is hereby amended by revising
18 Sections 603.2, 603.5.12, adding Section 603.4.22 and deleting Section 603.3, as follows:

19 **SEC. 603.0 – CROSS-CONNECTION CONTROL**

20 * * * *

21 Revise Table 603.2 as follows:

22 Add a footnote for the Applicable Standards heading that states:
23 All backflow prevention assemblies or devices that are testable must have passed laboratory
24 and field evaluation tests performed by a recognized testing organization.

25 Revise the tenth entry in the Table to read as follows:

1	Backflow preventer for Carbonated Beverage Dispensers (two independent check valves with a vent to the atmosphere)	ASSE 1022	X	--	X	--	Installation includes carbonated beverage machines or dispensers. These devices operate under intermittent or continuous pressure conditions. <u>This device is only permitted in systems with no upstream copper pipe. Otherwise, a reduced pressure principle backflow prevention assembly is required.</u>
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8 ~~603.3~~ Add a new second paragraph to this section as follows:

9 *Refer to SFPUC's Rules & Regs Section "A and/or G Cross connection Control", Table I and*
 10 *Table 603.2 of the CPC. The more stringent shall apply.*

12 Revise Section 603.5.12 as follows:

13 **603.5.12 Beverage Dispensers.** Potable water supply to beverage dispensers, carbonated
 14 beverage dispensers, or coffee machines shall be protected by an air gap, a reduced
 15 pressure principle backflow prevention assembly, or a vented backflow preventer that
 16 complies with ASSE 1022, except that a vented backflow preventer may not be used to
 17 protect carbonated beverage dispensers in systems with upstream copper pipe. For
 18 carbonated beverage dispensers, piping material installed downstream of the backflow
 19 preventer shall not be affected by carbon dioxide gas.

21 Add Section 603.5.22 as follows:

22 **603.5.22. Industrial Water Chillers.** Potable water connections to closed-loop industrial
 23 water chillers shall be protected from backflow by a reduced pressure principle backflow
 24 prevention assembly in accordance with Table 603.2.

1 Section 3. Effective Date. This ordinance shall become effective 30 days after
2 enactment. Enactment occurs when the Mayor signs the ordinance, the Mayor returns the
3 ordinance unsigned or does not sign the ordinance within ten days of receiving it, or the Board
4 of Supervisors overrides the Mayor’s veto of the ordinance.

5
6 Section 4. Scope of Ordinance. In enacting this ordinance, the Board of Supervisors
7 intends to amend only those words, phrases, paragraphs, subsections, sections, articles,
8 numbers, punctuation marks, charts, diagrams, or any other constituent parts of the Municipal
9 Code that are explicitly shown in this ordinance as additions, deletions, Board amendment
10 additions, and Board amendment deletions in accordance with the “Note” that appears under
11 the official title of the ordinance.

12
13 Section 5. Directions to Clerk. The Clerk of the Board of Supervisors is hereby
14 directed to forward a copy of this ordinance to the California Building Standards Commission
15 upon final passage.

16
17 APPROVED AS TO FORM:
18 DENNIS J. HERRERA, City Attorney

19 By: _____
20 JUDITH A. BOYAJIAN
21 Deputy City Attorney
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