

# Plumbing Code Sections For Commercial Food Facilities

## SCOPE

The following list of requirements summarizes the plumbing issues that are *commonly* addressed in commercial retail food facilities by health inspectors. The intent is to aid plumbers, contractors, kitchen designers, engineers, architects and health and building code inspectors to better identify plumbing requirements when evaluating retail food establishments. Be advised that the building departments are the primary agencies for enforcing the plumbing codes.

This list does not include all possible applications of the California Plumbing Code (CPC) or the California Retail Food Code (Cal Code) and should not be used as a replacement of the respective codes.

## DEFINITIONS

### 1) Food Establishment, Definition, CPC Sec. 208.0.

Any room, building, place or portion thereof, maintained, used or operated for the purpose of storing, preparing, serving, packaging, transporting, salvaging or otherwise handling food at the retail level.

### 2) Backflow Prevention Devices, Assemblies, and Methods

**Airgap.** Sec. 603.2.1 The minimum airgap to afford backflow protection shall be in accordance with Table 6-3.

**Atmospheric Vacuum Breaker.** Sec. 603.2.2. An atmospheric vacuum breaker consists of a body, a checking member and an atmospheric opening.

**Double Check Valve Backflow Prevention Assembly (DC).** Sec. 603.2.3. A double check valve backflow prevention assembly consists of two independently acting internally loaded check valves, four properly located test cocks and two isolation valves.

**Pressure Vacuum Breaker Backflow Prevention Assembly (PVB).** Sec. 603.2.4. A pressure vacuum breaker backflow prevention assembly consists of a loaded air inlet valve, an internally loaded check valve, two (2) properly located test cocks and two (2) isolation valves. This device shall be installed outdoors only unless provisions for spillage are provided.

Pressure Vacuum Breaker Spill-Proof Type Backflow Prevention Assembly (SVB). Sec. 603.2.5. A pressure type vacuum breaker backflow prevention assembly consisting of one (1) check valve force-loaded closed and an air inlet vent valve force-loaded open to atmosphere, positioned downstream of the check valve, and located between and including two (2) tightly closing shut-off valves and test cock(s).

Reduced Pressure Principle Backflow Prevention Assembly (RP). Sec. 603.2.6. A reduced pressure principle backflow prevention assembly consists of two independently acting internally loaded check valves, a differential pressure relief valve, four properly located test cocks and two isolation valves.

## WATER CONNECTIONS

Unlawful Connections and Cross-Connection Control, refer to CPC Secs.602- 603.

## BACKFLOW PREVENTION DEVICES

- 1) Installation requirements, refer to CPC, Table 6-2.  
Refer to CPC, Sec. 603.3 for requirements regarding listings, testing, access, hot water applications, connections with the sewer and equipment that are manufactured with integral backflow preventers or airgaps.
- 2) Backflow preventers for hot water applications, CPC Sec. 603.3.5  
Backflow preventers for hot water over 110° F. (43.3° C.) shall be a listed type designed to operate at temperatures of 110° F (43.3° C.) or more without rendering any portion of the assembly inoperative.
- 3) Potable Water Outlets with Hose Attachments, CPC Sec. 603.4.7  
Potable water outlets with hose attachments, other than water heater drains, boiler drains, and clothes washer connections, shall be protected by a listed non-removable hose bibb type backflow preventer or by a listed atmospheric vacuum breaker installed at least six (6) inches (152 mm) above the highest point of usage and located on the discharge side of the last valve ...

- 4) Potable Water Supply to (Soda) Carbonators, CPC Sec. 603.4.13  
Potable Water Supply to carbonators shall be protected by a listed reduced pressure principle backflow preventer as approved by the Administrative Authority for the specific use.
- 5) Water Treatment Units, CPC Sec. 603.4.14  
Reverse osmosis drinking water treatment units shall meet the requirements of the appropriate standard(s) referenced in Table 14-1. Waste or discharge from reverse osmosis or other types of water treatment units shall enter the drainage system through an airgap.
- 6) Faucets with hose-Attached Sprays, CPC Sec. 603.4.17  
Faucets with hose attached sprays shall vent to atmosphere under back siphonage conditions.

## WASTE PLUMBING

1. Utensil washing sinks and ware washing machines, CPC Sec. 704.3.  
Pot sinks, scullery sinks, dishwashing sinks, silverware sinks, dishwashing machines, silverware-washing machines, and other similar fixtures shall be connected directly to the drainage system. A floor drain shall be provided adjacent to the fixture, and the fixture shall be connected on the sewer side of the floor drain trap, provided that no other drainage line is connected between the floor drain waste connection and the fixture drain. The fixture and floor drain shall be trapped and vented as required by this Code.
2. Food and Beverage Handling Establishments, CPC Sec. 801.2.  
Establishments engaged in the storage, preparation, selling, serving, processing, or other handling of food and beverage involving the following equipment which requires drainage shall provide indirect waste piping for refrigerators, refrigeration coils, freezers, walk-in coolers iceboxes, ice-making machines, steam tables egg boilers, coffee urns and brewers, hot and cold drink dispensers, and similar equipment.  
  
Sec. 801.2.1 Except for refrigeration coils and ice-making machines, the minimum size of the indirect waste pipe shall not be smaller than the drain on the unit, but shall not be smaller than one (1) inch (25.4 mm), and the maximum developed length shall not exceed fifteen (15) feet (4572

mm). Indirect waste pipe for ice-making machines shall not be less than the drain on the unit, but shall not be less than three-quarters (3/4) inch (19.1 mm).

Sec. 801.2.2 For walk-in coolers, floor drains may be connected to a separate drainage line discharging into an outside receptor. The flood level rim of the receptor shall be a minimum of six (6) inches (152 mm) lower than the lowest floor drain. Such floor drains shall be trapped and individually vented. Cleanouts shall be provided at every ninety (90) degree (1.6 rad) turn and shall be accessibly located. Such waste shall discharge through an airgap or airbreak into a trapped and vented receptor, except that a full-size airgap is required where the indirect waste pipe may be under vacuum.

Sec. 801.2.3 Food preparation sinks, steam kettles, potato peelers ice cream dipper wells, and similar equipment shall be indirectly connected to the drainage system by means of an airgap or airbreak. The piping from the equipment to the receptor shall not be smaller than the drain on the unit, but it shall not be smaller than one (1) inch (25.4 mm).

## VENTING

### 1. Vents Not Required, CPC Sec. 902.2.

Traps serving sinks which are part of the equipment of bars, soda fountains, and counters, need not be vented when the location and construction of such bars, soda fountains, and counters is such as to make it impossible to do so. When such conditions exist, said sinks shall discharge by means of approved indirect waste pipes into floor sink or other approved type receptor.

## FLOOR DRAINS

### 1. Location of Floor Drains, CPC Sec. 412.2. Floor drains shall be installed in the following areas:

Sec. 412.2.1 Toilet rooms containing two (2) or more water closets or a combination of one(1) water closet and one (1) urinal, except in a dwelling unit. The floor shall slope toward the floor drains.

Sec. 412.2.2 Commercial kitchens.

2. Food Storage Areas, CPC Sec. 412.3.  
If drains are provided in storerooms, walk-in freezers, walk-in coolers, refrigerated equipment, or other locations where food is stored, they shall have indirect waste piping. Separate waste pipes shall be run from each food storage area, each with an indirect connection to the building sanitary drainage system. Traps shall be provided if required under Section 801.2.2 of this Code and shall be vented.
3. Floor slope, CPC Sec. 412.4.  
Floors shall be sloped to floor drains where drainage occurs on regular or frequent basis, or as otherwise required by the Administrative Authority.

## GREASE INTERCEPTORS

1. Grease Interceptors for Commercial Kitchens, CPC Sec. 1014.10  
Required grease interceptors, installed outdoors, shall comply with the provisions of Appendix H.
2. Food Waste Disposal and Dishwasher Prohibited, CPC Sec. 1015.0  
Unless specifically required or permitted by the Administrative Authority, no food waste disposal unit or dishwasher shall be connected to or discharge into any grease trap.

## RESTROOMS AND LAVATORIES

1. Food Service Establishments, CPC Sec. 413.6.  
Food service establishments with an occupant load of one hundred (100) or more shall be provided with separate facilities for employees and customers. Customer and employee facilities may be combined for occupant loads less than one hundred (100).
2. Employee Lavatories in Food Establishments, CPC 413.6.1.  
Employee lavatories installed in food establishments shall be equipped with an approved single spout capable of providing tempered (100 degrees F. – 115 degrees F.) (37.8 degrees C. – 46.1 degrees C.) running water. *Exception: this requirement applies only to commissaries serving mobile food preparation units.*

3. Restroom requirements: Minimum Plumbing Facilities, refer to CPC Table 4-1.

## COMMISSARIES

1. Commissaries Serving Mobile Food Preparation Units, CPC Sec. 413.12.

Commissaries serving mobile food preparation units shall have at least one hose bibb. The hose bibb shall be supplied with hot and cold water and be provided with a single spout, a backflow-preventer device and shall be located on the premises of the establishment. *Exception: Steam outlets may be substituted for hose bibbs.*