CHAPTER 8

INDIRECT/SPECIAL WASTE

SECTION 801 GENERAL

- **801.1 Scope.** This chapter shall govern matters concerning indirect waste piping and special wastes. This chapter shall further control matters concerning food-handling establishments, sterilizers, clear-water wastes, swimming pools, methods of providing air breaks or air gaps, and neutralizing devices for corrosive wastes.
- **801.2 Protection.** All devices, appurtenances, appliances and apparatus intended to serve some special function, such as sterilization, distillation, processing, cooling, or storage of ice or foods, and that discharge to the drainage system, shall be provided with protection against backflow, flooding, fouling, contamination and stoppage of the drain.

SECTION 802 INDIRECT WASTES

- **802.1 Where required.** Food-handling equipment and clear-water waste shall discharge through an indirect waste pipe as specified in Sections 802.1.1 through 802.1.8. All health-care related fixtures, devices and equipment shall discharge to the drainage system through an indirect waste pipe by means of an *air gap* in accordance with this chapter and Section 713.3. Fixtures not required by this section to be indirectly connected shall be directly connected to the plumbing system in accordance with Chapter 7.
 - **802.1.1 Food handling.** Equipment and fixtures utilized for the storage, preparation and handling of food shall discharge through an indirect waste pipe by means of an *air gap*.
 - **802.1.2** Floor drains in food storage areas. Floor drains located within walk-in refrigerators or freezers in food service and food establishments shall be indirectly connected to the sanitary drainage system by means of an *air gap*. Where a floor drain is located within an area subject to freezing, the waste line serving the floor drain shall not be trapped and shall indirectly discharge into a waste receptor located outside of the area subject to freezing.
 - **Exception:** Where protected against backflow by a backwater valve, such floor drains shall be indirectly connected to the sanitary drainage system by means of an *air break* or an *air gap*.
 - **802.1.3 Potable clear-water waste.** Where devices and equipment, such as sterilizers and relief valves, discharge potable water to the building drainage system, the discharge shall be through an indirect waste pipe by means of an *air gap*.
 - **802.1.4 Swimming pools.** Where wastewater from swimming pools, backwash from filters and water from pool deck drains discharge to the building drainage system, the dis-

- charge shall be through an indirect waste pipe by means of an *air gap*.
- **802.1.5** Nonpotable clear-water waste. Where devices and equipment such as process tanks, filters, drips and boilers discharge nonpotable water to the building drainage system, the discharge shall be through an indirect waste pipe by means of an *air break* or an *air gap*.
- **802.1.6 Domestic dishwashing machines.** Domestic dishwashing machines shall discharge indirectly through an *air gap* or *air break* into a standpipe or waste receptor in accordance with Section 802.2, or discharge into a wye-branch fitting on the tailpiece of the kitchen sink or the dishwasher connection of a food waste grinder. The waste line of a domestic dishwashing machine discharging into a kitchen sink tailpiece or food waste grinder shall connect to a deck-mounted *air gap* or the waste line shall rise and be securely fastened to the underside of the sink rim or counter.
- **802.1.7 Commercial dishwashing machines.** The discharge from a commercial dishwashing machine shall be through an *air gap* or *air break* into a standpipe or waste receptor in accordance with Section 802.2.
- **802.1.8 Food utensils, dishes, pots and pans sinks.** Sinks used for the washing, rinsing or sanitizing of utensils, dishes, pots, pans or serviceware used in the preparation, serving or eating of food shall discharge indirectly through an *air gap* or an *air break* or directly connect to the drainage system.
- **802.2 Installation.** All indirect waste piping shall discharge through an *air gap* or *air break* into a waste receptor or standpipe. Waste receptors and standpipes shall be trapped and vented and shall connect to the building drainage system. All indirect waste piping that exceeds 2 feet (610 mm) in *developed length* measured horizontally, or 4 feet (1219 mm) in total *developed length*, shall be trapped.
 - **802.2.1 Air gap.** The *air gap* between the indirect waste pipe and the *flood level rim* of the waste receptor shall be a minimum of twice the *effective opening* of the indirect waste pipe.
 - **802.2.2 Air break.** An *air break* shall be provided between the indirect waste pipe and the trap seal of the waste receptor or standpipe.
- **802.3 Waste receptors.** Every waste receptor shall be of an *approved* type. A removable strainer or basket shall cover the waste outlet of waste receptors. Waste receptors shall be installed in ventilated spaces. Waste receptors shall not be installed in bathrooms or toilet rooms or in any inaccessible or unventilated space such as a closet or storeroom. Ready *access* shall be provided to waste receptors.
 - **802.3.1 Size of receptors.** A waste receptor shall be sized for the maximum discharge of all indirect waste pipes

served by the receptor. Receptors shall be installed to prevent splashing or flooding.

802.3.2 Open hub waste receptors. Waste receptors shall be permitted in the form of a hub or pipe extending not less than 1 inch (25.4 mm) above a water-impervious floor and are not required to have a strainer.

802.4 Standpipes. Standpipes shall be individually trapped. Standpipes shall extend a minimum of 18 inches (457 mm) and a maximum of 42 inches (1066 mm) above the trap weir. *Access* shall be provided to all standpipes and drains for rodding.

SECTION 803 SPECIAL WASTES

803.1 Wastewater temperature. Steam pipes shall not connect to any part of a drainage or plumbing system and water above 140°F (60°C) shall not be discharged into any part of a drainage system. Such pipes shall discharge into an indirect waste receptor connected to the drainage system.

803.2 Neutralizing device required for corrosive wastes. Corrosive liquids, spent acids or other harmful chemicals that destroy or injure a drain, *sewer*, soil or waste pipe, or create noxious or toxic fumes or interfere with sewage treatment processes shall not be discharged into the plumbing system without being thoroughly diluted, neutralized or treated by passing through an *approved* dilution or neutralizing device. Such devices shall be automatically provided with a sufficient supply of diluting water or neutralizing medium so as to make the contents noninjurious before discharge into the drainage system. The nature of the corrosive or harmful waste and the method of its treatment or dilution shall be *approved* prior to installation.

803.3 System design. A chemical drainage and vent system shall be designed and installed in accordance with this code. Chemical drainage and vent systems shall be completely separated from the sanitary systems. Chemical waste shall not discharge to a sanitary drainage system until such waste has been treated in accordance with Section 803.2.

SECTION 804 MATERIALS, JOINTS AND CONNECTIONS

804.1 General. The materials and methods utilized for the construction and installation of indirect waste pipes and systems shall comply with the applicable provisions of Chapter 7.

8-2 2009 VIRGINIA PLUMBING CODE