

## CHAPTER 10

# TRAPS, INTERCEPTORS AND SEPARATORS

### SECTION 1001 GENERAL

**1001.1 Scope.** This chapter shall govern the material and installation of traps, interceptors and separators.

### SECTION 1002 TRAP REQUIREMENTS

**1002.1 Fixture traps.** Each plumbing fixture shall be separately trapped by a water-seal trap, except as otherwise permitted by this code. The trap shall be placed as close as possible to the fixture outlet. The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches (610 mm). The distance of a clothes washer standpipe above a trap shall conform to Section 802.4. A fixture shall not be double trapped.

#### Exceptions:

1. This section shall not apply to fixtures with integral traps.
2. A combination plumbing fixture or up to three similar fixtures is permitted to be installed on one trap provided that one compartment is not more than 6 inches (152 mm) deeper than the other compartment and the waste outlets are not more than 30 inches (762 mm) apart.
3. A grease trap intended to serve as a fixture trap in accordance with the manufacturer's installation instructions shall be permitted to serve as the trap for a single fixture or a combination sink of not more than three compartments where the vertical distance from the fixture outlet to the inlet of the interceptor does not exceed 30 inches (762 mm), and the developed length of the waste pipe from the most upstream fixture outlet to the inlet of the interceptor does not exceed 60 inches (1524 mm).
4. The connection of a laundry tray complying with Section 802.4.

**1002.2 Design of traps.** Fixture traps shall be self-scouring. Fixture traps shall not have interior partitions, except where such traps are integral with the fixture or where such traps are constructed of an approved material that is resistant to corrosion and degradation. Slip joints shall be made with an approved elastomeric gasket and shall be installed only on the trap inlet, trap outlet and within the trap seal.

**1002.3 Prohibited traps.** The following types of traps are prohibited:

1. Traps that depend on moving parts to maintain the seal.
2. Bell traps.
3. Crown-vented traps.
4. Traps not integral with a fixture and that depend on interior partitions for the seal, except those traps constructed

of an approved material that is resistant to corrosion and degradation.

5. "S" traps.
6. Drum traps.

**Exception:** Drum traps used as solids interceptors and drum traps serving chemical waste systems shall not be prohibited.

**1002.4 Trap seals.** Each fixture trap shall have a liquid seal of not less than 2 inches (51 mm) and not more than 4 inches (102 mm), or deeper for special designs relating to accessible fixtures. Where a trap seal is subject to loss by evaporation, a trap seal primer valve shall be installed. A trap seal primer valve shall conform to ASSE 1018 or ASSE 1044.

**1002.5 Size of fixture traps.** Fixture trap size shall be sufficient to drain the fixture rapidly and not less than the size indicated in Table 709.1. A trap shall not be larger than the drainage pipe into which the trap discharges.

**1002.6 Building traps.** Deleted.

**1002.7 Trap setting and protection.** Traps shall be set level with respect to the trap seal and, where necessary, shall be protected from freezing.

**1002.8 Recess for trap connection.** Deleted.

**1002.9 Acid-resisting traps.** Deleted.

**1002.10 Plumbing in mental health centers.** Deleted.

### SECTION 1003 INTERCEPTORS AND SEPARATORS

**1003.1 Where required.** Interceptors and separators shall be provided to prevent the discharge of oil, grease, sand and other substances harmful or hazardous to the building drainage system, the public sewer, or sewage treatment plant or processes.

**1003.2 Approval.** The size, type and location of each interceptor and of each separator shall be designed and installed in accordance with the manufacturer's instructions, the requirements of the local utility department or health department and the requirements of this section based on the anticipated conditions of use. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator.

**1003.3 Grease traps and grease interceptors.** Grease traps and grease interceptors shall comply with the requirements of Sections 1003.3.1 through 1003.3.4.2 or with the requirements of the local utility department or health department.

#### 1003.3.1 Grease traps and grease interceptors required.

A grease trap or grease interceptor shall be required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias, or restaurants and clubs.

**1003.3.2 Food waste grinders.** Where food waste grinders connect to grease traps, a solids interceptor shall separate the discharge before connecting to the grease trap. Solids interceptors and grease interceptors shall be sized and rated for the discharge of the food waste grinder.

**1003.3.3 Grease trap and grease interceptor not required.** A grease trap or a grease interceptor shall not be required for individual dwelling units or any private living quarters.

**1003.3.4 Grease traps and grease interceptors.** Grease traps and grease interceptors shall conform to PDI G101, ASME A112.14.3 or ASME A112.14.4 and shall be installed in accordance with the manufacturer’s instructions.

**1003.3.4.1 Grease trap capacity.** Grease traps shall have the grease retention capacity indicated in Table 1003.3.4.1 for the flow-through rates indicated.

**TABLE 1003.3.4.1  
CAPACITY OF GREASE TRAPS**

| TOTAL FLOW-THROUGH RATING (gpm) | GREASE RETENTION CAPACITY (pounds) |
|---------------------------------|------------------------------------|
| 4                               | 8                                  |
| 6                               | 12                                 |
| 7                               | 14                                 |
| 9                               | 18                                 |
| 10                              | 20                                 |
| 12                              | 24                                 |
| 14                              | 28                                 |
| 15                              | 30                                 |
| 18                              | 36                                 |
| 20                              | 40                                 |
| 25                              | 50                                 |
| 35                              | 70                                 |
| 50                              | 100                                |

For SI: 1 gallon per minute = 3.785 L/m, 1 pound = 0.454 kg.

**1003.3.4.2 Rate of flow controls.** Grease traps shall be equipped with devices to control the rate of water flow so that the water flow does not exceed the rated flow. The flow-control device shall be vented and terminate not less than 6 inches (152 mm) above the flood rim level or be installed in accordance with the manufacturer’s instructions.

**1003.4 Oil separators required.** At repair garages, carwashing facilities with engine or undercarriage cleaning capability and at factories where oily and flammable liquid wastes are produced, separators shall be installed into which all oil-bearing, grease-bearing or flammable wastes shall be discharged before emptying in the building drainage system or other point of disposal.

**1003.4.1 Separation of liquids.** A mixture of treated or untreated light and heavy liquids with various specific gravities shall be separated in an approved receptacle.

**1003.4.2 Oil separator design.** Oil separators shall be designed in accordance with Sections 1003.4.2.1 and 1003.4.2.2.

**1003.4.2.1 General design requirements.** Oil separators shall have a depth of not less than 2 feet (610 mm) below the invert of the discharge drain. The outlet opening of the separator shall have not less than an 18-inch (457 mm) water seal.

**1003.4.2.2 Garages and service stations.** Where automobiles are serviced, greased, repaired or washed or where gasoline is dispensed, oil separators shall have a minimum capacity of 6 cubic feet (0.168 m<sup>3</sup>) for the first 100 square feet (9.3 m<sup>2</sup>) of area to be drained, plus 1 cubic foot (0.28 m<sup>3</sup>) for each additional 100 square feet (9.3 m<sup>2</sup>) of area to be drained into the separator. Parking garages in which servicing, repairing or washing is not conducted, and in which gasoline is not dispensed, shall not require a separator. Areas of commercial garages utilized only for storage of automobiles are not required to be drained through a separator.

**1003.5 Sand interceptors in commercial establishments.** Sand and similar interceptors for heavy solids shall be designed and located so as to be provided with ready access for cleaning, and shall have a water seal of not less than 6 inches (152 mm).

**1003.6 Laundries.** Commercial laundries shall be equipped with an interceptor, a wire basket or similar device, removable for cleaning, that prevents passage into the drainage system of solids 0.5 inch (12.7 mm) or larger in size, string, rags, buttons or other materials detrimental to the public sewage system.

**1003.7 Bottling establishments.** Bottling plants shall discharge process wastes into an interceptor that will provide for the separation of broken glass or other solids before discharging waste into the drainage system.

**1003.8 Slaughterhouses.** Slaughtering room and dressing room drains shall be equipped with approved separators. The separator shall prevent the discharge into the drainage system of feathers, entrails and other materials that cause clogging.

**1003.9 Venting of interceptors and separators.** Interceptors and separators shall be designed so as not to become air bound where tight covers are utilized. Each interceptor or separator shall be vented where subject to a loss of trap seal.

**1003.10 Access and maintenance of interceptors and separators.** Access shall be provided to each interceptor and separator for service and maintenance. Interceptors and separators shall be maintained by periodic removal of accumulated grease, scum, oil, or other floating substances and solids deposited in the interceptor or separator.

**SECTION 1004  
MATERIALS, JOINTS AND CONNECTIONS**

**1004.1 General.** The materials and methods utilized for the construction and installation of traps, interceptors and separators shall comply with this chapter and the applicable provisions of Chapters 4 and 7. The fittings shall not have ledges, shoulders or reductions capable of retarding or obstructing flow of the piping.