CHAPTER 4

PLUMBING FIXTURES AND FIXTURE FITTINGS

401.0 Materials – General Requirements.

401.1 Quality of Fixtures. Plumbing fixtures shall be constructed of dense, durable, non-absorbent materials and shall have smooth, impervious surfaces, free from unnecessary concealed fouling surfaces. Except as permitted elsewhere in this code, fixtures shall conform in quality and design to nationally recognized applicable standards included in Table 14-1 or equivalent International Standard(s) approved by the Authority Having Jurisdiction.

401.2 Plumbing fixture fittings covered under the scope of NSF 61 shall comply with the requirements of DIN/NSF 61 or equivalent International Standard(s) approved by the Authority Having Jurisdiction.

402.0 Water-Conserving Fixtures and Fittings.

402.1 Maximum flow rates and flush volumes shall be in accordance with applicable standards referenced in Table 14-1 or equivalent International Standard(s) approved by the Authority Having Jurisdiction, and Table 4-1.

402.2 Water Closets. Water closets, either flush tank, flushometer tank, or flushometer valve operated, shall have an average consumption of not more than 6L (1.6 gal) of water per flush. Dual flush water closets shall have an average water consumption in accordance with Table 4-1.

TABLE 4-1
Maximum Flow Rates and Flush Volumes

Plumbing Fixtures/ Fixture Fittings	Maximum Flow Rate
Water Closets (Dual Flush)	4/6L/flush
Water Closet (Single Flush)	5L/flush
Urinals	2L/flush
Lavatory, Faucet (public)	2L/min
Lavatory, Faucet (private)	6L/min
Sink, Faucet	8L/min
Bidet, Hand-held Spray	8L/min
Shower Head or Hand-held Spray	10L/min

SI: 1L = 0.26 gallon, 1L/min. = 0.26 gpm

402.3 Urinals. Urinals shall have an average water consumption of not more than 2L (0.5 gal.) of water per flush.

402.3.1 Nonwater Urinals. Where nonwater urinals are installed, they shall be listed and comply with the applicable standards referenced in Table 14-1 or equivalent International Standard(s) approved by the Authority Having Jurisdiction. Nonwater urinals shall have a barrier liquid sealant to maintain a trap seal. Nonwater urinals shall permit the uninhibited flow of waste through the urinal to the sanitary drainage system. Nonwater urinals shall be cleaned and maintained in accordance with the manufacturer's instructions after installation. Where nonwater urinals are installed, they shall have a water distribution line rough-in to the urinal location to allow for the installation of an approved backflow prevention device in the event of a retrofit.

402.4 Faucets. Maximum flow rates for faucets shall be in accordance with Table 4-1. Flow rates shall be restricted by the use of air entrained faucets, aerators, or flow restricting devices.

402.5 Emergency Safety Showers. Emergency safety showers shall not be limited in their water supply flow rates.

402.6 Installation. Water-conserving fixtures shall be installed in strict accordance with the manufacturer's instructions to maintain their rated performance.

403.0 Overflows.

When any fixture is provided with an overflow, the waste shall be so arranged that the standing water in the fixture cannot rise in the overflow when the stopper is closed or remains in the overflow when the fixture is empty. The overflow pipe from a fixture shall be connected on the house or inlet side of the fixture trap, except that overflow on flush tanks shall be permitted to discharge into the water closets or urinals served by them, but it shall be unacceptable to connect such overflows with any other part of the drainage system.

404.0 Strainers and Connections.

404.1 Strainers/Gratings. Plumbing fixtures, other than water closets and urinals, shall be equipped with approved strainers having an approved waterway area. Strainers serving shower drains shall have a waterway equivalent to the area of the tailpiece.