

Chapter H 63

RESTRICTED AND TENTATIVE APPROVALS

H 63.01 Bituminous fiber pipe
H 63.02 Cement asbestos pipe

H 63.03 Urinals for women
H 63.04 Bending of pipe

H 63.01 Bituminous fiber pipe. (1) **USE LIMITATIONS.** Bitumized fiber pipe conforming to Commercial Standard 116, latest revision, National Bureau of Standards, may be installed in lieu of materials specified in ch. H 62 for the following uses:

- (a) House sewers serving residential buildings containing not more than four dwelling units.
- (b) Drainage lines for the disposal of the effluent from septic tanks.
- (c) Other locations on an experimental basis when written approval for each specific installation is obtained from the board.

(2) **INSTALLATION PROCEDURE.** All connections between fiber pipe and cast iron, vitrified clay or concrete pipe shall be made by means of proper fittings or adaptors. The provisions of H 62.16 (1), (2), and (3) relative to joints between cast iron, vitrified clay and concrete pipe shall apply to and include fiber pipe. Pipe size, grade and other installation requirements shall be in accordance with ch. H 62.

H 63.02 Cement asbestos pipe. (1) **USE LIMITATIONS.** Cement asbestos pipe conforming to standards set forth in subsection (2) may be used in lieu of materials specified in ch. H 62 for the following purposes:

- (a) House sewers serving residential buildings containing not more than four dwelling units.
- (b) Drainage lines for the disposal of the effluent from septic tanks.
- (c) Other locations on an experimental basis when written approval for each specific installation is obtained from the board.

(2) **MATERIAL STANDARDS.** Cement asbestos pipe, including couplings, shall be composed of an intimate mixture of cement and asbestos fiber free from organic matter and having a maximum alkalinity of 60 milligrams of potassium hydroxide per gram of sample material as tested in accordance with the Western Electric method. Other essential characteristics shall be as follows:

(a) *Wall thickness.* The minimum wall thickness shall be five-sixteenths of an inch for 4-inch pipe and three-eighths of an inch for 6-inch pipe.

(b) *Couplings.* Pipe couplings shall have a minimum length of four and one-half inches and a minimum thickness of one-half inch.

(c) *Flexural strength.* Each 10-foot length of pipe shall have sufficient flexural strength to withstand without failure the following

loads when applied at the center of a 9-foot span, the rate used in applying the total load being approximately 2,000 pounds per minute.

| Nominal size, inches | Total applied load—pounds |
|-------------------------|------------------------------|
| 4 ----- | 550 |
| 6 ----- | 1290 |

(d) *Crushing strength.* Cement asbestos pipe shall have the following crushing strengths when an unmachined section of pipe 6 inches long is tested by the 3-edge bearing method of A.S.T.M.

| Nominal size, inches | Crushing strength per lineal ft.—pounds |
|-------------------------|--|
| 4 ----- | 1740 |
| 6 ----- | 1420 |

(3) **JOINTS.** The provisions of H 62.16 (1), (2), and (3) relative to joints shall apply to and include cement asbestos pipe. Connection between cement asbestos and cast iron, vitrified clay, concrete or other approved pipe materials shall be made by means of proper fittings or adaptors. Joints between sections of cement asbestos pipe shall be made using either a tapered or a ring type cement asbestos coupling as follows:

(a) *Tapered type.* The tapered type coupling shall have a factory applied unfilled asphalt lining. The asphalt shall have a ring and ball melting point between 210 degrees and 235 degrees Fahrenheit. The slope of the taper in the coupling and the end outside surfaces of the pipe shall be one and three-fourths degrees. A cut back asphalt primer prepared by compounding a volatile petroleum distillate with asphalt shall be applied to the end of the pipe at the factory. The specific viscosity of the primer shall be between 100 and 175 seconds when measured by the Saybolt Universal Viscosimeter. Primer complying with the above specifications shall be available at the point of sewer installation for use in bonding the pipe couplings.

(b) *Ring type.* The ring type coupling shall have a rubber center ring plus two rubber sealing rings. The inner side of the coupling ends shall be bevelled and the interior machined to provide a smooth surface. A groove shall be machined to receive the center ring of moulded and vulcanized natural rubber compound which is positioned in the coupling. The sealing rings placed on the pipe are to be made of a good grade of natural rubber. The end outside surfaces of the pipe shall be machined at the factory to proper dimensions to permit the pipe to enter the coupling in a manner to cause the sealing rings to roll back to provide a proper seal.

(4) **OTHER DETAILS.** The pipe size, grade, and other installation requirements shall be in accordance with provisions of ch. H 62.

H 63.03 Urinals for women. Urinals for women may be used on an experimental basis under the following conditions:

(1) The urinals shall be installed as an auxiliary or supplementary fixture. The fixture is not to be considered as a substitute for water closets and in all cases the minimum number of water closets required by the code shall be provided.

- (2) The urinal shall be enclosed with a standard size water closet compartment and door to insure privacy in use.
- (3) A floor drain shall be provided in the toilet room.
- (4) The fixture unit value and installation details shall conform to those established for water closets in H 62.00.
- (5) The fixture shall be equipped with an effective automatic or foot operated flushing device.
- (6) An instruction card explaining how to use the fixture shall be posted in each fixture compartment.

H 63.04 Bending of pipe. The bending of pipe shall be permitted on a trial basis subject to the following restrictions:

- (1) Bends may be used for installation of water supply lines only.
- (2) Only galvanized steel or hard temper copper tube up to 2-inch diameter may be installed with bends.
- (3) No bend shall exceed 90 degrees.
- (4) No part of a bend shall be on a concealed portion of a supply line.
- (5) Bends must be made in one operation with machines that are designed to minimize kinking or distorting of the pipe. Pipe with bends that show kinks, wrinkles or other malformations shall be discarded.
- (6) The minimum radii of a bend on a pipe of given diameter shall be as follows:

| <i>Pipe diameter in inches</i> | <i>Radii in inches</i> |
|------------------------------------|----------------------------|
| $\frac{3}{8}$ ----- | 1 $\frac{3}{8}$ |
| $\frac{1}{2}$ ----- | 1 $\frac{3}{4}$ |
| $\frac{3}{4}$ ----- | 2 $\frac{3}{8}$ |
| 1 ----- | 3 $\frac{3}{8}$ |
| 1 $\frac{1}{4}$ ----- | 4 $\frac{3}{8}$ |
| 1 $\frac{1}{2}$ ----- | 5 $\frac{1}{2}$ |
| 2 ----- | 7 $\frac{3}{4}$ |

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