

Chapter H 63

RESTRICTED AND TENTATIVE APPROVALS

H 63.01	Bituminous fiber pipe	H 63.04	Bending of pipe
H 63.02	Cement asbestos pipe	H 63.05	Plastic pipe
H 63.03	Urinals for women		

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 section H 62.03.
- (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</i> <i>in inches</i>	<i>Radii</i> <i>in inches</i>
$\frac{3}{8}$ -----	1 $\frac{3}{8}$
$\frac{1}{2}$ -----	1 $\frac{1}{4}$
$\frac{3}{4}$ -----	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 $\frac{3}{4}$

H 63.05 Plastic pipe. (1) **USE LIMITATIONS.** Plastic pipe conforming to specifications set forth in subsection (2) may be installed in lieu of materials specified in chapter H 62 for the following uses:

- (a) Underground pressure piping in potable cold water system serving private residences and farm buildings except those located within the incorporated limits of any city or village having either a public water or sewer system and within areas platted under Ch. 236, stats., adjacent to such city or village and within the limits of any metropolitan sewerage district.
- (b) For other uses as may be approved by the board when such installations will provide additional experience in the use of plastic pipe.

(2) **SPECIFICATIONS.** Plastic pipe and fittings shall conform to the following:

- (a) All pieces shall be marked with the seal of approval of the National Sanitation Foundation, the pressure rating and the manufacturer's name or trade-mark.

(b) The minimum allowable working pressure at a temperature of 73.4° Fahrenheit shall be based on the maximum pressure in the water system and be as follows:

Maximum Water System Pressure Pounds Per Square Inch	Allowable Working Pressure Pounds Per Square Inch
Less than 50 -----	75
50 to 75 -----	100
75 to 100 -----	125

(3) **INSTALLATION.** The installation of plastic pipe shall conform to the following requirements:

(a) For the use permitted under subsection (1) (a) the piping shall terminate outside the walls of any building served and shall not be installed in any tunnel or pipe chase that is heated or contains hot water or steam piping.

(b) Joints shall be assembled in such manner as to assure permanence. Any cement or solvent used shall be free of ingredients that are toxic or will produce odors in the water. Any metal clamps used shall be corrosion resistant and homogeneous throughout.

(c) The pipe trench shall have a smooth compacted bottom. Where rock or stone is encountered, the trench shall be backfilled with sand or stone-free soil for a depth of 2 to 3 inches.

(d) With thermo-plastic pipe an extra one inch of length shall be provided for every 8 feet of measured length of installation. Before backfilling, water at well temperature shall be discharged through the pipe until it reaches the approximate temperature of the water.

(e) The first 6 inches of backfill material shall be free of rocks or clods and shall be carefully placed by hand.

(f) Pipe size and other installation requirements shall be in accord with provisions of chapter H 62.

(4) **REPORTS.** Any failures in plastic pipe installations shall be reported to the board by the owner or person making the repairs to the system. If the failure occurs in a section of pipe or in a fitting, the part failing should be submitted to the board for examination. External causes contributing to a failure should be thoroughly explained.

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