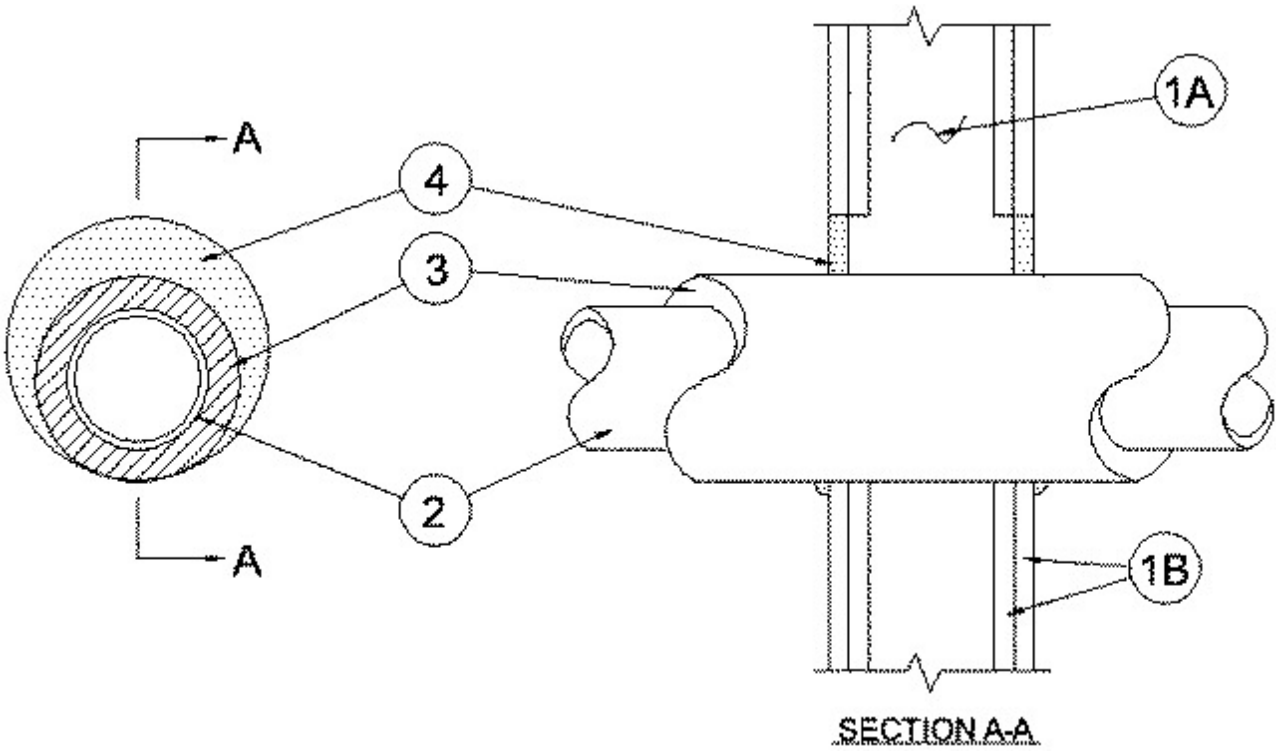
System No. W-L-5149

December 20, 2001

F Ratings — 1 and 2 Hr (See Item 1)

T Ratings — 0 and 3/4 Hr (See Item 1)



SECTION A-A

1. **Wall Assembly —** The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel channel studs to be min 3-1/2 in. wide and spaced max 24 in. OC.

B. **Gypsum Board* —** Nom 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max diam of opening is 6-1/2 in.

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly. The T Rating for a 1 hr wall is 0 hr, T Rating for a 2 hr wall is ¾ hr.

2. **Through Penetrant —** One metallic pipe to be installed either concentrically or eccentrically within the firestop system. Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes may be used:

A. **Steel Pipe —** Nom 4 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe —** Nom 4 in. diam (or smaller) cast or ductile iron pipe.

C. **Copper Tubing —** Nom 4 in. diam (or smaller) Type L (or heavier) copper tube

D. **Copper Pipe —** Nom 4 in. diam (or smaller) Regular (or heavier) copper pipe.

3. **Tube Insulation - Plastics+ —** Nom 3/4 in. thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The annular space between the pipe or tube insulation and the periphery of the opening

shall be min 0 in. (point contact) to a max 7/8 in.

See **Plastics+** (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

4. **Fill, Void or Cavity Materials* - Caulk —** Min 5/8 in. thickness of caulk applied within annular space flush with each surface of wall. A min 1/2 in. diam bead of caulk shall be applied to the pipe insulation/gypsum board interface at the point contact location on both sides of wall.

RECTORSEAL — Biostop 500+

*Bearing the UL Classification Mark