

## System No. F-A-2104

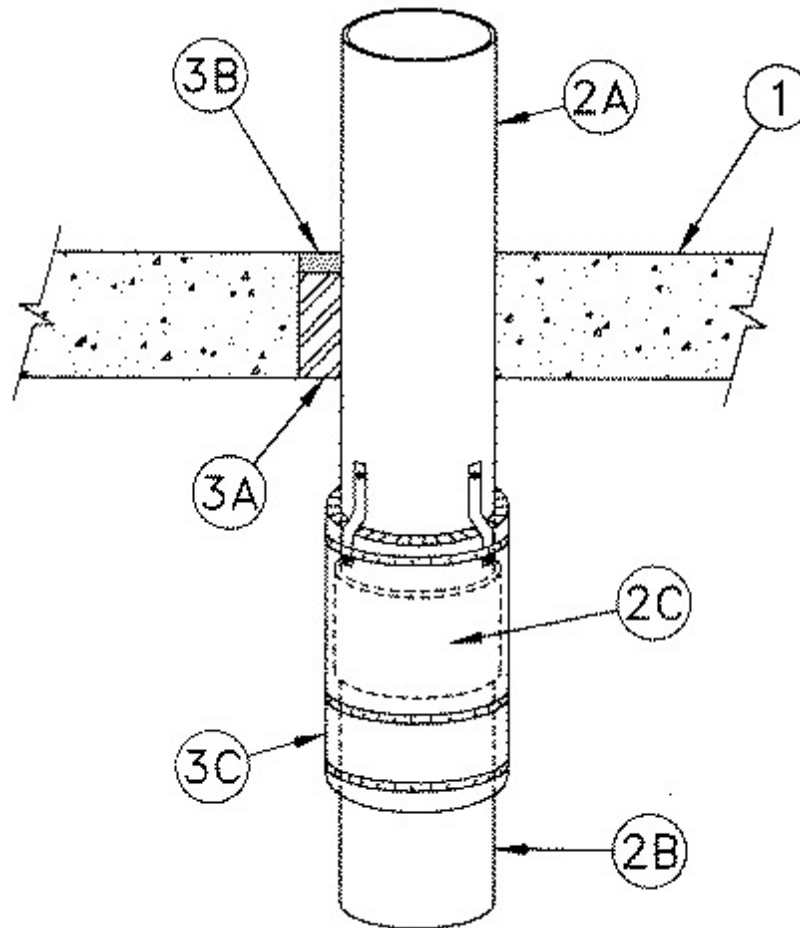
March 10, 2011

F Rating — 2 Hr

T Rating — 0 Hr

L Rating at Ambient — Less than 1 CFM/sq ft

L Rating at 400° F — Less than 1 CFM/sq ft



1. **Floor Assembly** — Min 2-1/2 in. (64 mm) thick reinforced light weight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete. Max diam of opening is 6 in. (152 mm).

2A. **Metallic Pipe** — Nom 4 in. (102 mm) diam (or smaller), Schedule 10 (or heavier) steel pipe or cast/ductile iron pipe installed concentrically or eccentrically within the firestop system. The annular space between the pipe and the periphery of the opening shall be min 0 in. (point of contact) to max 1-5/8 in. (41 mm). Pipe to terminate a min 5 in. (127 mm) below bottom surface of floor assembly. Pipe to be rigidly supported on both sides of floor assembly.

2B. **Non-Metallic Pipe** — Nom 4 in. (102 mm) diam (or smaller), Schedule 40, cellular or solid core polyvinyl chloride (PVC) pipe, installed on bottom end of metallic pipe (Item 2A), for use in vented (drain, waste, or vent) piping systems. Pipe to be rigidly supported.

2C. **Rubber Coupling** — Nom 4 in. (102 mm) diam (or smaller) rubber coupling joining metallic pipe (Item 2A) and non-metallic pipe (Item 2B). Coupling to overlap each pipe by a min 2 in. (102 mm) and to be properly secured to pipes.

3. **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material** — Min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material\* - Sealant** — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor.

**RECTORSEAL** — FlameSafe® FS900+, MC 150+, BF-150+

C. **Firestop Device\*** — Galv steel sleeve lined with an intumescent material, sized to fit the specific diameter of the pipes and coupling. Device to be wrapped around the pipes/coupling connection with a min 1/2 in. (13 mm) overlap to the metallic pipe (Item 2A) and min 3-1/2 in. (89 mm) overlap to the non-metallic pipe (Item 2B). The devices shall be secured to the metallic pipe, non-metallic pipe and coupling with three stainless steel hose clamps of min 1/2 in. (13 mm) width and 0.028 in. (0.71 mm) thickness. The devices shall be further secured to the metallic pipe with three 24 gauge steel sheet metal tabs measuring 4 in. (102 mm) long and 3/4 in. (19 mm) wide. The tabs shall be tack-welded to the metallic pipe immediately above the device. The tabs shall be fixed to the device with 1/2 in. (13 mm) self-tapping screws.

**RECTORSEAL** — FlameSafe Intumescent Sleeve, Metacaulk Intumescent Sleeve or Biostop Intumescent Sleeve

\*Bearing the UL Classification Mark