System No. F-A-1057
August 23, 2004
F Rating - 2 Hr
T Rating - 2 Hr
L Rating at Ambient - 2 CFM/sq ft
L Rating at 400°F - Less than 1 CFM/sq ft
W Rating - Class 1 (See Item 3)

1. Mass Assembly - Min 4-1/2 in. (114 mm) thick mineral felt lightweight or normal weight (180-350 psf
or 1080-2100 kg/m²) terminated. Mass class of opening 13-3/4 in. (350 mm).

2. Through Penetration - One metal pipe or tubing installed concentrically or eccentrically within the
opening. Assume space between penetrant and periphery of opening shall be min of 6 in. (15 cm) from contact
to wall 2 in. (5 cm) to max 5 in. (122 mm). Penetrants to be rigidly supported at both sides of the assembly.
The following types and sizes of penetrants may be used:

A. Steel Pipe - Min 18 in. (457 mm) diam (or smaller) Schedule 10 or heavier stainless steel pipe.
B. Steel Pipe - Min 10 in. (254 mm) diam (or smaller) cast or ductile iron pipe.
C. Copper Tubing - Min 4 in. (102 mm) diam (or smaller) Type L or heavier copper tubing.
D. Copper Pipe - Min 4 in. (102 mm) diam (or heavier) Regular (or heavy) copper pipe.

3. Firestop System - The details of the Firestop system shall be as follows:

A. Filler Material - Min 3 in. (76 mm) thickness of non-combustible material packed tightly against penetrant with a permanent seal. Filler material to be resilient to top surface of floor to accommodate any required thickness of filler material.
B. FB, SR of C65 Material - Crushed, ballasted or droppable - Min 3 in. (76 mm) thickness of material or
pasty material within the sphere, flush with top surface of floor.
C. FB, RP or C65 Material - Crushed, ballasted or droppable - Min 3 in. (76 mm) thickness of material or
pasty material within the sphere, flush with top surface of floor.
D. SS, EP, or C65 Material - Crushed, ballasted or droppable - Min 3 in. (76 mm) thickness of material or
pasty material within the sphere, flush with top surface of floor.
E. PB or FB Material - Crushed, ballasted or droppable - Min 3 in. (76 mm) thickness of material or
pasty material within the sphere, flush with top surface of floor.
F. PB, EP, or C65 Material - Crushed, ballasted or droppable - Min 3 in. (76 mm) thickness of material or
pasty material within the sphere, flush with top surface of floor.
G. PB, EP, or C65 Material - Crushed, ballasted or droppable - Min 3 in. (76 mm) thickness of material or
pasty material within the sphere, flush with top surface of floor.

*Attaching the UL Classification Sheet