February 5, 2010

Specified Technologies Inc.
Mr. James P. Stahl, Jr.
200 Evans Way
Somerville, NJ 08876

Subject: Air Leakage of Specified Technologies' EZ-Path® Fire Rated Pathways

Dear M. Stahl:

This is in response to your request that we provide comments on the provisions for sealing penetrations through smoke barriers contained in the 2009 Edition of NFPA 101 "Life Safety Code®". The code language extracted is shown below:

> **8.5.6.2** Penetrations for cables, cable trays, conduits, pipes, tubes, vents, wires, and similar items to accommodate electrical, mechanical, plumbing, and communications systems that pass through a wall, floor, or floor/ceiling assembly constructed as a smoke barrier, or through the ceiling membrane of the roof/ceiling of a smoke barrier assembly, shall be protected by a system or material capable of restricting the transfer of smoke.

The code requirement clearly states that penetrations through smoke barrier assemblies shall be protected by either a system or material capable of restricting the transfer of smoke. NFPA 101 provides definitions of key terms in Chapter 3. No definition is provided for the word "restrict" and therefore the dictionary should be referenced to provide a working definition for "restrict". The word "limit" is synonymous with "restrict" so the code in essence requires a system or material to be used to limit smoke transfer. Accordingly, it is our judgment that tests conducted in accordance with air leakage test procedure described in ANSI/UL 1479 "Fire Tests of Through-Penetration Firestops" provide evidence of the suitability of a particular system or material to restrict or limit smoke transfer through smoke barriers. In fact, it was similar wording appearing in the 1991 Edition of NFPA 101 which prompted UL to develop the air leakage test procedure back in 1993.

Specified Technologies' EZ-Path® Fire Rated Pathways have published L Ratings (air leakage ratings) at both ambient and elevated temperatures confirming their ability to restrict or limit smoke transfer. Although values are obtained at ambient and 400° F, testing has shown ambient testing to be more critical and the resulting values are always demonstrably higher at ambient than at elevated temperatures. The EZ-Path® Series 33 Device, for example, has achieved values of Less Than 1 CFM/Device empty and 1.4 CFM/Device with 100% loading of 4 pair

data cable. In comparison, the air leakage of a traditional 4 in. diameter steel sleeve with one hundred twelve 4 pair data cables sealed with 1 in. of firestop putty around the perimeter of the cable bundle is 11.9 CFM/Opening. The EZ-Path® product actually outperforms a very typical method of sealing cables utilized in modern healthcare facilities. As another point of reference, air leakage testing on an unsealed 3-1/4 by 3-1/4 in. blank opening resulted in an air leakage of 131.9 CFM/Opening. Clearly, the EZ-Path® Fire Rated Pathways do restrict the transfer of smoke. Based upon this line of reasoning, it is our judgment these devices comply with the requirements of Section 8.5.6.2 in the 2009 Edition of NFPA 101 "Life Safety Code®".

As always, the ultimate decision regarding the suitability of any product or system in meeting code requirements lies solely with the local authority having jurisdiction. While this represents our judgment based on our experience with how code officials have interpreted various provisions of building codes relating to passive fire and smoke protection, in no way is it meant to usurp a local authority having jurisdiction's power to determine final code compliance and acceptance.

Please let me know if you need anything further on this topic.

Very truly yours,

Richard N. Walke

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