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ADI TECHNICAL BULLETIN – SMOKE TRANSMISSION THROUGH OPENINGS IN HEALTHCARE PATIENT SLEEPING ROOM WALLS

DISCLAIMER: This bulletin is for information only and is not to be relied upon in making any decisions regarding code issues, which of course should be addressed with your state and local officials, a registered professional engineer, your insurance carrier and any other authority having jurisdiction (AHJ.)

SUBJECT: Health Care Occupancy, Patient Sleeping Room Corridor Wall Openings/Smoke Passage & ADI'S BALL-IN-THE-WALL[®] Indicator.

DATE: September 24, 2013

ISSUE: NFPA 101*, section 18.3.6.5.1 does not allow openings in sleeping room corridor walls. Does ADI offer a solution for limiting smoke passage through ADI'S BALL-IN-THE-WALL[®] indicator? (Answer is yes!)

DISCUSSION:

In NFPA 101*, sections 18.3.6.2.3 and 19.3.6.2.3, the wall construction must "limit the transfer of smoke." In section A18.3.6.2.3, the wall is not intended to be a smoke barrier or smoke partition as defined under the *Code*. Section A.19.3.6.2.3, recognizes small holes and penetrations do not affect the ability of the wall to limit the passage of smoke, section 18.3.6.5.1 prohibits openings in patient bedrooms within a smoke compartment.

ADI meets both requirements via ADI'S tube end-cap design which is closed off by the BALL-IN-THE-WALL[®] indicating sphere. Anytime the room door is opened (in which smoke transfer through the wall is not an issue), the hole allows passage of air to move the indicating sphere down its incline to the failsafe position. When the door remains closed, proper room differential pressure causes the indicating sphere to reach the other end-cap, thereby limiting the passage of smoke and air while still maintaining an indication of room pressure! Simple!

* *NFPA 101 Life Safety Code* [®] *HANDBOOK*, Ron Cote, P.E., Gregory E. Harrington, P.E., Twelfth Edition, ISBN 978-1-616-65129-9 © 2011 is a publication of the National Fire Protection Association, One Batterymarch Park, Quincy, MA 02169

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