



# Airflow Direction Inc.

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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, Smoke Passage & ADI's Baulin-tube ® Indicator.

DATE: February 4, 2004 - REVISED 3/31/04

ISSUE: Does ADI offer a solution for limiting smoke passage through ADI's indicator, since NFPA 101\*, section 18.3.6.5 and section 19.3.6.5 do not allow openings in sleeping rooms?

### DISCUSSION:

In NFPA 101\*, section 19.3.6.2.2, the wall construction must limit the transfer of smoke. In the Handbook Tutorial on page 561, the terms "resist the passage of smoke" are used.

ADI achieves this requirement via the ADI's patented tube end-cap which has a hole in it that is closed off by the 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, pushing the sphere against the end-cap hole and thus the passage of smoke and air is limited.

\* *NFPA 101 Life Safety Code* ® *HANDBOOK*, Ron Cote, P.E., Eight Edition, ISBN 0-87765-448-4 © 2000 is a publication of the National Fire Protection Association, One Batterymarch Park, Quincy, MA 0269

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