

Smoke Control: Recent Progress and Areas for Improvement

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Abstract: This presentation will provide an overview of how the technical basis for the design of smoke control systems has improved significantly over the last 3 decades. Improvements have been achieved relative to the understanding of the key parameters which affect the performance of these systems and the development of standards and engineering tools which form the technical basis to support the design of these systems. Even with all of the improvements, the aspects of smoke control design which need further development will also be identified. The discussion will include a wide variety of smoke control systems, such as stairwell pressurization systems and atrium exhaust systems, among others.

Biography: James A. Milke, P.E., is Professor and Chair of the Department of Fire Protection Engineering at the University of Maryland. He received his Ph.D. in Aerospace Engineering, M.S. degree in Mechanical Engineering and B.S. degree in Fire Protection Engineering from the University of Maryland. In addition, he has a B.S. degree in Physics from Ursinus College. Dr. Milke has served as a Research Fire Prevention Engineer at the Building and Fire Research Laboratory, National Institute of Standards and Technology, as the Fire Protection Engineer for Fairfax County, Virginia. Dr. Milke is a Fellow and a past president of the Society of Fire Protection Engineers and is a member of the National Fire Protection Association (NFPA), UL Fire Council and International Association of Fire Safety Science. He is a past member of the NFPA Standards Council and past chair of the NFPA Committee on Smoke Management Systems.