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THE AAMA SMOKE VENT TASK GROUP
MEMORANDUM-SEPTEMBER 10, 1999

The final report on testing of the interaction between sprinklers and smoke/heat vents conducted at Underwriters Laboratories(UL) in 1997/1998, referred to as NISTIR 6196-1, was published in September 1998. The testing at UL determined that the operation of sprinklers interfered with the opening of individually-activated smoke/heat vents where the temperature rating of the activating mechanism of the vents was the same as the temperature rating of the sprinklers. In many of the tests conducted, no vents opened.

Based upon the fact that the operation of sprinklers interfered with the opening of smoke/heat vents, a code change proposal was submitted to eliminate the requirement to provide smoke/heat vents in buildings protected by sprinklers in the 1999 ICC code change cycle.

To address the finding that smoke/heat vents interfered with the operation of smoke/heat vents and to counter the code change proposal to delete the requirement for the installation smoke/heat vents in buildings protected by a sprinkler system, the AAMA Smoke Vent Task Group (SVTG) announced a new research project on the interaction of sprinklers and smoke/heat vents on September 10, 1999. The following is the text of the announcement of the new research project. (This proposed research project has yet to commence.)

AAMA SMOKE VENT TASK GROUP
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September 10, 1999

Re: American Architectural Manufacturers Association-
Smoke Vent Research Project

The AAMA Research Foundation and the AAMA Smoke Vent Task Group are pleased to announce the commencement of the AAMA Smoke Vent Task Group's research project. This project will study the interaction of smoke vents, draft curtains and sprinklers, and to develop scientifically based engineering design criteria for the installation of draft curtains and vents. An Action Plan summary is attached for your review.

Highlights of the 3-5 year study, focusing on life safety and property protection issues are:

- Design method and development of Validation Tests
    - Large eddy simulation (LES) Computer Model
    - Link actuated vent computer model with sprinklers (LA vent)
- Full-scale testing
- Finalization of results
    - Compare LES & LA Vents with test data
    - Finalize report and LA vents
- Validate LA Vent(s)
- Complete software development and users guide for LA Vents
- Smoke vent and draft curtain design criteria (from modeling and full-scale tests)
- Vent/sprinkler synergism performance study (from modeling and full-scale tests)
    - Alternative activation methodologies
    - Draft curtain design alternative
    - Make-up air design criteria
- Formalize engineering design criteria for installation of smoke vents and draft curtains

The project will be coordinated by Dr. Craig Beyler, of Hughes & Associates, Inc., and will utilize Hughes' team of researcher professionals. Others who have committed to participate in the project are NIST and the University of Maryland Fire Protection Engineering Department.

I would encourage anyone interested in participating in the study to contact the AAMA Smoke Vent Task Group Chairman, Paul Simony, directly at (800) 609-9995, extension 268. Shortly we will be organizing a Technical Advisory Committee (TAC) to participate in developing the parameters for the full-scale tests. We are also searching for an appropriate building in the range of 50,000 sq. ft. or more to conduct the full-scale tests. Suggestions on a suitable location would be greatly appreciated.

If you would like additional information, please contact me at the above number.

Paul Simony
Chairman-AAMA Smoke Vent Task Group