

SCHULTE & ASSOCIATES

Building Code Consultants
880D Forest Avenue
Evanston, IL 60202
fpeschulte@aol.com
504/220-7475

QUESTIONS ON THE ROOF VENT PRESENTATION BY DR. CRAIG BEYLER BALTIMORE, MARYLAND MAY 22, 2008

Individually-Activated Smoke/Heat Vents

- How did the Hughes Associates, Inc. (HAI) FDS modeling study on buildings determine the number of vents which opened and the time at which the vents open?
- How many smoke/heat vents were assumed to open and at what times were the vents assumed to open in HAI's modeling study of vents in sprinklered buildings?
- Has FDS model been validated/evaluated for purposes of predicting the time at which vents will open in buildings protected by standard spray sprinklers?
- In the HAI's FDS modeling study what was the temperature rating and RTI of the sprinklers and the temperature rating and RTI of the vent activating mechanism used in the study? What is the range of RTI for activating mechanisms of vents?

"Ganged" Operation of Smoke/Heat Vents

- Is the FDS model capable of predicting delays in sprinkler activation and sprinkler activation failure referred to as "sprinkler skipping"?
- Has the FDS model been validated/evaluated for the purpose of predicting "sprinkler skipping"?
- How does the research study address the use of sprinklers with other RTIs than the sprinkler modeled in the study?
- How does the research study address the use of the "ganged" roof vent concept in rack storage arrays which are protected by in-rack sprinklers?
- How does the research study address the use of the "ganged" roof vent concept in buildings which are protected by a dry sprinkler system?
- How does the research study predict the delay in water discharge from sprinklers in a dry system (without knowing the size or lay-out of the piping system)?