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CONTROL MODE SPRINKLERS AND ROOF VENTS: NFPA 204-THE HIGHLIGHTS

By Richard Schulte

The following are two excerpts from Annex F.3 in the 2007 edition of NFPA 204, *Standard for Smoke and Heat Venting*:

“The studies of smoke and heat venting used in conjunction with control mode sprinklers do not provide evidence that venting has a negative effect on control mode sprinkler performance.”

“The experimental studies have shown that early vent activation has no detrimental effects on control mode sprinkler performance . . .”

The 2010 edition of NFPA 13, *Standard for the Installation of Sprinkler Systems*, includes provisions for the use of roof vents and draft curtains in combination with control mode sprinklers in storage occupancies. These provisions require that smoke and heat vents installed in buildings protected by control mode sprinklers either be manually-activated or, if the automatic vents are provided, the activating mechanism for the vents have a temperature rating one temperature classification higher than the temperature classification of the sprinklers.

If “*early vent activation has no detrimental effects on control mode sprinkler performance*”, why would NFPA 13 include special provisions addressing the use of roof vents in storage buildings protected by a sprinkler system? The answer to that question should be obvious—the NFPA 13 committee and the Smoke Management Committee disagree on the effect of “*early vent activation*” on sprinkler system operation in storage buildings. Given this disagreement, it would appear that consensus has **not** been reached on the issue of the use of vents in storage buildings protected by a sprinkler system where control mode sprinklers are utilized.

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