Sloped Attic Spaces

The 2002 edition of NFPA 13 has revised requirements for the protection of sloped combustible attic spaces with construction members spaced three feet or less on center and a pitch of 4/12 or greater. The maximum protection area and maximum spacing requirements are found in Table 8.6.2.2.1(a). The maximum protection area has been reduced to 120 square feet while the maximum spacing is identified as either 8' x 15' or 10' x 12' depending on the minimum psi utilized in the hydraulic calculations. Section 11.2.3.1.8(12) also references the minimum head pressure requirements of Table 8.6.2.2.1(a).

An important footnote at the bottom of the table states, "The smaller dimension shall be measured perpendicular to the slope". One way to explain this is to say that the 8' dimension in the 8' x 15' option and the 10' dimension in the 10' x 12' option are measured between sprinklers parallel with the peak. Another is to say that the smaller dimension is measured perpendicular to the attic trusses.

Along with the changes for protection area, sprinkler spacing and hydraulic calculation considerations; location requirements have also been revised. Section and Figure 8.6.4.1.4, as amended by the Minnesota State Fire Code, identifies the new requirements. Sprinklers must be installed within 12" horizontally of the peak arranged with the deflectors 1" to 12" below the peak. Also, as amended by the Minnesota State Fire Code, sprinklers located along the eaves must be located not less than 5' from the intersection of the truss cords.

One final note, Section 8.6.4.1.4.1 requires sprinklers in the space to be quick response.