Please give a copy of this to your insulation contractor

IMPORTANT !!!!!!!!!!!
IF YOU CAN NOT SEE ALL THE PIPE UNDER THE I INSULATION IT IS SUBJECT TO FREEZING

5.4 System Types.

5.4.1 A wet pipe system shall be used where piping is installed in areas that can be maintained reliably above 40°F (4°C).

Wet pipe systems are the most reliable and simplest of all sprinkler systems because they have the fewest parts and water discharges from the sprinklers as soon as they open. Since only those sprinklers closest to the fire open from the heat of the fire, water is conserved. Wet pipe systems are recommended wherever possible.

5.4.2* Piping in areas that cannot be maintained reliably above 40°F (4°C) shall be protected by use of one of the following methods:

(1)* Antifreeze system using a listed antifreeze solution in accordance with NFPA 13
(2) Dry pipe system
(3) Preaction system
(4) Listed dry pendent, dry upright, or dry sidewall sprinklers extended from pipe in heated areas
(5) Heat tracing in accordance with 6.7.2.2

ASK THE AHJ

Many are familiar with dry pipe sprinkler systems, but what is a dry sprinkler?

Dry sprinklers are a custom-ordered type of sprinkler that has two caps and a built-in drop/armover. (Exhibit I.7.3 shows examples of sprinkler types). Typically in a dry sprinkler, there is a sprinkler cap held on by the external fusible element and another cap at the other end of the assembly where the sprinkler's drop/armover connects to the branch line. A mechanism within the sprinkler's drop/armover keeps both caps closed if the sprinkler has not activated and opens both caps if the sprinkler operates. The drop/armover normally contains no water, so the sprinkler can be installed in an area subject to freezing while it is connected to a wet sprinkler branch line in an adjacent heated space.

A.5.4.2 Piping covered by insulation, as shown in Figure A.5.4.2(a) through Figure A.5.4.2(f), is considered part of the area below the ceiling and not part of the unheated attic area.

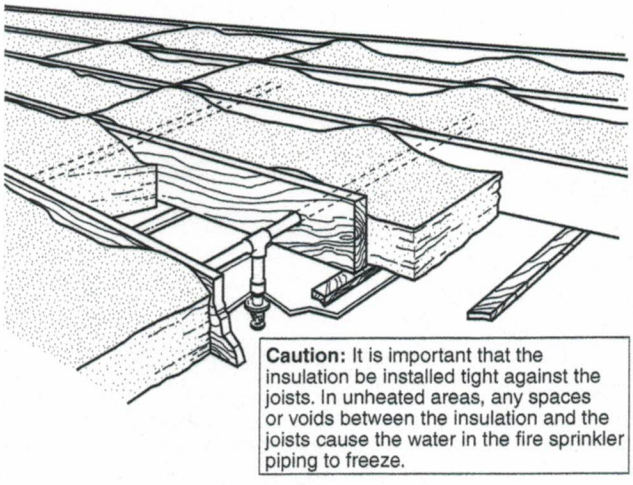

FIGURE A.5.4.2(a) Insulation Recommendations — Arrangement 1.

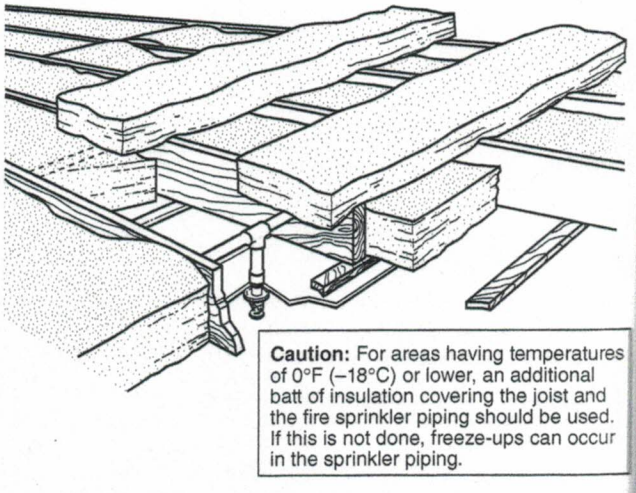

FIGURE A.5.4.2(b) Insulation Recommendations — Arrangement 2.

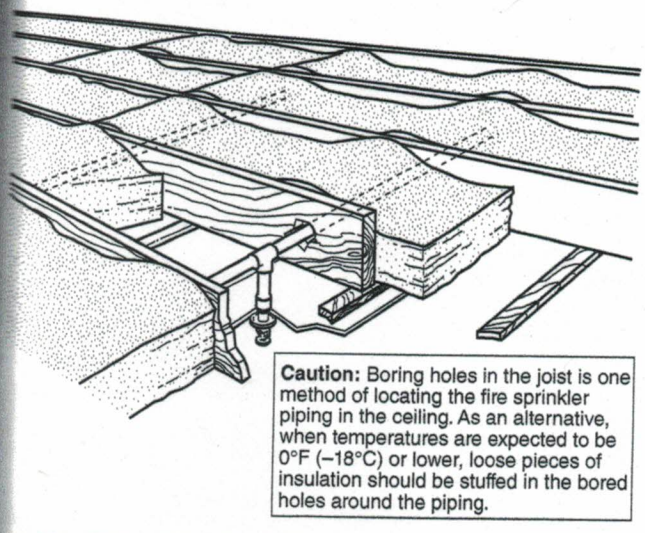

FIGURE A.5.4.2(c) Insulation Recommendations — Arrangement 3.

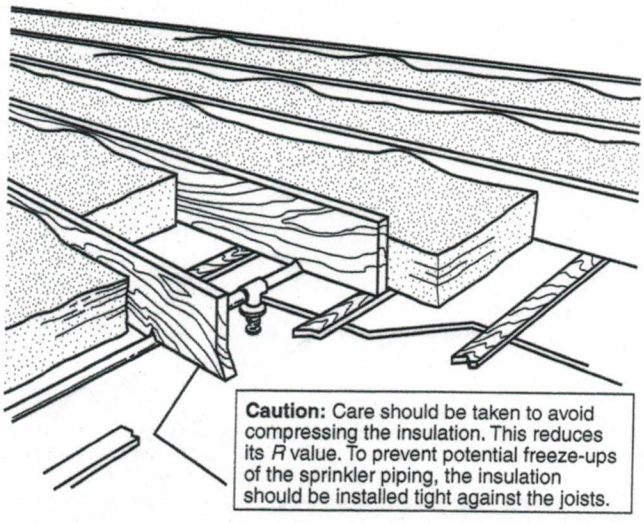

FIGURE A.5.4.2(d) Insulation Recommendations — Arrangement 4.

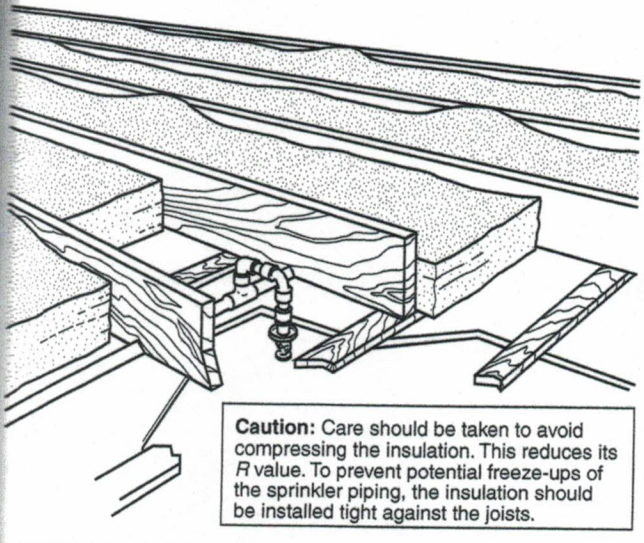

FIGURE A.5.4.2(e) Insulation Recommendations — Arrangement 5.

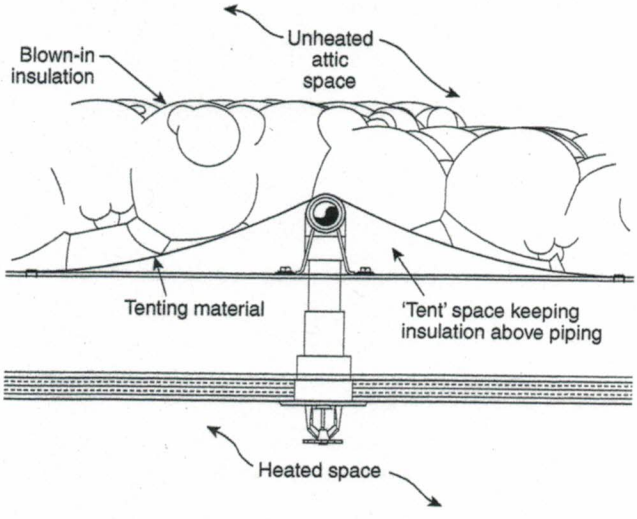

FIGURE A.5.4.2(f) Insulation Recommendations — Arrangement 6.

A.5.4.2(1) The use of antifreeze solutions in all new sprinkler systems should be restricted to listed antifreeze solutions only.

Dry pendent, dry upright, and dry sidewall sprinklers are specially designed to prevent water from entering the pipe between the sprinkler supply pipe (branch line) and the sprinkler's operating mechanism. These sprinklers can be used on wet pipe systems where individual sprinklers are extended into spaces subject to freezing.

FAQ

How can small spaces subject to freezing be addressed with a wet pipe system?

Arrangement 6 was added in the 2016 edition. This is a common method of freeze protection referred to as "tenting." It is critical that the insulation be thick enough over the pipe so that,