

**FIRE PROTECTION HISTORY-PART 112: 1929
(PRESSURE RATINGS OF CAST IRON FITTINGS)**

By Richard Schulte

One of the technical issues discussed at the Annual Meeting of the National Fire Protection Association in 1929 was the minimum required pressure rating of cast iron pipe fittings used in sprinkler system installations. The following is a transcript of the discussion regarding this issue:

“Mr. Mowrey: The Chairman of your Committee on Hydrants, Valves, and Pipe Fittings has continued to represent the N.F.P.A. on the American Standards Association Committee on the Standardization of Pipe Flanges and Fittings. You will be interested to know that after many unavoidable delays, the N.F.P.A. specifications for cast iron, long-turn sprinkler fittings has been through the machinery of the American Standards Association and has been recommended by the sponsors for adoption. In fact, the process of approval has been completed and we expect that very shortly it will be released as a national standard.

At the time the standard was submitted to the American Standards Association our sprinkler fittings were rated for 150 pounds maximum water pressure. In fact, they are still rated for that maximum pressure. But other cast-iron fittings now being approved by the American Standards Association have two ratings, a 125-pound rating for steam pressure and a 175-pound rating for water pressure, which leaves our fittings a little bit out of step. According to our rules, extra heavy fittings would be required in a sprinkler system after the pressure passes 150 pounds.

This matter was referred to a subcommittee of our Sprinkler Committee and we unanimously agreed that we could advance the rating of our sprinkler fittings to 175 pounds. That would merely mean changing the last few words in Section 421 of the Sprinkler Regulations from 150 pounds to 175 pounds.

As this suggestion has not been passed upon by the main Sprinkler Committee, of course, this body cannot take action, but I would propose that the Association refer the matter to the Sprinkler Committee with power, so that, in order to avoid wasting another year, if the Sprinkler Committee unanimously approves this action, I can then put the matter up to the American Standards Association recommending that the sprinkler fittings be given a 175-pound water rating, which means that our sprinkler systems then would be standard up to 175 pounds.

I feel sure that the sprinkler contractors and pipe-fitting manufacturers believe that this is a wise measure. I know that Mr. Hendricks of the Underwriters Laboratories does. So I move, Mr. President, that this matter be referred to the Sprinkler Committee with power to act before the next annual convention.

(The motion was adopted.)

And now we know the story behind how the minimum required pressure rating for cast-iron fittings used in sprinkler system went from 150 psi to 175 psi.

* * * * *

Source: *“Proceedings of the Thirty-third Annual [NFPA] Meeting”, Memphis, Tennessee, 1929.*