



Coffee Break Training - Fire Protection Series

Automatic Sprinklers: Hydraulic Nameplate Data Sources

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Learning Objective: The student shall be able to identify information sources to document the sprinkler system hydraulic design.

Coffee Break Training 2012-16 described the information that is required on hydraulic nameplates by National Fire Protection Association (NFPA) 13, *Standard for the Installation of Sprinkler Systems*. The nameplate provides an important record of the system design criteria and expected performance.

What can the inspector do when confronted with the situation shown in today's illustration where there is no obvious information about the system? How can the inspector evaluate whether the system design is appropriate for the hazard it protects? Where can the inspector find additional information?

A little detective work might go a long way toward solving the mystery. One step might be to check the spare sprinkler box that should be mounted near the riser. While it may not contain the hydraulic design data, there is a fair chance the system installer's contact information may be posted there. The inspector can contact the installing company to obtain design information and request that the installer complete the information on the hydraulic nameplate as required by NFPA 13. (There is always a chance that the installer is no longer under contract with the owner and may express no obligation to complete the job.)

One obvious information source is the system designer, who may not represent the same person or company that installed the system. For example, an independent fire protection system designer may have created the plans and hydraulic calculations and sold those materials to a separate installation contractor.

Another source of information might be the building department or fire marshal's office that reviewed the plans prior to installation. The permitting authority may well have maintained records that include the drawings, material specifications, and hydraulic calculations. Even the project architect might have access to the information because he or she may have specified the sprinkler system design requirements as part of the construction permit package.

If the building owner or tenant is not able to provide additional information, the inspector may ask for the property insurance underwriter's contact information. The insurance company may have a copy of the plans and calculations or have conducted an inspection at the time the policy was written to verify the design criteria. It is important not to assume that the design criteria meet only the minimum requirements of NFPA 13: the insurance carrier may have specified additional requirements (such as a greater discharge density or larger area of application) based on its risk assessment and underwriting requirements.

There is no substitute for competent recordkeeping to be able to assess a fire protection systems' performance. An accurate hydraulic nameplate is one part of that recordkeeping obligation.



Important design and performance data has been omitted from this hydraulic nameplate.



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