



Coffee Break Training - Fire Protection Series

Inspection Techniques: Fire Protection System Repairs

No. FP-2011-18 May 3, 2011

Learning Objective: The student shall be able to identify the person or person(s) responsible for making authorized repairs to water-based fire protection systems.

There is very little that frustrates a tenant of a sprinklered building more than leaking pipes. In today's illustration, a leak at the joint between the pipe and fitting caused someone to apply putty as a stop-gap measure.

Repair guidance for situations like this is found in National Fire Protection Association (NFPA) 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*. The property owner or designated representative is responsible for correcting or repairing deficiencies or impairments found during the inspection, test, and maintenance required by the standard. NFPA 25 also requires that corrections and repairs be performed by qualified maintenance personnel or a qualified contractor.

NFPA 25 states "Needed corrections and repairs should be classified as an impairment, critical deficiency, or noncritical deficiency according to the effect on the fire protection system and the nature of the hazard protected." This leaking pipe may not qualify as an impairment or critical deficiency, but it clearly deserves timely attention and reporting. (See Coffee Break Training 2006-12 for impairment guidance.)

The informational annex to NFPA 25 makes the following recommendations:

Condition	Recommended Action
Impairments	These are the highest priority problems found during inspection, testing, and maintenance and should be corrected as soon as possible. The fire protection system cannot provide an adequate response to a fire, and implementation of impairment procedures outlined in NFPA 25 is required until the impairment is corrected.
Critical deficiencies	These need to be corrected in a timely fashion. The fire protection system is still capable of performing, but its performance can be affected and the implementation of impairment procedures might not be needed. However, special consideration must be given to the hazard in the determination of the classification. A deficiency that is critical for one hazard might be an impairment in another.
Noncritical deficiencies	These do not affect the performance of the fire protection system, but should be corrected in a reasonable time period so that the system can be properly inspected, tested, and maintained.



A water-resistant putty was applied to this branch line in an attempt to stop a leak at the joint between the pipe and fitting. Photo courtesy Byron Blake.



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