

Testing For Dry Pipe SPRINKLER System

General

Prior to completion of the installation of a Dry Pipe System, the piping must be tested for strength and water leakage (hydrostatic test) and for air leakage (air test). The test results must be recorded on the Contractor's Material and Test Certificate.

Hydrostatic Test

The 2-hour, 200 psi hydrostatic test of the sprinkler system piping must be conducted with the valve clapper latched in the open position. The rubber seal on the face of the clapper may be ruptured if the valve is tested with the clapper in the closed position. The test should be conducted as weather permits to prevent freezing of the piping.

Air Test

The 40 psi air pressure test of the sprinkler system piping must be conducted to verify there are no leaks that would allow a pressure loss of 1.5 psi or more during the 24-hour test period.

Acceptance Testing

After the installation of a Dry Pipe System is complete and prior to final acceptance by the Authority Having Jurisdiction, the installer must conduct a Main Drain Test, Alarm Test, and Trip Test. The test results must be recorded on the Contractor's Material and Test Certificate.



The Dry Pipe Sprinkler System can not be acceptance tested in accordance with NFPA 13 and cannot be inspected, tested and maintained in accordance with NFPA 25. The Ohio Fire Code requires an acceptance test on a new system and then must be tested annually and also a full flow trip test every three years.

The design of the system does not include an inspectors test valve. Therefore, a full trip test can not be done. Also the hydrostatic test required on acceptance test can not be done.

The reason for not being able to do the required test is due to the fact that the area protected is in an MRI room. Introducing water into the lines would possibly damage the equipment.

A variance needs to be granted stating that the hydrostatic test is not required and that a full trip test is not required. The method of approved testing should be listed in the variance.

Without this the dry pipe sprinkler system would be in violation of the Ohio Fire Code for acceptance testing and then on the full trip test every 3 years.

The Ohio Fire Code does not permit the certified fire inspector in making variances to the Ohio Fire Code or its referenced documents including NFPA 13 and 25.

The required test documentation can be explained to why the system acceptance test was not done by code and recorded on the Contractor's Test Certificate fully by using the variance explanation.

The part that I have a difficult time in understanding is why a facility would have a system installed that they could not have tested by code. There were alternatives to protecting the hazard that would have meet code. The facility choose to install a system that could not be tested by code. They now after the fact want to get a variance so it would not be in violation of the code. It seems the time to request this would have been before they completed the work. Then if it was approved the work could have been done. What if the variance is not granted? Honestly, I could not say that there was not another system available to protect the MRI room. If water was a problem an FM-200 would have been another type of system. The reason that they did not want to spend the money to be code compliant is weak.

If the variance is granted then the as built plans should show the change that was approved.