

U.S. Fire Administration / National Fire Academy

Coffee Break Training

Topic: Sprinkler Main Drain Tests

Learning objective: The student shall be able to conduct a sprinkler system main drain test.

The annual main drain test for automatic sprinkler systems is an important test to evaluate the condition of the water supply. Test results should be documented over time to determine if there are changes in the water pressure or flow to the sprinkler system.

To conduct a main drain test:

1. Observe and document the static pressure on the supply side of the alarm or dry pipe valve.
2. Slowly open the main drain and allow the water to run until clear. Frequently, this is about 2 minutes.
3. Watch the needle on the supply side gauge. When it stabilizes, note and document the residual pressure.
4. Slowly close the main drain valve.



Compare the residual pressure results to previous tests. Deteriorating conditions should be brought to the attention of the building owner to take corrective action. If there is a dramatic drop from previous test results, it suggests there may be a partially closed valve or other obstruction in the supply water main.

For additional information, refer to NFPA 25, *Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems*.