

U.S. Fire Administration / National Fire Academy

*Coffee Break Training***Topic: Sprinkler Field Service Tests**

Learning objective: The student shall be able to identify the required frequency for sprinkler field service tests.

Automatic fire sprinklers must be replaced or field tested once they have been in service for a number of years. The tests are conducted by a recognized testing laboratory to verify that the aging sprinklers will perform as they were intended to do when they were manufactured.

NFPA 25, *Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems*, establishes the testing frequency:

- Sprinklers manufactured prior to 1920 must be replaced.
- Where sprinklers have been in service for 50 years, they must be replaced or a representative sample (about 1%) from one or more sample areas are to be tested. The test procedures are to be repeated at 10-year intervals.
- Where sprinklers have been in service for 75 years, they are to be replaced or representative samples from one or more sample areas must be tested. Test procedures must be repeated at 5-year intervals.
- Dry sprinklers that have been in service for 10 years must be tested or replaced. If maintained and serviced, they are to be retested at 10-year intervals.
- Sprinklers manufactured using fast-response elements that have been in service for 20 years must be tested. They are to be retested at 10-year intervals.
- Representative samples of solder-type sprinklers with a temperature classification of extra high 325 °F (163 °C) or greater that are exposed to semi-continuous to continuous maximum allowable ambient temperature conditions must be tested at 5-year intervals.
- Where sprinklers are subjected to harsh environments, including corrosive atmospheres and corrosive water supplies, sprinklers must either be replaced or representative sprinkler samples must be tested at 5-year intervals.



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The 1914 model sprinkler on the left has been removed from service.