

**MINNEAPOLIS FIRE DEPARTMENT
FIRE PREVENTION BUREAU POLICY # 9-7
ACCEPTANCE TESTING OF FIRE ALARM AND COMMUNICATIONS SYSTEMS**

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ISSUE:

Define the level of involvement of MFD Inspectors in acceptance tests.

CODE REQUIREMENTS:

The Fire Code requires new and expanded alarm and communications systems to be tested in accordance with NFPA #72. The contractor is required to provide qualified persons to perform those tests.

PROBLEM:

The Fire Code and NFPA #72 dictate that all devices are tested, but they do not require that a fire inspector witness those tests. It has been MFD's experience that having an inspector present for acceptance testing assures that the tests are done and that the system initially operates properly. MFD Inspectors are to witness acceptance tests as outlined in this document.

ACCEPTABLE COMPLIANCE:

1. The fire alarm contractor is responsible for scheduling the acceptance test, to provide all of the equipment and materials necessary for the testing and for scheduling all other needed or interested parties. The contractor is to have a set of approved plans and data sheets on the job site.
2. The contractor is to perform a 100% pretest and provide written documentation, including an event history, that all devices were tested prior to our witnessing an acceptance test.
3. MFD Inspectors witness tests and do not perform the testing. The inspector may stop the testing whenever it is found that the system or device is not operating correctly.
4. Detection devices are to be tested in accordance with their listing. All functions required of a detector are to be verified, e.g. fan shutdown, damper closing, etc.
5. The inspector is to witness the following tests:
 - a. Detection devices: 25% of the detectors on each circuit (but not less than 2), 1 of which is to be the last device on that circuit.
 - b. Supervisory devices: Each supervisory device is to be tested in the manner of normal operation. Valve tamper switches by closing the valve, waterflow switches by actually flowing water, etc.
 - c. Trouble conditions: each circuit is to be put into a trouble condition, power sources are to be disconnected, etc.
 - d. Notification devices: All devices in common areas and the devices in 25% (but not less than 2) of dwelling units on each circuit are to be tested. The alarm tone sound level is to be measured at 5 feet above the floor in each sleeping room with doors closed. The alarm tone sound level is to be at least 75 dBA.
 - e. Fire fighter communications: 50% of the phone jacks on each circuit are to be tested, including the last one on the circuit.