



Department of Neighborhood Services Fire Alarm Testing Requirements

In July of 2002, The State of Wisconsin Dept. of Commerce required all municipalities to adopt either NFPA 1 and 101 or the International Fire Code (IFC) as their fire safety code for maintenance and operations governing all commercial buildings including multifamily dwellings (3 family or greater). This is summarized in Comm 14 – Fire Prevention Code. The City of Milwaukee chose to adopt the IFC and this became effective in July of 2002. With the adoption of the IFC, DNS is now required to enforce the testing and maintenance requirements for all fire alarm systems. Section 907.20 of the IFC requires that all fire alarm systems be tested and maintained in accordance with NFPA 72 (1999 edition).

What does this mean?

If you own a commercial building that has a fire alarm system, this system must be functioning and must be tested by qualified personnel who are then required to produce a report. Typically this must be done on an annual basis. You will then be required to have a copy of this report on hand for DNS inspectors to review upon demand.

Who is qualified to conduct these tests and provide the report?

Per NFPA 72, only service personnel qualified and experienced in the testing and maintenance of alarm systems can perform the tests. They include:

- Factory trained and certified (for the fire alarm system that you have).
- National Institute for Certification in Engineering Technologies fire alarm certified (NICET).
- International Municipal Signal Association fire alarm certified (IMSA).
- Trained and qualified personnel employed by an organization listed by a national testing laboratory for the servicing of fire alarm systems.

Is there any part of the testing that I can have done by someone other than the qualified personnel listed in NFPA 72?

Besides annual functional testing and sensitivity testing, NFPA 72 requires routine visual checks of a system to verify that it is in operating condition and free from visible defects or damage. For some systems these visual checks are required to occur more than once per year – sometimes monthly depending on the device. Per the IFC, because special knowledge and tools are not required to conduct these visual tests, inspections may be done by any reasonably competent person. These inspections must be recorded and be part of the final annual report.

What has to be on the report?

Besides the date of the testing, the address of the property where the alarms were tested and the property owner's name and address, the following information is also required per NFPA 72:

- Test frequency
 - Name of person performing inspection, maintenance, tests and business address, plus telephone number
 - Name, address, and representative of approving agency(ies)
 - Designation of the detector(s) tested, for example, "Tests performed in accordance with Section ____."
 - Functional test of detectors
 - Functional test of required sequence of operations
 - Check of all smoke detectors
 - Loop resistance for all fixed-temperature, line-type heat detectors
 - Other tests as required by equipment manufacturers
 - Sensitivity test results and action (if any) or date of when next sensitivity test is due.
 - Signatures of tester and approved authority representative
- Disposition of problems identified during test (e.g., owner notified, problem corrected/successfully retested, device abandoned)

Now that I need to have my system tested and a report provided, where do I go to have this done?

Many property owners are already having this done. Quite often, insurance companies require this testing as part of a policy. There is a list of companies in the SBC yellow pages under *Fire Alarm Systems* that may provide this service. There is also a lengthy list under *Fire Alarm Systems* in the Industrial Purchasing Guide offered by SBC.

Does the alarm system only need to be tested for function?

No, the system is also required to be tested for sensitivity specifically for the smoke detectors. Functional testing verifies two things. First, that the entire fire alarm system components are working – they respond when triggered. And second that they operate properly – all parts are working as they are intended. Sensitivity testing verifies that each smoke detector is within its listed and marked sensitivity range.

Does each smoke detector need to be tested for sensitivity every year?

Sensitivity shall be checked within one year after installation. Sensitivity shall then be checked every alternate year thereafter. But, if after the second required calibration test the sensitivity test indicates that the device has remained within its listed and marked sensitivity range, the length of time between calibration tests shall be permitted to be extended to a maximum of 5 years.

What’s the difference between a smoke detector and a smoke alarm?

A smoke detector is a device that detects visible or invisible particles of combustion and triggers an alarm to sound. A smoke alarm is an all-inclusive unit. It contains the power source (battery), the detector (smoke or heat detecting device), and the alarm sounding device (horn or buzzer) all within one unit.

I have an older apartment building that only has battery operated smoke alarms. Do I have to hire these trained personnel to test my alarms?

NO. If you only have battery operated smoke alarms, at this time they are not required to be tested in accordance with NFPA 72 **BUT** are required to be tested in accordance with sect. 214-23 of City of Milwaukee Code of Ordinances Vol. II. This section of the code requires the owner to test the function of the alarm in accordance with the manufacturer's requirements. This must be done once a calendar year. The owner can assign this task to an agent on his behalf but the owner is responsible to ensure that it is done and is responsible to produce a report. This report needs to include:

- Property Owner’s name.
- Address of property where testing was performed.
- Date on which the testing was performed.
- Number of alarms that were tested.
- Outcome of each test – *functioned properly or failed to respond.*
- List of which alarms failed and how they will be or were repaired with time frame.
- The name, phone number and property relationship of the person who performed the test.

This testing requirement affects all residential uses including one and two family dwellings.

What if I have battery operated smoke alarms and manual pull stations with horns. Can I, as the owner, do all the testing of these devices?

No. You can only test the battery operated smoke alarms. Qualified personnel as listed in NFPA 72 must test the function of the pull stations and horns.

What is a battery operated smoke alarm with a silencing switch (hush button)?

The silencing switch feature allows a user to cancel the alarm sound for a period of 7 to 15 minutes depending on the type of unit. This is done by pushing the silencing switch on the device. The intent is to discourage users from disconnecting the battery when a false alarm is heard due to smoke from cooking.

I heard that any battery operated smoke alarm within a unit will now need a silencing switch feature. Is this true?

Only if they are within 20 feet of the primary cooking appliance in the dwelling. This would be the main stove or oven in the unit. *This requirement becomes effective beginning September 21, 2005. It affects all residential uses including one and two family dwellings.*