



DEPARTMENT OF COMMUNITY AFFAIRS
DIVISION OF FIRE SAFETY
P.O. BOX 809
TRENTON, NEW JERSEY 08625-0809



BULLETIN: 2006-02

SUBJECT: Subchapter 4 Supervision of Alarm Systems;
And windowless story or basements

REFERENCE: N.J.A.C. 5:70-4.7(h) 6., N.J.A.C. 5:70-4.7(h) 7.ii.,
N.J.A.C. 5:70-4.7(k), and N.J.A.C. 5:70-4.9(c)

ISSUE DATE: June 21, 2006

This Bulletin is intended to provide guidance concerning supervision of fire suppression and fire alarm systems as required by Subchapter 4, the retrofit provisions.

I. Fire Suppression and/or Fire Alarm System Supervision

Two sections of Subchapter 4 address the requirements for the monitoring of fire suppression systems and the monitoring of automatic fire alarm systems.

N.J.A.C. 5:70-4.7

(k) Fire suppression systems required by this Code shall be supervised by one of the following methods as determined by the fire official:

1. Approved central station system in accordance with NFIPA 71;
2. Approved proprietary system in accordance with NFIPA 72D;
3. Approved remote station system of the jurisdiction in accordance with NFIPA 72C; or
4. Approved local alarm service which will cause the sounding of an alarm in accordance with NFIPA 72A;
5. The following are exceptions to (k) above:
 - i. Underground gate valves with roadway boxes;
 - ii. Halogenated extinguishing systems;
 - iii. Carbon dioxide extinguishing systems;
 - iv. Dry chemical extinguishing systems; and
 - v. Limited area sprinkler systems.

N.J.A.C. 5:70-4.9

(c) Automatic fire alarm systems required to be supervised by this Code shall employ one of the following methods as determined by the fire official:

1. Approved central station system in accordance with NFIPA 71;
2. Approved proprietary system in accordance with NFIPA 72D;
3. Approved remote station system of the jurisdiction in accordance with NFIPA 72C;
4. Approved local alarm service which will cause the sounding of an alarm in accordance with NFIPA 72A.

In both of these sections the choice of the supervising method to be employed is the choice of the Fire Official. It is not the choice of the owner/occupant. To properly reflect this provision of the code, ALL violation notices issued that involve either of these supervision sections shall specify the method to be utilized.

All of the referenced standards listed for the types of supervision require electrical supervision of the system status with visual and audible indications of alarm activation, trouble alarms and supervisory alarms. In addition to the system alarm panel installed in the protected premise, Method No. 1 central station, Method No. 2 proprietary and Method No. 3 remote station system supervision all require off site supervising services to be employed.

Method No. 4, "Approved local alarm service local alarm service which will cause the sounding of an alarm in accordance with NFIPA 72A" is intended to have the fire alarm panel installed in a constantly attended location to ensure that someone is present to act on any trouble signals and to call the fire department in the event of alarm activation. Whether the signal devices are bells, horns, buzzers, chimes or sirens, they must be heard at all times by someone responsible to act on them. Trouble signals are required to be distinct from alarm signals.

When these supervisory methods were enacted in Subchapter 4 they were developed based upon the provisions for monitoring found in the Uniform Construction Code (UCC) at that time. The UCC was based upon the building code developed by the Building Officials and Code Administrators International with the 1984 edition of the Basic Building Code being in effect when the initial provisions of the Retrofit Code was enacted and the 1987 edition being in effect when the Windowless Story and Basements language was added. Following is the language from those two editions.

II. Windowless stories or basements

In addition to protecting the occupants of the building, the windowless story or basement suppression requirement, N.J.A.C. 5:70-4.7(h), is specifically intended to address firefighter safety. The intent of the provisions is to protect firefighters by providing for early detection, early suppression and the sounding of an alarm. The objective of the code is that a fire suppression system be installed.

Pursuant to N.J.A.C. 5:70-4.7(h) 6.:

"Windowless basements not exceeding 3,000 square feet in area shall be exempt from this automatic suppression requirement, provided a supervised automatic fire alarm system shall be installed in accordance with the New Jersey Uniform Construction Code."

and,

Pursuant to N.J.A.C. 5:70-4.7(h) 7.:

“In windowless basements greater than 3,000 square feet, but not exceeding 10,000 square feet in area, the required suppression system need not be connected to a water supply other than an existing domestic supply if the following conditions are met:

- i. The suppression system shall be provided with a fire department connection, which shall be marked with a sign reading "Basement Area Sprinkler Water Supply"; and
- ii. A supervised automatic fire alarm system shall be installed in accordance with the New Jersey Uniform Construction Code.”

The intent of this provision was to allow the installation of an automatic fire alarm system as an alternative to a fire service water supply or to a suppression system provided there was early detection of a fire and immediate notification of the fire department. There is no firefighter protection provided with an automatic fire alarm system if the system is not supervised to provide for immediate notification of the fire department either through an off site monitoring service or a local alarm sounding in a constantly attended location where someone has the responsibility to call the fire department.

When applying either of these alternatives to the fire suppression system requirement the Fire Official does not apply the supervision section of Subchapter 4 because in both instances the retrofit language specifies that the “...system shall be installed in accordance with the New Jersey Uniform Construction Code.” The system will then be installed and supervised by the standards as specified by the UCC. All editions of which since 1984 provided for either off site monitoring, or the sounding of the alarm in a constantly attended location.

If the responsible owner or agent of the building the windowless story or basement requirement is being applied to does not agree with the alternative to suppression by installing a supervised automatic fire alarm system, then refer them to N.J.A.C. 5:70-4.7(h) and have them install an automatic fire suppression system. In that case there would be no requirement for supervision if the space is small enough that it can be protected by a limited area sprinkler system.

HISTORICAL BACKGROUND

BOCA Basic Building Code/ 1984

SECTION 1718.0 SUPERVISION

1718.1 Fire suppression systems:

Fire suppression systems required for buildings of Use Groups A, E, I, or R shall be supervised by methods 1, 2, 3, or 4 below. All other fire suppression systems shall be supervised by one of the following methods.

1. Approved central station system in accordance with NFiPA 71 listed in Appendix A.
2. Approved proprietary system in accordance with NFiPA 72D listed in Appendix A.
3. Approved remote station system of the jurisdiction in accordance with NFiPA 72C listed in Appendix A.
4. Approved local alarm service which will cause the sounding of an audible signal at a constantly attended location in accordance with NFiPA 72A listed in Appendix A.
5. Locking valves open.

Exceptions

1. Underground gate valves with roadway boxes;
2. Halogenated extinguishing systems;
3. Carbon dioxide extinguishing systems;
4. Dry chemical extinguishing systems; and
5. Limited area sprinkler systems.

1718.2 Fire protection systems:

All required fire protection systems shall be connected to an approved central-station system, proprietary system or remote-station system of the jurisdiction, when approved by the fire subcode official.

Exceptions

1. Fire suppression systems shall conform to section 1718.1
2. Standpipe systems.
3. Fire alarm systems in occupancies in buildings of Use Group R when less than five stories in height.
4. Single station detectors required by Section 1716.3.4.

BOCA Basic Building Code/ 1987

SECTION 1020.0 SUPERVISION

1020.1 Fire suppression systems:

Fire suppression systems required for buildings of Use Groups A, E, I, or R shall be supervised by methods 1, 2, 3, or 4 below. All other fire suppression systems shall be supervised by one of the following methods.

1. Approved central station system in accordance with NFIPA 71 listed in Appendix A.
2. Approved proprietary system in accordance with NFIPA 72D listed in Appendix A.
3. Approved remote station system of the jurisdiction in accordance with NFIPA 72C listed in Appendix A.
4. Approved local alarm service which will cause the sounding of an audible signal at a constantly attended location in accordance with NFIPA 72A listed in Appendix A.
5. Locking valves open.

Exceptions

1. Underground gate valves with roadway boxes;
2. Halogenated extinguishing systems;
3. Carbon dioxide extinguishing systems;
4. Dry chemical extinguishing systems; and
5. Limited area sprinkler systems.

1020.2 Fire protection systems:

All required fire protection systems, other than fire suppression systems, shall be connected to an approved central-station system, proprietary system or remote-station system of the jurisdiction, when approved by the fire subcode official. Fire suppression systems shall conform to section 1020.1

Exceptions

- 1 Standpipe systems.
- 2 Fire alarm systems in buildings of Use Group R when less than five stories in height.
3. Single-station detectors required by Section 1018.3.5.
- 4 Smoke detectors in buildings of Use Group I-3.

Take note that in the UCC the choice to use 'local alarm service' was limited to fire suppression systems. The concept within the code explaining the difference was that fire protection systems were only announcing the existence of the fire to cause evacuation and to cause notification of the fire department for response to suppress the fire.

The UCC also clarified that when the local alarm service was utilized the alarms must sound in a constantly attended location. This is a reflection of what the referenced standard called for to ensure that if a trouble signal occurred the system was repaired and if an alarm signal occurred the fire department would be notified.

It was never the intent of Subchapter 4 to be less restrictive than the UCC beyond extending the 'local alarm service' option to the automatic fire alarm systems for the existing buildings. When requiring compliance with the provisions of Subchapter 4 as it applies to fire protection supervision it is the responsibility of the Fire Official to ensure that the supervision to be provided at any particular location in accordance with the choice of 'local alarm service in accordance with NFPA 72A' includes that the alarm will be heard by someone at all times and that the fire department will be notified whenever an alarm signal occurs. If the Fire Official cannot ensure that will occur, then the local alarm service method is not to be designated.