OFFICIAL FILE COPY
CLERK OF THE BOARD
OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

Memorandum

MIAMI-DADE COUNTY

Date: March 4, 2008

To: Honorable Chairman Bruno A. Barreiro
and Members, Board of County Commissioners

Agenda Item No. 7(F)

From: George M. Burgess
County Manager

Ordinance 08-27

Subject: Ordinance Amending Article III, Chapter 14, Code of Miami-Dade County, Florida, related to Maintenance Requirements for Fire Alarm and Fire Sprinkler Systems

---

Recommendation

It is recommended that the Board approve the attached ordinance amending Article III, Chapter 14 of the Code of Miami-Dade County, Florida, in which Sections 14-66 and 14-67 are added to the Code to require fire alarm and fire sprinkler systems to have maintenance agreements and licensed technicians to respond to malfunctions and alarm conditions. This ordinance will require owners of commercial buildings, where alarm or sprinkler systems are required, to establish a contract with a licensed alarm contractor to provide maintenance and response by a qualified technician.

The purpose of the ordinance is to enhance the reliability of critical life safety systems, primarily fire alarm and fire sprinkler systems, by increasing maintenance and providing a runner service to reset and repair non-functional systems. Improving reliability of life safety systems will significantly reduce the number and length of required fire watch patrols and reduce the number of nuisance alarms.

Scope

This proposed ordinance amendment applies countywide and affects all fire alarm systems and fire sprinkler systems. Not all buildings are required to have fire alarm or sprinkler systems. One and two family dwelling units' fire alarm and fire sprinkler systems are exempt from the provisions of this ordinance.

There would be no difference in its effect between the commission districts, except that the concentration of commercial buildings within a particular district may be different. The alarm and fire sprinkler system users may hire any contractor licensed to provide this service. This ordinance does not require any specific contractor.

Fiscal Impact/Funding Source

There will be no costs borne by the County or municipalities. All expenses will be borne by the building owners, who may pass this cost on to their tenants. There will be no appreciable cost increase, if any, in implementing this program for those occupancies with code compliant maintenance and testing programs and maintenance contracts already in place. However, occupancies without contractual agreements for required maintenance and testing will be affected.

For example, a typical contract for a typical three-story apartment building with 15 dwelling units would cost the owner an average of $200 a month to monitor the system and $77.50 an hour for each service call, or the owner could take the option of an all inclusive full service contract for an average price of $406.88 per month.

Implementation of the service contract requirements must be completed within 545 days after the effective date of this ordinance. The owner will have the option to request an extension of time for compliance from the fire authority having jurisdiction of up to and including 1,095 days.

Track Record/Monitor
Records are kept by the contractor, the building owner and by the local fire jurisdiction. Fire inspectors will request documentation of current certification during their inspection visits (usually annually) to assure continued compliance with the program and with the underlying fire life safety codes. The time necessary for verification of documentation is not material, as it can be just another item on a checklist on the annual inspection.

Background
Currently, without this proposed legislation, there is no effective means to seek to assure that required maintenance and testing of the fire protection system is provided by the user. There are no provisions to require the alarm users to contract for a qualified technician's response. Currently, many systems are not maintained or tested until after the system fails or until after the user is cited with a violation by a fire inspector. Poorly designed or poorly maintained fire alarm and fire sprinkler systems result in more system breakdowns, as well as more nuisance alarms. In fiscal year 2006, the volume of false alarms due to malfunctioning systems was 4,648 in Miami-Dade Fire Rescue Department jurisdiction alone. System breakdowns may result in being required to provide fire watch until the systems are restored. Fire watch is not an effective substitute for properly functioning fire alarm and fire sprinkler systems.

Fire alarm and fire sprinkler systems are complex; they require capable design and installation, and regular maintenance and inspection to assure constant functionality. This amendment will require the licensed contractors to notify the fire prevention authority having jurisdiction promptly of any deficiencies in the system that cannot be remediated in a timely manner, and to notify officials of non-operational systems, so that the fire prevention authority having jurisdiction may require the business to evacuate the building or to provide an approved fire watch. It is essential for the safety of the inhabitants of these buildings that these life safety systems be installed and maintained properly so that they are fully functional at all times to alert the occupants in case of fire and to extinguish or contain a fire.

Alina T. Hudak
Assistant County Manager

Program to Increase Safety and to Reduce False Alarms by Amending the Code of Miami-Dade County and Adding Sections 14-66 and 14-67

Goal: to increase the reliability of fire alarm and fire sprinkler systems once the systems are installed to increase the proper operation of these life safety systems, to reduce false alarms, and to reduce the need for fire watch.

The County Manager charged the Miami-Dade Fire Rescue Department with identifying and implementing a program to substantially reduce the number of fire department employees from conducting fire watch for code-required deficiencies. This ordinance is a key element in the solution, along with already implemented policy revisions. The policy revisions resolve how fire watch is implemented. This ordinance addresses the cause for the fire watch and attempts to eliminate or significantly reduce the number of instances in which fire watch is required. Perhaps the best part of the code amendment portion of the solution is that there are additional benefits to its adoption in addition to reducing the number of instances of fire watch. There is also a higher degree of safety and fewer false fire alarms.

Most false alarms in fire alarm systems are caused by a lack of periodic, scheduled testing and maintenance. In Miami-Dade County Fire Rescue Department's jurisdiction alone, there were 4,638 false alarms in 2006 caused by system malfunctions. This ordinance will directly address the root cause of system malfunctions by requiring that where fire alarms and fire sprinklers are required, that they obtain a contract for periodic testing and maintenance. Currently, the systems could potentially be malfunctioning or even turned- off for as long as a year between annual fire life safety inspections.

What does the fire department do when a fire alarm is activated?

- Fire engines, rescue vehicles, battalion vehicles are all dispatched depending on the type and size of occupancy.
    - A typical apartment building dispatch will start with:
- Fire units are responding in emergency mode, traveling through red lights at intersections, and to some degree, endangering all the vehicles on the road along the response path.
- If notified during response that no fire exists, then one unit responds to assess the information and to make a report.
- Fire units are tied up at the scene determining whether a fire exists when another emergency call might be occurring elsewhere in the response district and response to that emergency must be obtained from a unit further away. This then causes the new unit to travel at emergency mode through traffic for a longer distance, thus endangering even more vehicles and fire personnel and adversely impacting response times.
- At least one fire unit must remain on the scene until someone from the occupancy arrives to reset/repair the fire alarm/sprinkler system and/or until a fire watch is established. It is common for the emrgency contact information to be obsolete or for no one to actually respond.

A functioning, code-compliant fire alarm in accordance with the proposed ordinance does the following:

- Provides warning of fire, allowing occupants the maximum amount of time to exit

- Notifies a monitoring company of a system malfunction, and the monitoring company notifies a technician to respond within 2 hours to reset/repair the system
- Eliminates or significantly reduces the need for code-required fire watch by having all but a few repairs completed within the four-hour window before fire code requires that a fire watch be implemented or the building be evacuated.

Costs:

- While a maintenance contract may seem expensive, there are many mitigating circumstances that may well render the program cost neutral to the alarm user.
- Allows the business to plan and to budget for the expenditure by contracting for a pre-planned testing, maintenance, and repair program rather than unexpected and probably higher- costing repairs at the time of need.
    - If the system failure or malfunction is identified during an annual life safety inspection and repairs are not timely made, there may be additional expenses consisting of civil penalties.
- Businesses with fire alarm and fire sprinklers systems already are incurring some expenses for maintaining the systems. Fire codes require inspections and tests by certified contractors at specific intervals. The fire inspectors require copies of the inspection and testing records during their annual inspection of the building.
    - A typical service contract with a cost per hour service will be billed at $77.50/hour plus material.
    - A system test, typically taking 1.5 to 2 hours without any necessary repairs, would run $116.25 to $155.00.
    - If repairs were needed, then there would be the cost of materials for repairs, plus an additional $77.50 to $155.00 in labor.
- An alarm contractor who knows that he will need to dispatch a runner for a malfunctioning system has an incentive to maintain a healthy system.
- The alarm installing and servicing industry is competitive and alarm users benefit from that competition.
- Reductions in false alarms will result in a savings to the taxpayers by reducing the number of times that alarm response units are dispatched. Each response costs in terms of fuel, wear and tear, and potential liability from the heightened response.

A generous timeframe of a year and half is allowed for occupancies with existing fire alarms to comply with the new requirements with the authority having jurisdiction having the ability to extend that timeframe depending on need.

Tracking compliance will be simple. The fire inspector will check for the contract in the alarm log kept at the panel. In addition, responding emergency fire units will refer non-compliant systems to the Fire Prevention Division.

There will be no financial benefit accruing to fire department personnel as a result of this ordinance.

MEMORANDUM
(Revised)

TO: Honorable Chairman Bruno A. Barreiro and Members, Board of County Commissioners

DATE: March 4, 2008

FROM: R. A. Cuevas, Jr. County Attorney

SUBJECT: Agenda Item No. 7(F)

Please note any items checked.

	"4-Day Rule" ("3-Day Rule" for committees) applicable if raised
✓	6 weeks required between first reading and public hearing
✓	4 weeks notification to municipal officials required prior to public hearing
	Decreases revenues or increases expenditures without balancing budget
	Budget required
	Statement of fiscal impact required
	Bid waiver requiring County Manager's written recommendation
	Ordinance creating a new board requires detailed County Manager's report for public hearing
	Housekeeping item (no policy decision required)
	No committee review

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 7(F)
03-04-08

ORDINANCE NO. **08-27**

ORDINANCE RELATING TO FIRE PREVENTION AND SAFETY; AMENDING ARTICLE III OF CHAPTER 14 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA, SOUTH FLORIDA FIRE PREVENTION CODE; CREATING SECTION 14-66 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA, RELATING TO INSTALLATION, OPERATION, MAINTENANCE, TESTING AND SUPERVISION OF FIRE ALARM SYSTEMS; CREATING SECTION 14-67 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA, RELATING TO INSTALLATION, OPERATION, MAINTENANCE, TESTING, AND SUPERVISION OF SPRINKLER SYSTEMS, FIRE PUMPS, AND OTHER FIRE EXTINGUISHING SYSTEMS; PROVIDING SEVERABILITY, INCLUSION IN THE CODE, AND AN EFFECTIVE DATE

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA:

Section 1. Article III of Chapter 14 of the Code of Miami-Dade County, Florida, is hereby amended as follows:[1]

* * *

>> **Section 14-66. Fire Alarms.**

(1) *Purpose.* The purpose of this section is to seek to obtain proper installation, operation, maintenance, testing, and supervision of fire alarm systems and to seek to obtain compliance with Chapter 633, Florida Statutes, the Florida Fire Prevention Code, the Florida Administrative Code Rule 69A-48 and Rule 69A-60, NFPA 72 (2002 Edition) *National Fire Alarm Code*, NFPA 13 (2002 Edition)

[1] Words stricken through and/or [[double bracketed]] shall be deleted. Words underscored and/or >>double arrowed<< constitute the amendment proposed. Remaining provisions are now in effect and remain unchanged.

Standard for the Installation of Sprinkler Systems and this section.

(2) *Scope of regulation.* The provisions of this section shall apply to all fire alarm systems, except one and two family dwelling unit fire alarm systems, within the geographical area of Miami-Dade County.

(3) *Definitions applicable to Section 14-66 and Section 14-67 of this Code.*

(a) *Alarm Signal.* A signal indicating an emergency that requires immediate action including, but not limited to, a signal indicative of fire.

(b) *Annunciator.* A unit containing one or more indicator lamps, alphanumeric displays, or other equivalent means in which each indication provides status information about a circuit, condition, or location.

(c) *Authority Having Jurisdiction (AHJ).* The chief fire official responsible for approving equipment, materials, an installation, or a procedure.

(d) *Central Station.* A supervising station that is listed for central station service.

(e) *Central Station Fire Alarm System.* A system or group of systems in which the operations of circuits and devices are transmitted automatically to, recorded in, maintained by, and supervised from a listed central station that has competent and experienced servers and operators who, upon receipt of a signal, take such action as required by this Code. Such service is to be controlled and operated by a person, firm, or corporation whose business is the furnishing, maintaining, or monitoring of supervised fire alarm systems.

(f) *Central Station Service.* The use of a system or a group of systems in which the operations of circuits and devices at a protected property are signaled to, recorded in, and supervised from a listed central station that has competent and experienced operators who, upon receipt of a signal, take such

action as required by this Code. Related activities at the protected property, such as equipment installation, inspection, testing, maintenance, and runner service, are the responsibility of the central station or a listed fire alarm service local company.

(g) *Certificate (Certificated).* Posted verification of a systematic program that uses randomly selected follow-up inspections of the certificated systems installed under the program that allows the listing organization to verify that a fire alarm system complies with all the requirements of NFPA 72 (2002 Edition) *National Fire Alarm Code.* A system installed under such a program is identified by the issuance of a certificate and is designated as a certificated system.

(h) *Combination System.* A fire alarm system in which components are used, in whole or in part, in common with a non-fire signaling system.

(i) *Fire Department Notification.* The immediate and automatic notification of the local fire jurisdiction by electronic means in accordance with NFPA 72 (2002 Edition) *National Fire Alarm Code*, that a fire alarm signal has been reported to the fire alarm system.

(j) *Evacuation Signal.* A distinctive signal intended to be recognized by the occupants as requiring evacuation of the building or zone.

(k) *Fire Alarm Control Unit (Fire Alarm Control Panel).* A system component that receives inputs from automatic and manual fire alarm devices and might supply power to detection devices and to a transponder(s) or off-premises transmitter(s). The control unit might also provide transfer of power to the notification appliances and transfer of condition to relays or devices connected to the control unit. The fire alarm control unit can be a local fire alarm control unit or a master control unit.

(l) *Fire Alarm Signal.* A signal initiated by a fire alarm-initiating device such as a manual fire alarm box, automatic fire detector, water flow switch, or other device in which activation is indicative of the presence of a fire or a fire signature.

(m) *Fire Alarm System.* A system or portion of a combination system that consists of components and circuits arranged to monitor and annunciate the status of fire alarm or supervisory signal-initiating devices and to initiate the appropriate response to those signals.

(n) *Listed.* Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

(o) *Master Control Unit (Panel).* A control unit that serves the protected premises or portion of the protected premises as a local control unit and accepts inputs from other fire alarm control units.

(p) *Nuisance Alarm.* Any alarm caused by mechanical failure, malfunction, improper installation, or lack of proper maintenance, or any alarm activated by a cause that cannot be determined.

(q) *Placard (Placarded).* A means to signify that the fire alarm system of a particular facility is receiving central station service in accordance with NFPA 72 (2002 Edition) *National Fire Alarm Code* by a listed central station or listed fire alarm service–local company that is part of a systematic follow-up program under the control of an independent third-party listing organization or a nationally recognized testing laboratory.

(r) *Proprietary Supervising Station.* A location to which alarm or supervisory signaling devices on proprietary fire alarm systems are connected and where personnel are in attendance at all times to supervise operation and investigate all signals.

(s) *Proprietary Supervising Station Fire Alarm System.* An installation of fire alarm systems that serves

contiguous and noncontiguous properties, under one ownership, from a proprietary supervising station located at the protected property, or at one of multiple non-contiguous protected properties, at which trained, competent personnel are in constant attendance.

(t) *Protected Premises*. The physical location protected by a fire alarm system.

(u) *Protected Premises (Local) Fire Alarm System.* A protected premises system that sounds an alarm at the protected premises as the result of the manual operation of a fire alarm box or the operation of protection equipment or systems including, but not limited to, water flowing in a sprinkler system, the discharge of carbon dioxide, the detection of smoke, or the detection of heat.

(v) *Remote Supervising Station Fire Alarm System.* A system installed in accordance with this Code to transmit alarm, supervisory, and trouble signals from one or more protected premises to a remote location where appropriate action is taken.

(w) *Runner.* A fire alarm service technician who is qualified to inspect, test and maintain fire alarm systems in accordance with NFPA 72 (2002 Edition) *National Fire Alarm* Code, who is licensed pursuant to Chapter 489 Part II, Florida Statutes, and who is available at all times to respond to signals at a protected premises.

(x) *Runner Service*. The service provided by a runner at the protected premises, including resetting and silencing of all equipment transmitting fire alarm or supervisory signals to an off-premises location and the restoration or repair of the fire alarm system.

(y) *Signal.* A status indication communicated by electrical or other means.

(z) *Sprinkler system.* For fire protection purposes, an integrated system of underground and overhead piping designed in accordance with fire protection engineering standards. The installation includes

one or more automatic water supplies. The portion of the sprinkler system aboveground is a network of specially sized or hydraulically designed piping installed in a building, structure, or are, generally overhead, and to which sprinklers are attached in a systematic pattern. The valve controlling each system riser is located in the system riser or its supply piping. Each sprinkler system riser includes a device for actuating an alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area.

(aa) *Supervision*. The monitoring of supervisory signals by qualified personnel from an approved monitoring facility in compliance with NFPA 72 (2002 Edition) *National Fire Alarm Code*.

(bb) *Supervisory Signal*. A signal indicating the need for action in connection with the supervision of guard tours, the fire suppression systems or equipment, or the maintenance features of related systems.

(cc) *Supervising Station*. A facility that receives signals and at which personnel are in attendance at all times to respond to these signals.

(dd) *Supervisory Service*. The service required to monitor performance of guard tours and the operative condition of fixed suppression systems or other systems for the protection of life and property.

(ee) *Third Party Verification Organization*. An independent organization providing published standards for the operation and administration of a listed central station service program that is acceptable to the authority having jurisdiction and that operates in accordance with NFPA 72 (2002 Edition) *National Fire Alarm Code* in providing a system for the verification, and listing of fire alarm systems for central station service and which provides a certificate or placard indicating compliance.

(ff) *Trouble Signal.* A signal initiated by the fire alarm system or device indicative of a fault in a monitored circuit or component.

(4) *Runner Service and Service Contracts.* All fire alarm systems shall be required to have in effect at all times a service contract with a licensed fire alarm service contractor, a listed fire alarm service-local company or a listed central station to provide all maintenance, service and testing as required by this Code.

(a) The service contract shall include a provision for runner service available to respond to the protected premises at any and all times within two (2) hours of notification of the runner service of any alarm or supervisory signal, and within four (4) hours of notification of any trouble signal. Existing fire alarm systems shall comply with Section 14-66 (4) of this Code not later than five hundred forty-five (545) days after the effective date of this ordinance. The authority having jurisdiction shall have the authority to extend the time for compliance with Section 14-66 (4) of this Code for existing fire alarm systems to not later than one thousand ninety-five (1,095) days after the effective date of this ordinance if the authority having jurisdiction determines that compliance within five hundred forty-five (545) days is not reasonable under all the facts and circumstances.

(1) The runner shall restore the fire alarm system to complete working order.

(2) In the event that the runner cannot restore the fire alarm system to complete working order, the building, structure, or occupancy may be subject to certain limitations, conditions, and restrictions, including fire watch requirements, as determined by the authority having jurisdiction.

(b) *Posting requirements.* A fire alarm user shall conspicuously post at the main entrance to the alarm user's premises a notice stating (1) the name of an individual or alarm company able and authorized to enter the premises and deactivate the alarm; (2)

emergency telephone numbers by which those individuals can be reached at all times; and (3) the name and address of the alarm user. The information must be kept current and failure to update this information within forty-eight (48) hours of any change constitutes a violation of this section

(c) The runner at all times shall be provided with a key or other means of accessing the fire alarm control panel at any time.

(d) The licensed fire alarm service contractor, listed fire alarm service-local company or listed central station shall provide to the authority having jurisdiction written notification in such form and manner as approved by the authority having jurisdiction not less than thirty (30) days prior to the termination, cancellation, or expiration of the service contract and shall not terminate the services required by the contract for any reason until thirty (30) days after said notification has been received by the authority having jurisdiction.

(5) *Serviceability.* All fire alarm systems shall be maintained fully functional at all times and all deficiencies shall be reported to the authority having jurisdiction in writing in accordance with Florida Administrative Code Rule 69A-48, and shall be repaired not later than four (4) hours after the fire alarm system is out of service or not later than a time determined by the authority having jurisdiction.

(6) *Evacuation signals.* All fire alarm systems providing evacuation signals shall provide audible notification signals at the sound pressure levels required in NFPA 72 (2002 Edition) *National Fire Alarm Code.*

(a) Existing fire alarm systems not meeting a minimum sound pressure level of at least 15 dBA above the average ambient sound level, or 5 dBA above the maximum sound level having a duration of at least sixty seconds, whichever is greater, measured 1.5 meters above the floor in the occupiable area, using the A-weighted scale (dBA), may be required by the authority having jurisdiction to upgrade the audibility of the fire alarm system to meet all of the

requirements set forth in NFPA 72 (2002 Edition) *National Fire Alarm Code.* The minimum sound level in sleeping rooms or areas with all intervening barriers closed shall be 70 dBA. Fire alarm systems not meeting the 70 dBA standard may be required by the authority having jurisdiction to upgrade the audibility of the system to meet the requirements set forth in NFPA 72 (2002 Edition) *National Fire Alarm Code.*

(b) If the authority having jurisdiction reasonably believes that an existing fire alarm system does not provide adequate sound pressure levels to accomplish evacuation notification then the authority having jurisdiction, may, in the discretion of the authority having jurisdiction, require that the user of the existing fire alarm system provide to the authority having jurisdiction a signed, written report in such form and manner as approved by the authority having jurisdiction from a fire alarm contractor licensed to service fire alarm systems in Miami-Dade County setting forth the sound pressure levels (dBA) throughout the building. The fire alarm system user shall provide the signed, written report to the authority having jurisdiction not later than sixty (60) days after receipt of written notification from the authority having jurisdiction to provide the signed written report.

(7) *Annunciators and Fire Alarm Control Units.* All protected premises shall be required to have the fire alarm control unit or a remote annunciator located in the building lobby near the main entrance, or, if there is no main entrance or lobby, in a common area where the fire alarm control unit or remote annunciator can be seen and heard by the occupants of the building, structure, or occupancy, or shall be located in another location approved by the authority having jurisdiction.

(a) Existing remote supervising station fire alarm systems which are otherwise in compliance with this section may be exempted from the provisions of Section 14-66 (7) of this Code by the authority having jurisdiction when it is determined by the authority having jurisdiction that a reasonable

degree of safety is provided without the addition of a remote annunciator.

(8) *Supervising Stations.* All supervising stations shall be listed by a third party verification organization acceptable to the authority having jurisdiction.

(9) *New Installations.* All new fire alarm systems and all new sprinkler systems with supervision or emergency forces notification shall meet the requirements for central station service or proprietary supervising station fire alarm systems and shall be either a certificated or placarded central station fire alarm system as set forth in NFPA 72 (2002 Edition) *National Fire Alarm Code* or a listed proprietary supervising fire alarm system.

(a) Verification of compliance with the requirements of this section with respect to the installation of new fire alarm systems, as implemented in accordance with the applicable code(s), specifications, or other criteria applicable to the specific installation, shall be certified by a third-party verification organization acceptable to the authority having jurisdiction and shall be evidenced by a certificate or placard.

(b) The user of all new fire alarm systems and new sprinkler systems with supervision or emergency forces notification shall at all times conspicuously post a certificate or a placard on or within thirty-six (36) inches of the fire alarm control unit, as set forth in NFPA 72 (2002 Edition) *National Fire Alarm Code.*

(10) *Upgrades, renovation, additions, repairs, or modernization.* Any upgrade, renovation, addition, repair, or modernization of any existing fire alarm system which includes the replacement of the master control unit with anything other than the exact make and model as the existing master control unit or which includes the addition of a fire alarm control panel which will provide or replace any of the functions of the existing master control unit, except notification, shall be required to have the complete fire alarm system in compliance with all the requirements for new installations. If an upgrade, renovation, addition, repair, or modernization includes greater than one-half of

the entire fire alarm system, then the entire fire alarm system shall be required to be in compliance with Section 14-66 (9) of this Code.

(11) *Proprietary Supervising Station Fire Alarm Systems.*

(a) All proprietary supervising station fire alarm systems shall be listed by a third party verification organization.

(b) Existing proprietary supervising station fire alarm systems shall comply with subsection (11) (a) hereinabove not later than five hundred forty-five (545) days after the effective date of this ordinance.

(12) *False Alarms, Inoperable Systems, Remedy of Existing Systems*. Any existing fire alarm system determined by the authority having jurisdiction to be inoperable for any reason, unless the system has been reported to the authority having jurisdiction and is in the process of actively being repaired, or a fire alarm system which has caused more than four nuisance alarms within any three hundred sixty-five (365) day period, shall be required to upgrade the fire alarm system to be in compliance with the new fire alarm requirements set forth in NFPA 101 (2003 Edition) *Life Safety Code* and Section 14-66 (9) of this Code.

Section 14-67. Sprinkler Systems, Fire Pumps, and Other Extinguishing Systems.

(1) *Purpose.* The purpose of this section is to seek to obtain proper installation, operation, maintenance, testing, and supervision of sprinkler systems, fire pumps, and other fire extinguishing systems, and to seek to obtain compliance with Chapter 633, Florida Statutes, the Florida Fire Prevention Code, the Florida Administrative Code Rule 69A-48 and Rule 69A-60, NFPA 72 (2002 Edition) *National Fire Alarm Code*, NFPA 13 (2002 Edition) *Standard For The Installation Of Sprinkler Systems*, NFPA 13R (2002 Edition) *Standard For The Installation Of Sprinkler Systems In Residential Occupancies Up To And Including Four Stories in Height*, and this section .

(2) *Scope of regulations.* The provisions of this section shall apply to all sprinkler systems, except one and two family

dwelling unit sprinkler systems, within the geographical area of Miami-Dade County.

(3) *New Sprinkler Systems.* All new sprinkler systems shall be supervised in accordance with NFPA 72 (2002 Edition) *National Fire Alarm Code*,

(4) *Compliance with Section 14-66.* Sprinkler systems, fire pumps and other extinguishing systems required to be supervised in accordance with NFPA 72 (2002 Edition), by any applicable code, or this section shall be installed, maintained, serviced and operated in accordance with all applicable codes and standards and Section 14-66 of this Code. <<

Section 2. If any section, subsection, sentence, clause or provision of this ordinance is held invalid, the remainder of this ordinance shall not be affected by such invalidity.

Section 3. It is the intention of the Board of County Commissioners, and it is hereby ordained that the provisions of this ordinance, including any sunset provision, shall become and be made a part of the Code of Miami-Dade County, Florida. The sections of this ordinance may be renumbered or relettered to accomplish such intention, and the word "ordinance" may be changed to "section," "article," or other appropriate word.

Section 4. This ordinance shall become effective ten (10) days after the date of enactment unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

PASSED AND ADOPTED: **March 4, 2008**

Approved by County Attorney as to form and legal sufficiency:

Prepared by:

Peter S. Tell

Memorandum

MIAMI-DADE COUNTY

Date: March 4, 2008

Supplement to Agenda Item No. 7(F)

To: Honorable Chairman Bruno A. Barreiro and Members, Board of County Commissioners

From: George M. Burgess
County Manager

Subject: Supplemental Information to Ordinance Amending Article III, Chapter 14, Code of Miami-Dade County, Florida, related to Maintenance Requirements for Fire Alarm and Fire Sprinkler Systems

---

This supplemental report is provided as a response to questions raised by Board Members at the January 17, 2008 Health and Public Safety Committee. The proposed amendments to Chapter 14 are intended to ensure the heath and public safety of the residents in Miami-Dade County that occupy residential and commercial buildings, and to create an enforcement structure that would address increasing number of alarm system failures due to a lack of maintenance. More than 5,000 system failures have been reported or discovered through annual inspection of these buildings. There is inherent risk to lives and safety when fire protection systems fail to perform as designed. A preventive program will dramatically reduce these risks.

What is the cost for a typical business to achieve compliance with the new code requirements?

The Miami-Dade Fire Department (MDFD) has surveyed approximately 100 alarm contractors within its jurisdiction, and has confirmed that these companies offer a variety of contracting options that will meet the proposed requirements of this ordinance. The contracts generally fall into two categories: full service agreements and basic service agreements. In the case of a full service agreement, a company would assess the size and type of alarm system, to determine the level of risk for the system, and enter into a scheduled service agreement for a price based on that assessment. For a basic service agreement, the company would offer a fee schedule for the variety of services they offer and enter into a service agreement to which that pre-negotiated price list would be attached.

Costs for services already required by code, such as monitoring or the cost of the annual alarm report, may be included in the service agreement at no additional expense. In addition, the response time for technicians under contract to respond to alarm malfunctions calls is typically less than 2 hours. In most cases, malfunctions can be corrected on the call and significantly reduce the need for a firewatch order.

Sample Costs for Service Agreements:

For a typical three story apartment building with five apartments per floor, or for a retail business where an alarm system is required by code, approximate costs for service agreements are:

- For a full service (turn-key system) ..... $4,800.00 per year
- For a basic service agreement ..... $0.00 per year
  (There would only be a cost if additional service is required; those costs are pre-negotiated as part of the agreement).

With a service agreement, correcting problems with the alarm system at the same types of buildings referenced above would cost (approximately):

- With a full service agreement $0.00
  (May exclude cost for a negotiated deductible)

- With a basic agreement, assuming two service calls due to malfunction and maintenance provided:

  Sample Rates:
  Technician - 8hrs @ $77.50/hr
  Parts estimate $1,500.00

  Service Cost $2,120.00
  Potential fines for two malfunction alarms $1,250.00
  Total Cost $3,370.00

Without a service contract, assuming two service calls due to a malfunction, without maintenance provided:

Sample Rates:
Technician – 8hrs @ $150.00/hr
Parts estimate $1,500.00

Service Cost $2,700.00
Potential fines for malfunction $1,250.00
Total Cost $3,950.00

If firewatch is required, costs can significantly increase. Firewatch for out-of-service alarm required by code:
2 firewatchers @ $20.00/hr x 24hrs x 15 days $14,400.00

What is the availability of "pay as you go" contracts where a company can enter into an agreement for free and have a cost per service agreement?

The majority of the companies surveyed offer basic service agreements that do not require any up-front cost. The alarm owner would be provided with a fee schedule for services and would agree to use the contractor exclusively to service his/her system.

Clarify what it means to "enter into a contract" as indicated in page 12 of the package.

Section 14-66(4) of the ordinance states, "all fire alarm systems shall be required to have in effect at all times a service contract with a fire alarm service contractor…." For purposes of this ordinance, a service contract means a signed agreement with a licensed alarm contractor in the form of a full service agreement or a basic cost-per-service agreement.

What is the nature of problem in buildings with false alarms?

A false alarm is one symptom of a poorly maintained or failing alarm system. In 2007, MDFD responded to over 12,000 false alarms, of these, over 5,000 were due to equipment failure. In the same year, MDFD ordered firewatch for over 300 occupancies. Other types of failures range from lightning or power surge damaging the alarm panel, entire alarm zone disabled or inoperative, intentional disabling of the power supply and back-up and other system failures that did not originate an alarm signal. Most of these are discovered on annual inspections or via complaint. In these cases the occupants are not aware that there is no system to warn them of a danger.

Assistant County Manager