



INTRODUCTION

The City of Myrtle Beach Fire Department developed the “After the Inspection” booklet as a fire prevention maintenance tool for the City’s Business Community. It provides an opportunity for the sharing of information that will reduce hazards and enhance emergency incident response.

Your participation in a fire prevention maintenance program for your business will provide for a safe environment for the people who work in your building and the customers you serve.

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REPORTING AN EMERGENCY

DIAL 911 IN AN EMERGENCY

- Stay calm; tell the operator the kind of emergency you are reporting: a fire, heart attack, injury, etc.
- Tell the operator your address and the exact location of the emergency in your building
- Stay on the phone; do not hang up until you are told to do so by the operator.

If possible, have someone meet and direct emergency responders.

LIFE SAFETY SYSTEMS

FIRE PROTECTION SYSTEMS AND APPLIANCES

The Fire Official shall designate the type and number of fire appliances to be installed and maintained in and upon all buildings and premises, other than one and two family dwellings. Such appliances shall be of a type suitable for the probable class of fire associated with such premises.

In occupancies of a hazardous nature in the judgment of the Fire Official, or where special hazards exist in addition to the normal hazard of the occupancy, or where access for fire apparatus is unduly difficult in the judgment of the Fire Official, additional safeguards may be required by the Fire Official and such safeguards may consist of one or more of the following:

- Automatic fire detection system
- Fire protective signaling systems
- Automatic fire extinguishing system
- Standpipe systems
- Portable or fixed fire extinguisher(s)
- Fire blankets
- Protective pull station covers

Fire protection extinguishing apparatus required under this section shall be installed in accordance with the applicable NFPA standards.

FIRE ALARM SYSTEMS

Annual Inspection Requirement:

Fire alarm systems are required to have an annual certification inspection. This certification indicates that all devices within the system are functioning properly. Any system that has defective devices cannot be issued an annual certification until such time as the devices have been repaired or replaced.

Note: Due to the typical design of multi-story, multi-family buildings within Myrtle Beach, fire alarm system devices are subjected to extreme exposure to the environment. Due to this, fire alarms in these types of buildings subsequently

require more than average maintenance and often replacement of devices damaged by exposure.

Building Maintenance and Fire Alarm Systems:

The following types of building maintenance can be damaging to fire alarm devices unless they are protected.

- **Building Pressure Washing** – This forces water into fire alarm devices, conduit, and wiring causing them to false alarm and contributes to corrosion failures which in turn cause false alarms. The fine water mist can imitate smoke particles and activate smoke detectors causing a false alarm.
- **Building Sand Blasting** – This can actually damage devices as well as force sand into the components. The dust produced, imitates smoke activating smoke detectors and causing a false alarm.

Note: When this type of work is going to be performed, the devices should be protected. Each device should be covered up, so as to prevent damage and false alarms.

Property management should place someone on scene during this period and place the fire alarm system on test/service so that any accidental alarms are not transmitted as false alarms. The individual on scene shall remain on the premises to provide for calling the fire department in the event of an actual emergency.

Placing A Fire Alarm On Test And Fire Department Notification:

To place a fire alarm system on test/service, an authorized individual with proper codes calls the central monitoring station, which monitors the fire alarm for any activation. When the work is completed for the day, contact is again made with the central monitoring service, to take the fire alarm off of test. **Note: dedicated personnel must perform a fire watch while the fire alarm system is on test, an hourly log of the fire watch must be maintained on the premise.**

SMOKE DETECTORS

Smoke detectors are required in all residential occupancies. All residential occupancies shall have at least one listed smoke detector located outside each sleeping area. If this smoke detector is wired into the buildings electrical system it shall be a battery backup type detector.

- **Single Station Smoke Detector** means a detector that is not connected into a buildings fire alarm system; it is a separate device unto itself.
- **Multiple Station Smoke Detectors** means a detector that is a single station detector that is inter-connected with other single station detectors so that activation of one activates all of the inter-connected detectors.
- **System Detector** means a detector that is hooked into a total building fire alarm system which has a building fire alarm panel, manual pull stations, horn strobes, etc..

TESTING AND MAINTAINING SMOKE DETECTORS

- Smoke detector batteries should be supplied with new batteries on a bi-annual basis.

(CHANGE YOUR CLOCK, CHANGE YOUR BATTERY)

- Guest room smoke detectors should be inspected for proper operation prior to any room being occupied. Guest rooms shall not be occupied without a properly working smoke detector.
- Smoke detectors should be tested with an approved aerosol type “testing smoke” on a bi-annual basis.
- Smoke detector batteries should be tested every (6) months by turning off the electrical breaker, if wired into the building electrical system, and pushing the test button located on the detector itself.
- A written log of these tests should be kept on premises indicating the date and result of these tests for each unit. A copy shall be available to the Fire Marshal for his/her inspection and evaluation, when requested.

Requirements for Long Term Rentals:

- At the time the unit is rented to the occupant, the Smoke Detectors shall be in working order with brand new batteries installed.
- From that point on the occupant is responsible for installing new batteries, testing and reporting faulty detectors to his rental agent.

Approved single station or multiple-station smoke detectors should be installed in every dwelling and every dwelling unit within an apartment house, condominium or townhouse, and every guest room or sleeping room in a motel, hotel or dormitory. Where more than one detector is required to be installed within an individual dwelling unit, the detectors shall be wired in such a manner that the activation of one alarm will actuate all the alarms in the individual unit.

In dwelling units, a smoke detector should be mounted on the ceiling or wall at a point centrally located in the corridor or area giving access to each group of rooms used for sleeping purposes. Where the dwelling or dwelling unit contains more than one story, detectors are required on each story including basements, but not including uninhabitable attics, and shall be located in close proximity to the stairway leading to the floor above.

In dwelling units, smoke detectors should be hardwired into an AC electrical power source and shall be equipped with a monitored battery backup in all new construction. A monitored battery power source shall be permitted in existing construction.

Periodic Inspections and Tests

The owner or his authorized representatives shall have qualified/licensed person's conduct inspections and field tests of fire suppression, protective signaling, automatic fire detection and any other fire protection systems, devices, and equipment in accordance with the requirements of the fire official and applicable NFPA standards. A complete written record of all tests and inspections, required by this section, should be maintained on the premises by the owner or occupant in charge of said premises. Accurate logs shall

be maintained, indicating the number, location and type of device tested. Any defects, modification or repair shall be logged and the log shall be available to the fire official when requested for inspection and evaluation. The fire official shall be notified at least 48 hours before any test required by this section.

All smoke detectors shall be inspected in place at 6-month intervals to identify missing detectors, detectors with impeded smoke entry, dirty detectors and detectors no longer properly located because of occupancy or structure changes. Additionally, a test shall be performed at 12-month intervals to assure that each smoke detector is operative and produces the intended response by causing the detector to initiate an alarm at the installed location with smoke or other aerosol acceptable to the manufacturer, to demonstrate that smoke can enter the chamber and initiate an alarm.

FIRE EXTINGUISHERS

- Provide a minimum of one **2A10BC** classification portable fire extinguisher. Actual classification size and number of extinguishers required will depend on the type of hazard and size of the building.
- Fire extinguishers are to be within 75' travel distance from any area of the building. Each floor level is required to have fire extinguishers available within 75' travel distance without traversing stairs.
- Maintain fire extinguishers so that they are **visible** and **accessible**, not blocked by storage, equipment, plants, etc.

Inspection:

Monthly inspections are required for the following:

- Fire extinguisher is in its proper location.
- Fire extinguisher is not damaged and security seal is intact.
- Pressure gauge is reading within the proper range.
- Invert extinguisher to feel dry chemical powder move freely.
- Fire extinguisher is within its required annual maintenance.

Maintenance:

- Maintenance is required on an annual basis by a SC State Licensed Fire Extinguisher Company.
- Every six years stored pressure fire extinguishers must be emptied and a thorough inspection made of the interior of the pressure cylinder. Inspection company must apply a (6) year maintenance sticker to the cylinder.
- Every (12) years stored pressure fire extinguishers must be emptied and subjected to a hydrostatic pressure test of the pressure cylinder.

Fire Extinguisher Cabinets:

Fire extinguisher cabinet use is encouraged to protect fire extinguishers from the environment as well as to deter vandalism.

- These cabinets may have an unlocked door or a locked breakable access system.
- Where a breakable access system is used with glass breaking devices these glass-breaking devices must be in place at all times.
- Oceanfront properties should invest in fire extinguisher cabinets to protect their fire extinguishers from the corrosive environmental conditions.

Commercial Grade (Metal Hardware) Vs. Disposable (Plastic Hardware)

- Commercial grade fire extinguishers are equipped with metal top hardware and can be properly maintained and recharged.

Disposable fire extinguishers are equipped with plastic top hardware and cannot be maintained or recharged. They are a one-time use only, **and these types of extinguishers are not authorized for service in a commercial building**

Out of Service Fire Alarms

Buildings in which the fire alarm is out of service shall be required to provide 24-hour fire watch security. Security personnel shall walk the building every hour so as to provide an adequate fire-watch. The Fire Marshal shall be notified of all fire-watch actions.

The purpose of any fire watch is to detect a fire, should it occur, and wake the building occupants nearest the fire and to notify **9-1-1** of the emergency.

False Fire Alarms

Periodic Inspections and Tests shall be required to ensure that all fire alarms are maintained in good/reliable working order.

- The owner or business representatives shall have qualified persons conduct inspections and field tests of fire suppression, protective signaling, automatic fire detection and any other fire protection systems, devices and equipment in accordance with the requirements of the Fire Marshal and applicable NFPA Standards
- The owner or occupant in charge of said premises shall maintain a complete written record of all tests and inspections, required by this section, on the premises. Accurate logs shall be maintained, indicating the number, location and type of device tested. Any defects, modification or repair shall be logged and the log shall be available to the Fire Official when requested for his inspection and evaluation. The Fire Official shall be notified at least 48 hours before any test required by this section.
- All protective signaling systems shall be maintained, periodically inspected and tested in accordance with the applicable NFPA Standards.

Summary: At 12-month intervals: Remote annunciators, audible and visible alarm-notification appliances, primary and secondary power supplies, all control panel functions, gate supervisory switches, manual fire alarm boxes, sprinkler supervisory devices, voice/alarm signaling system, two way telephones for firefighters, circuit interfaces, transmitters, and water-flow actuated devices shall be inspected and tested; these test shall be conducted by qualified state licensed personnel only.

FIRE PUMPS

High-rise buildings are required to have fire pumps that are capable of supplying the required fire flow and at the required pressure during a fire emergency. Some buildings may have been built before this was a requirement and do not have fire pumps.

Testing and Maintenance

Fire pumps are required to have an annual flow and performance test performed by a SC State Licensed Company.

A copy of the test report shall be forwarded to the authority having jurisdiction for review to determine if any and what deficiencies exist and need correction. A copy of this report shall also be maintained at the location of the protected property.

Self-Inspections, as outlined by NFPA 25

Summary of Fire Pump Inspection, Testing, and Maintenance

<u>Item</u>	<u>Activity</u>	<u>Frequency</u>
Pump house, heating	Inspection	Weekly
Ventilating louvers	Inspection	Weekly
Fire pump system	Inspection	Weekly
Pump operation,		
• No-flow condition	Test	Weekly
• Flow condition	Test	Annually
Hydraulic	Maintenance	Annually
Mechanical transmission	Maintenance	Annually
Electrical system	Maintenance	Varies
Controller, various components	Maintenance	Varies
Motor	Maintenance	Annually
Diesel engine system, various		
• components	Maintenance	Varies

Fire Pump Impairments

The inspection, testing, and maintenance of fire pump assemblies can involve or result in a system that is out of service.

Impairments to systems shall be reported to the Fire Official. The Fire Department Connection shall be tagged as to the type of impairment. The Fire Official shall be notified when the impairment has been repaired and system is restored to service.

Notification to Supervisory Service

To avoid false alarms, where a supervisory service is provided, the alarm receiving facility always shall be notified by the owner or designated representative as follows:

- (a) Before conducting any test or procedure that could result in the activation of an alarm, and
- (b) After such tests or procedures are concluded.

The Fire Official shall be notified that the system is being tested. The date, time, and expected duration of the testing shall be provided.

Inspection

The purpose of inspection is to verify that the pump assembly appears to be in operating condition and is free from physical damage.

The pertinent visual observations specified shall be performed weekly.

Weekly Inspection Observations

- Pump House Conditions
- Heat adequate, not less than 40 degrees F. (For pump room with diesel engine without engine heaters)
- Ventilating louvers free to operate

Pump System Conditions:

- Pump suction and discharge, and bypass valves fully open
- Inspect for piping leaks
- Suction line pressure gauge reading normal
- System line pressure gauge reading normal

Electrical System Conditions:

- Controller power light (power on) illuminated
- Transfer switch normal pilot light illuminated
- Isolating switch closed – standby (emergency) source
- Reverse phase alarm pilot light off or normal phase rotation pilot light on
- Oil level in vertical motor sight glass normal

Diesel Engine System Conditions:

- Fuel tank two-thirds full
- Controller selector switch in AUTO position
- Batteries (2) voltage readings normal
- Batteries (2) charging current readings normal
- Batteries (2) power lights on or battery failure (2) power lights off
- All alarm power lights off
- Engine running time meter reading
- Oil level in right angle gear drive normal
- Crankcase oil level normal
- Cooling water level normal
- Electrolyte level in batteries normal

- Battery terminals free from corrosion
- Water-jacket heater operating

Note: Visual indicators, other than power lights, shall be permitted to be used for the same purpose.

Testing

- Purpose

The purpose of testing the pump assembly is to ensure automatic or manual operation upon demand and continuous delivery of the required system output. An additional purpose is to detect deficiencies of the pump assembly not evident by inspection.

- Weekly Tests

Qualified operating personnel shall be in attendance during the weekly pump operation.

A weekly test of electric motor-driven pump assemblies shall be conducted without flowing water. This test shall be conducted by starting the pump automatically. The pump shall run a minimum of 10 minutes. Exception: The circulating valve or pressure relief valve shall be permitted to discharge water.

A weekly test of diesel engine-driven pump assemblies shall be conducted without flowing water. This test shall be conducted by starting the pump automatically, and the pump shall run a minimum of 30 minutes. Exception: Where installed, the circulating relief valve shall be permitted to discharge water.

The automatic weekly test timer shall be permitted to be substituted for the starting procedure

The pertinent visual observations or adjustments specified shall be conducted while the pump is running.

Weekly Test Procedure

Pump System Procedure

- Record system suction and discharge pressure gauge readings
- Check pump packing glands for slight discharge
- Adjust gland nuts if necessary
- Check for unusual noise or vibration
- Check packing boxes, bearings, or pump casing for overheating
- Record pump starting pressure

Electrical System Procedure

- Observe time for motor to accelerate to full speed
- Record time controller is on first step (for reduced voltage or reduced current starting)
- Record time pump runs after starting (for automatic stop controllers)

Diesel Engine System Procedure

- **Observe time for engine to crank**
- **Observe time for engine to reach running speed**
- **Observe engine oil pressure gauge, speed indicator, water, and oil temperature indicators periodically while engine is running. Record any abnormalities**

Check heat exchanger for cooling water flow

FIRE DEPARTMENT CONNECTION (FDC)

A fire department connection is a device whereby the fire department hooks up its hose to supply water to, or boost water pressure to the particular fire protection system within the building.

Inspection Requirements

- These devices are annually inspected by the companies that perform standpipe, sprinkler, and fire pump inspections. However, it is recommended that the property owner visually inspects the FDC on a weekly basis to ensure that it is not impaired in any way.

General Requirements

- They must be readily visible from the avenue of approach by fire department apparatus during both daylight and nighttime periods.
- They must not be blocked, or obscured by shrubbery, fences, signs, etc.
- Where more than one fire department connection serves the same property, all fire department connections shall be clearly marked and the area of the building they serve must be indicated on the sign.

An approved sign mounted on the street front or on the side of the building, must identify all fire department connections. Such sign shall have the letters FDC at least 6 inches high and words, in letters 2 inches high, or an arrow to indicate the location. All signs are subject to approval by the Fire Official.

SPRINKLER SYSTEMS

Fire sprinklers are the second most effective life safety piece of equipment within a building. They are designed to contain a fire long enough for occupants to safely evacuate a building, thereby avoiding loss of life and injury, as well as attempt to extinguish the fire.

The success rate of fire sprinkler systems is 99 %. The one percent failure rate is due to lack of maintenance, and systems being shut down.

Requirements:

Painting: It is recommended that piping and valving, located within sprinkler rooms, be painted red with a corrosion resistant metal paint from the floor to a height of (8) feet.

Note: Painting of Sprinkler heads is not allowed by code. Painted sprinkler heads must be replaced with new heads of the same type, design, and rating.

Inspections: Fire sprinkler systems are required to be inspected on an annual basis to insure that the system is in operable condition and is prepared to perform as intended. This inspection is required to be performed by a licensed sprinkler company. A COPY OF THE CURRENT INSPECTION REPORT SHALL BE MAINTAINED ON PROPERTY AT ALL TIMES.

The sprinkler company performs the inspection and sends a copy of the inspection report to the fire department. Any deficiencies that are noted are reviewed by the fire department. A written list, of those that are required by code to be repaired, is prepared for the property management company. (All deficiencies must be repaired within 30 days of receipt of the written order)

Fire sprinkler systems may be supplied by city water pressure only or they may also have a fire pump to boost pressure depending on the type of occupancy and when the system was installed.

All sprinkler systems will have a **Fire Department Connection (FDC)**. Fire engines will connect fire hose into this device in order to boost system pressure for optimal sprinkler performance.

Water based extinguishing systems shall be inspected, tested and maintained in accordance with the requirements of NFPA 25.

STANDPIPE SYSTEMS

A **Fire Standpipe System** is a riser (pipe) or series of risers with fire hose outlets that allow firefighters to connect their fire hose to floor-valves, instead of dragging long sections of hose into a high- rise building.

Standpipes are sometimes equipped with their own hose for the occupants to use. This practice is becoming less common, as the desire to first get people away from harm is of greater importance than having them trying to fight the fire. Many people are either not capable of or have no idea how to go about using the equipment.

Standpipes are often designed to also supply the sprinkler system if the building is so equipped. This is called a **Combination System**.

Some standpipes are **Dry Standpipes**, meaning they have no water until such time as the fire department arrives to hook into them.

Some standpipes are **Wet Standpipes** meaning that they have water under pressure at all times. A **Combination System** would be a wet system.

All standpipes have a device called a **FIRE DEPARTMENT CONNECTION** or **FDC** where the fire department hooks in to supply water or boost pressure.

In combination systems this is often to boost the pressure to upper floors and make sure fire sprinklers are operating within optimum pressure. Because of this, it is imperative that these fire department connections are not hidden from view, or obstructed, and readily identified with a sign.

Inspection, Testing, and Maintenance

Inspection, Testing, and Maintenance Service of a standpipe system consists of an annual inspection provided by a SC Licensed Company.

Required Standpipe Maintenance

Lubricating of fire department connection swivels, globe valve, valve stems and globe valve caps.

Inspection Companies will perform an inspection and make a report of deficiencies, which shall be forwarded to the fire department. The fire department will review these inspection reports and notify the building manager, in writing, as to the deficiencies that are in need of correction. An additional 30 days shall be given for correcting of any deficiencies.

Hydrostatic and Flush Test: Every (5) years, all combination or dry standpipes are required to undergo a hydrostatic pressure test and flow test.

In the hydrostatic test the system is pressurized to 200 lbs to see if it has any leaks that would compromise its use in an actual emergency.

In the flow test the system is charged with water and any scale or debris is flushed out so as to eliminate any obstructions that might clog firefighting nozzles, as well as to determine if the required flow is capable of being achieved.

Periodic Inspections and Tests

The owner or his/her authorized representative shall have qualified persons conduct inspections and field test of fire suppression, protective signaling, automatic fire detection and any other fire protection systems, devices, and equipment in accordance with the requirements of the Fire Official and applicable NFPA standards.

All combination or dry standpipes shall be hydrostatically tested at a pressure of 200 psi or at least 50 psi in excess of the normal operating pressure, when the normal pressure is in excess of 150 psi, for one hour at intervals of not more than five years.

EGRESS

EXITS & EXIT LIGHTS

Exits and the path of exit travel, or the “means of egress” must not be obstructed in any manner and must remain free of any material, including storage of chairs, children’s booster seats, or service carts.

- Exit doors must be easily recognizable as exit door. Mirrors or similar reflecting materials cannot be used on exit doors. Curtains, drapes, decorations, and/or similar materials **cannot** conceal exit doors.
- **Only one locking device is allowed on any exit or exit access door.** Exits must be provided with **panic hardware**. Panic hardware incorporates an unlatching device, with the activation portion extending across at least half the width of the door leaf.

Exception: In occupancies with an occupant load of 100 or less panic hardware is not required.

- Exit doors must not be locked, chained, barred, latched, bolted, or otherwise rendered unusable. Manually operated edge or surface-mounted flush bolts and surface bolts or any other type of device that may be used to close or restrain the door other than by operation of the locking device cannot be used
- All commercial occupancies are required to have exit lights. In addition, if the building is not equipped with an emergency generator the exit lights shall be equipped with battery back-up.
- Exits must be properly marked and visible from any direction. Readily visible exit signs must mark all access ways to guide occupants to exits when the exit is not immediately visible to the occupant

Bulbs

Commercial exit signs shall be illuminated at all times. It is necessary that the bulbs be replaced periodically. Consult your local electrical supply house for replacement bulbs.

Operation/Maintenance

- There are two bulbs per unit so that if one bulb burns out there will still be one bulb to light the sign until the other is replaced. On battery backed up units there will be a test button to push. Pushing this button simulates a power failure and the battery bulbs should come on. Failure of the lights to come on most likely indicates a bad battery pack.
- Batteries can be very expensive for these devices. As time goes by improvements and model changes take place. Often times the purchase of a new exit sign is cheaper than replacing the battery.

If exit signs are to be replaced only a SC Licensed Electrician shall replace them.

EMERGENCY LIGHTING

All occupancies are required to have emergency egress lighting. If your building is equipped with an emergency generator, then your emergency lighting runs off of this generator.

If your building is not equipped with an emergency generator, then your building has emergency light sets that are powered by batteries and are standing by in the event of a power failure.

- In most cases a separate emergency source of illumination (**Emergency lights**) is required to allow for safe exiting in the event normal lighting fails.
- These devices are required to be located in such a manner that they light the egress paths so the occupants can safely find their way to an exit door or exit stairwell.

Operation

Emergency light sets are equipped with a storage battery hooked to two floodlight bulbs. The fixture also has a “trickle charger” that is connected to the house power. This keeps the battery at optimum charge until needed. In the event of a power failure, the device senses the loss in power to its circuits and activates the floodlights hooked to the battery. These devices are not intended to last for more than an hour and thirty minutes, enough time for occupants to safely evacuate the building and for firefighters to see where they are going.

Each emergency lighting set is equipped with a test button so that they can be tested for proper operation. Pushing the test button simulates a power failure and the lights should come on.

Replacement of Emergency Lighting Units

Batteries for these devices can be expensive and cost more than a new fixture itself. Often time it is cheaper to buy a new fixture than to purchase a new battery.

BUILDING SYSTEMS AND STORAGE

COMMERCIAL KITCHENS

Protection of commercial kitchen cooking operations

Approved automatic fire-extinguishing systems, with a ventilating hood and duct system, must be provided for the protection of commercial-type cooking equipment that produces “grease laden vapors”. **All kitchen hood suppression systems (existing and new) shall meet the requirements of UL 300.**

Significant fire loss and damage can occur from a restaurant kitchen fire due to:

- Automatic fire-extinguishing (hood) system not being serviced, therefore not operating properly.
- Excessive build-up of grease in the exhaust duct.
- The system discharge nozzles moved up or to the side (by a kitchen employee) leaving the appliances without proper protection.

Maintenance Reminders

- Check nozzle caps to make sure they are in place.
- Check to see if nozzles are still aiming at the surfaces they are designed to protect.
- Check to make sure that the grease is not accumulating on fusible links and nozzles.
- Check to see if any new cooking equipment has been added or existing equipment relocated which may require adding nozzles or the relocation of existing nozzles.
- Check to make sure manual actuators are not obstructed.
- **Check to make sure that the system has been serviced within the past 6-months, if not done so, maintenance shall be scheduled immediately.**

Automatic fire extinguishing systems are to be serviced every six months by SC Licensed Contractors only!

Hoods, grease-removal devices, fans, ducts, and other accessories are to be cleaned at intervals necessary to prevent the accumulation of grease.

Additionally, a minimum of one K-Class Fire Rated Extinguisher shall be mounted and available within 30 feet travel distance of all cooking equipment.

EMERGENCY GENERATORS

The reason for an emergency generator is to supply emergency power to the life safety systems in the event of power failure.

Generators are required to supply emergency power to the following:

- Emergency egress lighting
- Exit lights
- At least one elevator

- Electric fire pumps
- Fire alarm system

Generators are required in all high-rise buildings. They may supply additional services within the building. However, only the above systems are required to be powered.

Testing/Maintenance

Generators are required to run weekly by qualified maintenance personnel. The only exception is that weekly run test are on an automatic timer, which will cause the generator to run automatically at preset time.

However, it is extremely important that the fuel level be checked on a weekly basis.

Written test/inspection records are required to be kept on premises.

Generators are required to have an annual inspection and test to confirm that they are prepared to operate as needed and supply the appropriate emergency systems. (This inspection and test must be performed by a company licensed to perform such work). A copy of the annual inspection report shall be forwarded to the Office of the Fire Marshal and all noted deficiencies shall be required to be corrected immediately.

The following is an indication of the complexities associated with these systems and the extent of the testing that shall be performed to insure that the generator is reliable.

- The Emergency Power Support System (EPSS) shall be maintained to ensure to a reasonable degree that the system is capable of supplying service within the time specified for the type and for the time duration specified for the class.
- A routine maintenance and operational testing program shall be initiated immediately after the EPSS had passed acceptance tests.
- A written schedule for routine maintenance and operational testing of the EPSS shall be established.
- A written record of the EPSS inspections, tests, exercising, operation, and repairs shall be maintained on the premises. The written record shall include:
 - (a) The date of the maintenance report.
 - (b) Identification of the servicing personnel.
 - (c) Notation of any unsatisfactory condition and the corrective action taken, including parts replaced.
- Transfer switches shall be subjected to a maintenance program including connections, inspection or testing for evidence of overheating and excessive contact erosion, removal of dust and dirt, and replacement of contacts when required.

Note: Where sealed devices are used, replacement of the complete device might be necessary.

- Storage batteries, including electrolyte levels, used in connection with Level 1 and Level 2 systems shall be inspected at intervals of not more than 7 days and shall be maintained in full compliance with manufacturer's specifications. Defective batteries shall be repaired or replaced immediately upon discovery of defects.

Note: Maintenance of batteries should include checking and recording the value of the specific gravity.

Operational Inspection and Testing

- The routine maintenance and operational testing program shall be overseen by a properly instructed/certified individual. Usually, a third party company performs this type of testing. All testing paperwork shall be forwarded to the Fire Marshal and all deficiencies shall be repaired immediately.

TRASH & LINEN CHUTES

Trash and Linen Chutes are very convenient for the housekeeping staff. However, the chutes are often neglected and misused. It is required that all trash and linen chute doors be kept closed at all times, without exception.

- All trash and laundry chute doors must be in good operable condition.
 - a. Self-closing devices must work.
 - b. Doors must **close and latch** completely under power of self closer.
- The bottom of the chute must be equipped with a **fire door** that is in place and in good operable condition.
- The termination door shall not be held open by any device except the original fusible link.
- The fire inspector shall test each door for proper operation during his inspection.
- The trash/laundry room shall have a fire extinguisher mounted in the room at the entrance or immediately adjacent to the entrance outside the room on the wall.

FIRE RATED DOORS

The biggest problem seen with fire rated doors is corrosion, deterioration of wooden doors, and lack of maintenance. These doors are very expensive to replace!

Fire Rated Doors that fail to operate properly, due to corrosion or deterioration will be required to be replaced immediately

Metal doors should be kept free of corrosion. This is best accomplished by a good quality metal paint on all surfaces of the door, especially the top.

Where possible, an overhang, if nothing but a small drip flashing over an exterior door to keep rain from getting onto the top of both metal and wooden doors, will substantially increase their life span.

Requirements

In buildings equipped with “Fire Rated Doors” the following items apply:

- Fire Rated Doors must be of the type and design rated for the required use.
- Fire Rated Doors must be self-closing.
- Fire Rated Doors must not be blocked in the open position, **unless they are held open with an approved hold open device.**
- Fire Rated Doors must swing freely, close completely and not be capable of being locked from either side.
Exception: Exterior grade level egress doors may be locked against egress from the exterior of the building.
- Fire Rated “Stairwell” Doors must have signage affixed to them that reads “Fire Door Keep Closed”

Note: If you have any questions about the type of doors in your building please contact the City of Myrtle Beach Fire Marshal’s Office for assistance.

BACKFLOW PREVENTORS

All fire sprinkler systems, wet standpipes, and domestic water supplies to buildings are required to have a device called a double detector check backflow preventor.

This is a device, consisting of two check valves, that is designed to prevent contaminated water from flowing back into the domestic drinking water supply.

Testing/Annual Certification

This device is required to have an annual test to insure that it is functioning properly and that it continues to safeguard our drinking water supply. Paperwork, from the test, shall be forwarded to the City of Myrtle Beach Public Works Department.

Locking Arrangement

These devices also have valves that control the supply of water passing through them. If these valves are not equipped with electronic tamper switches then they must be chained and locked in the open position. This is to prevent an inadvertent turning off of the sprinkler or standpipe system.

ELECTRICAL ROOMS

Electrical Rooms must be marked with a sign that indicates its use as an electrical room.

Often times these rooms are used for storage. Storage in these rooms is permitted as long as the following code requirement is met.

- There must be a clear path of 3 feet (36) inches in front of each electrical panel, floor to ceiling, so as to allow easy access to these panels in an emergency.

General Requirements

- Electrical panels must be plainly and clearly labeled as to what each circuit controls.
- Any open spaces in the panel must be closed with blank plugs.

- The doors to these panels must remain closed at all times after use.

Electrical rooms shall have a fire extinguisher mounted in the room at the entrance or immediately outside the room near the entrance.

ELECTRIAL METER ROOMS

Electrical meter rooms are where the power meters are located. Often times this room is also where the “Electrical Buses” are located.

- **These rooms are for this use only!** No storage or other use of any type is permitted in these rooms whatsoever.

Meter rooms shall be marked with a sign that reads “**Electrical Room No Storage**”.

ELEVATORS & ELEVATOR EQUIPMENT ROOMS

Elevators provide a safe, quick and efficient means of reaching upper floors without requiring the use of the stairs. Elevators are equipped with safety features that provide for their safe operation during a fire.

- **Elevator recall** This feature recalls the elevator cars to the ground or other designated location and discontinues operation. This serves two purposes. First, it brings elevator cab to a location where passengers can exit to use the stairs or exit the building. Secondly, it holds the elevators so that fire department personnel can activate the fire service mode and utilize the elevator in an emergency.

Placing the elevator systems in the bypass mode so as to override the elevator recall is a violation that places the building under extreme liability.

Problems with the elevator and the fire alarm components require service by qualified personnel immediately.

- **Elevator signs** at the location of every elevator call button, in every elevator lobby, and on every floor, that shall read: “In the event of fire do not use the elevator, use the stairs”
- **Elevator Equipment Rooms** are where the elevator controls and machinery are located. Storage is prohibited in the elevator equipment rooms.

HOUSEKEEPING / STORAGE

Housekeeping

- Combustible rubbish stored in containers must be removed from the building at least once each working day.
- Oily rags and similar materials must be stored in metal containers equipped with tight fitting covers.
- Make sure that missing ceiling tiles are replaced or that any holes in ceilings or walls are repaired and properly sealed.
- **Cut and remove weeds and dry vegetation from around buildings and property.**
- Dumpsters must not be stored in buildings or placed within 5’ of combustible walls, openings, or combustible roof eave lines.

Storage

- Maintain storage **2'** or more below the ceiling in **non-sprinklered** buildings.
- Maintain storage **18"** below sprinkler head deflectors in **sprinklered** buildings.
- Do not store combustible material in exits or exit enclosures.

Do not store combustible material in boiler rooms, mechanical rooms, or electrical equipment rooms.

SIGNAGE REQUIREMENTS

Posting building and property addresses assists the Myrtle Beach Fire Department in responding quickly to fire and medical emergencies, which can save lives and reduce property loss.

ADDRESS

- All buildings, new and existing, must have address numbers posted in such a location as to be plainly visible and legible from the street or road fronting the property. **(Numbers are to contrast with their background)**

Note: When posting numbers or addresses for your property, remember, they must be visible to emergency responders at all hours – day and night – so make them large enough to be legible from the street. (4-inch minimum)

EXITWAY PLAN

- The owner or individual having charge of a building providing “overnight or transient accommodations” shall provide and post in each room used for sleeping purposes a exitway plan indicating primary and secondary exit routes from that floor. Fire alarm pull stations shall also be indicated on the exitway plan. The signs shall be a minimum of 5-inches by 8-inches and posted on the interior side of each guest room entrance door. The sign shall be posted approximately 5-feet above the finished floor.

FIRE RATED DOORS

- Fire rated doors designed to be kept normally open shall be marked with a sign: FIRE DOOR – DO NOT BLOCK.
- Fire rated doors designed to be kept normally closed (such as stairwell doors) shall be marked with a sign: FIRE DOOR – KEEP CLOSED.

Fire door signs shall be a minimum of 2-inches by 9-inches with 5/8-inch letters on a contrasting background. Signs shall be installed on the corridor side of the door approximately 5-feet above the finished floor.

FLOOR LEVEL / ROOF ACCESS

- An approved sign shall be located at each floor level landing in all enclosed stairways of buildings four or more stories in height.
- The sign shall indicate the floor level and the availability of roof access from that stairway and identification of the stairway.

- The sign shall also state the floor level and direction to an exterior exit discharge.
- Stairway doors that open onto parking garages may confuse exit routes and shall be provided with a sign stating : NOT AN EXIT. This sign shall also state the floor level of and direction to the exterior exit discharge. Example: NOT AN EXIT / EXIT DISCHARGE DOWN TO LEVEL #1
- The sign shall be located approximately 5-feet above the floor landing in a position, which is readily visible when the door is opened or closed.
- The sign shall be a minimum of 5-inches by 8-inches.

Example: STAIR #2 / LEVEL 6 / NO ROOF ACCESS / EXIT DISCHARGE AT LEVEL #1

FIRE DEPARTMENT CONNECTION

- Signage shall be affixed at every FDC (Fire Department Connection) location that states: **FDC (white or red 6-inch letters on a white or red background)**
- Where a FDC (Fire Department Connection) serves only a portion of a building, a sign shall be attached indicating the portions of the building served.
- Where a FDC (Fire Department Connection) serves multiple buildings, a sign shall be attached indicating the buildings served.

ELECTRICAL / MECHANICAL ROOMS

To aid emergency personnel when responding to an unfamiliar facility and to expedite the location of building electrical and mechanical services, the International Fire Code and the Myrtle Beach Fire Department requires all areas and/or rooms containing such equipment to be identified by appropriate signage. Signs shall identify the contents of the room and state “No Storage Allowed” unless authorized by the Fire Marshal. Signs shall be a minimum of 2-inches by 9-inches with 5/8 letters on a contrasting background.

Examples:

- Sprinkler / Standpipe Control Valve Room No Storage Allowed
- Electrical Room No Storage Allowed
- Mechanical Room No Storage Allowed
- Fire Pump Room No Storage Allowed
- Fire Alarm Control Room No Storage Allowed

LOCAL FIRE ALARM SIGNAGE

- When a supervising/central station does not monitor the fire alarm system, an approved permanent sign shall be posted above every manual pull station that states: **“WHEN ALARM SOUNDS CALL 911”**

ELEVATOR WARNING SIGN

- A permanent sign stating: “IN A FIRE EMERGENCY, DO NOT USE ELEVATOR – USE EXIT STAIRS”.
- Warning sign shall be posted above each elevator call button on each floor.
- Sign letters shall be at least ½ inch high.

Note: Most signs shops in Myrtle Beach are very familiar with the signage requirements mentioned above, if you have any questions or need signage guidance please contact the Fire Marshal's Office @ (843) 918-1109

MISCELLANEOUS

FIRE DEPARTMENT VEHICLE ACCESS

If the Fire Department is called to respond to your property for a fire or medical emergency, clear and unobstructed access is needed to maneuver and set-up operations effectively and quickly, when time is a critical factor.

Property or building access locations needed by emergency responders are to be left clear and unobstructed at all times.

To ensure that clear access is maintained to your property or buildings, make sure that vehicles are parked in established parking spaces and not blocking roadways in front of or around the property.

Some properties require approved fire access lanes and roadways to be established. These access ways shall be properly marked and maintained at all times.

For information or to request a fire lane/fire department access survey, please call the Fire Marshal's Office at (843) 918-1109.

DECORATIVE MATERIAL

Decorative materials are not to be placed so that they conceal or obstruct exit doors, exit signs and directional exit markings, fire alarm manual pull stations, sprinkler heads, or portable fire extinguishers.

Combustible decorative materials shall be flame resistant. There are exceptions: the display of salable goods; educational materials and product brochures that are stored, distributed and maintained in an approved manner; live vegetation of an approved type; or individual decorative items of a size and separated in a manner approved by the Fire Department.

Follow manufacturers recommendations. Treatments used to render materials flame resistant must be renewed as often as necessary to maintain the materials flame resistance.

ELECTRICAL

Do not overload electrical outlets. Most outlets have two receptacles, and only one appliance should be plugged into any receptacle at a time.

Special appliances should have their own heavy-duty electrical circuits. If you are not sure what load your circuits are designed for, consult with a SC Licensed Electrical Contractor.

If any electrical equipment is not working properly, gives off an unusual odor when in use, or starts to smoke, unplug it. If a switch is accessible, turn off the power immediately. Have the appliance or device repaired/replaced before it is put back into service.

Safety First

Before doing any electrical work, call the City of Myrtle Beach Construction Services Department at (843) 918-1111 to discuss any plan review/permit requirements.

- All permanent electrical wiring installations, including additions or modifications, are to be performed by a licensed electrical contractor.
- Defective damaged or modified wiring, devices, or appliances are not to be used until hazards have been corrected. Do not extend electrical cords through walls, ceilings, floors, under doors, floor coverings or furniture. Also do not expose or subject electrical cords to weather damage.
- **Never use extension cords for permanent wiring.** Extension cords should only be used for short periods of time with portable appliances (vacuums, electrical tools, etc.) and kept unplugged when not in use.

POOL CHEMICAL ROOMS

Pool Chemical Rooms are where the pool chlorinators are located and where pool chemicals are also usually stored.

Requirements

- The doors to these rooms shall be labeled with a sign that indicates its use, "Pool Chemical Storage"

In rooms where both oxidizers (CHLORINE) and (ACID) are stored. They shall be stored in such a manner as a leak or break in any container would not allow them to mix. They shall be stored apart from one another as far as is possible within the room.

- **Do not store liquids above powders.**
- Chemicals shall be stored on an elevated platform; this will prevent the chemicals from getting wet and collecting moisture.
- Petroleum products shall not be stored in pool chemical rooms.

Pool / Chemical rooms shall have a fire extinguisher mounted in the room at the entrance door or immediately outside the room on the wall.

EMERGENCY CONTACT NUMBERS

FIRE, MEDICAL POLICE9-1-1

NON-EMERGENCY NUMBERS

CITY OF MYRTLE BEACH FIRE DEPARTMENT

Administration	(843) 918-1192
Fire Marshal's Office	(843) 918-1109
Fire and Life Safety Education	(843) 918-1221
Fire Training Academy	(843) 918-2246
Battalion Chief's Office	(843) 918-1395

CITY OF MYRTLE BEACH FIRE DEPARTMENT STATION LOCATIONS

Fire Station #1	1250 Mr. Joe White Ave.
Fire Station #2	5338 North Kings Hwy.
Fire Station #3	2108 South Kings Hwy.
Fire Station #4	1170 Howard Pkwy.
Fire Station #5	804 79 th Ave North
Fire Station #6	97038 th Ave North
Fire Training Academy	2108 South Kings Hwy.
Fire Administration	921-B Oak Street

CITY SERVICES

City Hall	(843) 918-1012
Planning Dept	(843) 918-1050
Zoning Dept	(843) 918-1167
Construction Services	(843) 918-1111
Building Department	(843) 918-1179
Business License	(843) 918-1151
Utility Billing	(843) 918-1212