

MIAMI BEACH FIRE RESCUE DEPARTMENT



**GUIDELINES FOR PREPARING AN
EMERGENCY EVACUATION PLAN**



EMERGENCY PROCEDURES / EMERGENCY EVACUATION PLAN

INTRODUCTION:

National Fire Protection Association (NFPA) 101 Life Safety Code ("Fire Code ") provides the minimum requirements for life safety from fires and similar emergencies consistent with the public interest. These minimum requirements address, among many other aspects of fire protection, the provision of "Safe area of refuge" and/or occupant evacuation facilities. Emergency evacuation plans help building occupants become aware of emergency evacuation procedures and to ensure the efficient use of the exit facilities in the event of fire, explosion, bomb threat, or similar emergency where the organized evacuation of a building becomes vital.

INFORMATION:

These general guidelines are issued to provide information that will enable responsible personnel to prepare emergency procedures and an emergency evacuation plan. Although each building must tailor their emergency procedures in accordance with the unique features of the building and its occupants, the main principles and recommendations set forth in these guidelines will be included in the evacuation procedures and plans of most buildings. To be effective, emergency evacuation plans and exit drills must be planned and designed in cooperation with the Authority Having Jurisdiction. Emergency evacuation shall be a joint planning and implementation effort between the building management and occupants, the fire and police departments and other designated agencies.

These guidelines identify emergency duties, evacuation plan organization, and evacuation plan implementation. A carefully designed plan can augment the fixed, active, life safety systems and other passive emergency protection systems and features required by "The Code." This allows for occupants, tenants, managers, security and maintenance personnel to be involved in providing for their own safety and that of others during an actual emergency. When this involvement is properly addressed and encouraged, it generates enthusiasm and commitment and will help to ensure compliance with the plan when it is really needed. The following pages contain useful information. You are free, as you see fit to transfer any sections or all of this information into your building's EMERGENCY EVACUATION PLAN.

QUESTIONS OR ASSISTANCE:

If you have any questions about Fire Code requirements, or need assistance determining code compliance with evacuation and emergency procedures for your building, contact the Fire Prevention Division at (305) 673-7123, between the hours of 8:00 a.m. and 5:00 p.m. Our Fire & Life Safety Education Specialist may be able to answer your questions concerning preparation of your emergency evacuation plan and coordinate the monitoring of emergency evacuation drills. In addition, fire safety and evacuation presentations, including fire extinguisher training for building occupants and employees, are also available. For an appointment, contact the Public Education Officer at (305) 673-4935 or E-mail: dmoen@miamibeachfl.gov.

GENERAL CONSIDERATIONS PAGE 2

LIFE SAFETY ISSUESPAGE 3

GENERAL FIRE AND LIFE SAFETY PAGES 4 - 6

EVACUATION PROCEDURES P AGES 7 & 8

GENERAL RESPONSIBILITIESPAGE 8

GENERAL GUIDELINES.....PAGE 9 & 10

ORGANIZATION OF EVACUATION PERSONNELPAGES 11 -13

EMERGENCY EVACUATION DRILLSPAGES 14 & 15

ATTACHMENTS:

- SAMPLE EVACUATION PLAN
- ORGANIZATION SAMPLE FLOOR PLAN
- RESOURCE INFORMATION

GENERAL CONSIDERATIONS

KNOWING THE BUILDING

Make a survey of the building. Become familiar with the fire protection features of the building. This should include information about the operation of the following systems as examples; fire alarm, public address, smoke evacuation, ventilation, sprinklers, central alarm monitoring, fire extinguishing equipment, and any fire pump operating equipment. If you are not familiar with your fire alarm system or other fire protection systems, contact a professional fire protection company to learn more about them. For example, do you know how to reset the alarm? Would you be able to identify where the trouble is originating from, if a pull station was activated? Become familiar with the location of all stairwells, storage areas, electrical rooms, elevators, restrooms, fire extinguishers, pull station areas, equipment rooms, computer rooms, and areas where occupants of the building are most likely to be.

BUILDING OCCUPANTS AND BUILDING USE

Who are the people that occupy your building? Is it a changing population, as in a retail store, restaurant, or hotel? Will the building occupants be familiar with the facility and prepared for the emergency? Note any special characteristics of the occupants such as non-English speaking, disabled (permanently or temporarily), the very young, the elderly, or infirm. All of the preceding target groups may present a challenge when evacuating a building. Consider any special uses that might pose a particular hazard. Does manufacturing occur? Are there kitchen facilities or services present that might involve flammable liquids or open flame? If the building is residential, the emergency or fire may occur while occupants are asleep. Being aware of all the above information will help you identify areas where trouble would be likely to occur, where people would most likely be found, and the best course of action for providing refuge and or efficient evacuation. Knowing this will also be helpful in being able to identify the nature of the emergency and provide emergency response personnel (firefighters, police officers), with needed information.

LIFE SAFETY ISSUES

DEFINITION OF FIRE

Fire is the rapid oxidation of any combustible material. It is a chemical reaction involving fuel (any material that will burn), heat, and oxygen. You can compare a fire to a triangle, it has three sides. If anyone side is removed, the triangle will collapse. Remove any of the three elements; fuel, heat, or oxygen necessary to sustain fire, and the fire will be extinguished. Smoke is a product of combustion and is most responsible for death caused by fire. Remember smoke kills people more than the fire itself. As little as two (2) minutes after a fire starts, it generates enough smoke to affect people in the area surrounding the fire. Prompt evacuation and confinement of the fire area ensures the protection of life and property.

FIRE PREVENTION

Preventing fires is the most important aspect of a total package of life safety strategies. Most fires do not just happen. They are caused by unsafe behavior; an action or a failure to act. Usually, unsafe behavior is not deliberate. It is simply, not knowing. It is an act or a failure to act. Causes of fire are most directly related to: improper use of smoking materials, improper storage of flammable liquids, defective electrical appliances, overloading of electrical outlets, and poor housekeeping. Employers and building managers should make general fire safety information available to employees and building occupants. Basic fire prevention measures and minimum training in the use of fire extinguishers, as well as proper maintenance of fire protection systems ensure that the minimum standards for fire prevention are in place.

LIFE SAFETY STRATEGIES

Fire Codes provide minimum standards for life safety. An overall life safety strategy includes many facets. For example, an inoperative door closer is not simply a code violation, but a serious threat to the life safety strategy of a building. An inoperative door closer will help to spread the threat to the building occupants and render an evacuation plan useless. An emergency evacuation plan will augment the standards for life safety in a building when all other aspects of life safety and fire protection are fully functional. People are the most vital part of this strategy in the event of system malfunctions or catastrophic emergencies such as acts of terrorism.

Building managers and security directors in coordination with the Fire Department can better communicate the idea of life safety strategies to the building occupants. Building occupants and staff will be able to set their priorities according to the life safety strategies for the building. When everyone understands the importance of life safety strategies in a building, the connection is made between the prescribed actions of an emergency evacuation plan and life safety. Failure to make this connection results in the main reason emergency evacuation plans are not taken seriously, fire alarms are ignored, and exit drills are considered a nuisance. The Fire Department's Community Education Coordinator can assist you in providing education on fire and life safety to building occupants and staff.

GENERAL FIRE AND LIFE SAFETY

FIRE SAFETY TIPS

- Test smoke detectors monthly and change the battery twice each year. .
- Do not smoke in bed or while resting on a sofa or chair. Falling asleep while smoking is dangerous and can start a fire
- Refrain from smoking in no smoking areas. Only smoke in designated areas.
- Properly dispose of any smoking materials. Contents of ashtrays should be wet before disposal
- Properly dispose of rags, cleaning solutions.
- Keep space heaters at least three (3) feet away from anything that burns.
- Maintain cooking appliances and kitchen hoods clean. Do not allow for the accumulation of grease. .
- Keep flammable materials stored in metal flammable liquid storage cabinets.
- Do not use “Zip Cords” or long extension cords as permanent wiring to operate any electrical products. Power strips are better but it is best to install more electrical outlets as needed.
- Do not plug more than two electrical products into one electrical outlet
- Turn off stoves and electrical appliances after use and NEVER leave them unattended.
- Never use defective electrical equipment. If wires are frayed or equipment is malfunctioning, have them rewired or replaced immediately.
- Keep storage at least eighteen (18) inches away from sprinkler heads.
- Keep maintenance and storage areas clean and free of trash, sawdust, wood shavings, oily rags and other hazards.
- Keep halls and stairways clear.
- Be sure that EXIT signs are always lighted and that emergency lighting is in working order.
- Never prop open emergency exit doors. Fire doors not only let people out, they keep fire from spreading.

EXIT DRILLS IN THE HOME (E.D.I.T.H)

Fire escape planning for residential facilities must be a part of the overall life safety strategy for a building. It is important that residents plan and practice the exit from their residential unit before they can become part of the overall emergency evacuation effort. It is especially important for residents of low and high-rise apartment buildings to have a plan to be able to vacate the residential unit and to know what to do if they are unable to do so. At times it is best to remain inside the unit until emergency personnel arrive to perform a rescue of the occupant.

EDITH addresses the following:

- Install and properly maintain smoke detectors.
- Draw a plan of the residential unit, showing at least two ways out of each room.
- Practice your plan at least twice a year.
- Make certain that all the occupants of the unit are able to open doors and windows even in the dark.
- If you reside above ground level in low or high-rise buildings, make special arrangements for children, the elderly and the disabled.

- Feel all doors before opening with the back of the hand. If the door is warm or the doorknob is hot, there is fire on the other side. Do not open the door. Choose an alternate exit.
- If the door is cold, open slowly. Crawl low under the smoke while following the established emergency evacuation routes.
- If upon opening a door, heavy smoke or fire is present, immediately shut the door and retreat to a safe area shutting all doors between you and the fire.
- Fill in the cracks underneath the door and ventilation ducts and vents with sheets or towels to keep smoke out.
- Hang a white towel or sheet outside the window or signal with a flashlight while you wait for emergency personnel to reach you.
- Do not break windows or sliding glass doors above ground level. If the fire is on the floors below, the smoke will come through these broken windows or doors.
- Call 9-1-1. Keep telephones in the bedroom. Cordless phones can be taken with you wherever you are waiting to call the Fire Department and advise your exact location. Do this even if you can see the fire trucks below through your window. The emergency dispatcher will communicate this information to the emergency response personnel by radio. Remain on the phone until told otherwise by the emergency dispatcher.
- In an emergency, never stop to gather any personal belongings, but exit rapidly and follow the emergency evacuation plan for your building.
- Once you get out, **STAY OUT! NEVER** go back into the building until fire officials have issued the all clear to go back inside.

FIRE SAFETY FOR PEOPLE WITH DISABILITIES

- For the hearing impaired, smoke detectors are available that are wired to high-intensity strobes that flash.
- If you live in an apartment, try to occupy one on the ground floor. Living near an exit will make your escape easier.
- Let the building security or management know about your special needs, even if your disability is temporary.
- Have a telephone, preferably a cordless type, in your bedroom.

FIRE SAFETY IN HEALTH CARE FACILITIES

- Employees must share the responsibility of restricting smoking to designated areas.
- Post smoking rules conspicuously and apply them to everyone: patients, staff, non-facility workers, volunteers, visitors and delivery people.
- Never tolerate smoking in an area where oxygen is in use or is stored.
- In smoking areas, provide large, deep, non-tip safety ashtrays with the cigarette holder in the middle – not around the edge of the ashtray. Be sure that ashtrays are emptied frequently into metal containers used exclusively for that purpose.
- Be especially careful of equipment that patients may bring from home.

FIRE EXTINGUISHER INFORMATION:

Fires are generally classified into three basic classes: A, B, or C. Each class is defined below:

- A.** These fires involve common combustible materials such as wood, paper, textiles, etc. – most anything that will produce an ash when burned. These fires are extinguished by cooling or quenching, or removing the heat source.
- B.** These fires involve flammable liquids such as gasoline, grease, oils, paints, solvents, etc. These fires are extinguished by prohibiting oxygen from reaching the fire. Water alone is not a recommended extinguishing agent for these fires. Dry chemical, carbon dioxide or foam, are the best extinguishing agents.
- C.** These fires involve energized electrical equipment exclusively. Motors, switches, short circuits, etc. They are extinguished by de-energizing the equipment first and then using a non-conducting agent, such as dry chemical or carbon-dioxide.
"NEVER USE WATER ON ELECTRICAL FIRES"

Fire extinguishers are classified according to the above. The extinguisher must be appropriate for the type of fire being fought. If you use the wrong type of extinguisher, you can endanger yourself and make the fire worse. A fire extinguisher that can be used for all fires is an ABC Multi-Purpose Dry Chemical fire extinguisher.

Extinguishers are also rated for the size of the fire they can handle. This rating will appear on the label. The larger the numbers, the larger the fire the extinguisher can put out. .

Extinguishers must be installed within easy reach and in working order, fully charged. The operator of the fire extinguisher must know how to use the extinguisher. There is no time to read directions during an emergency.

FIRE EXTINGUISHER OPERATIONS:

Keep your back to an unobstructed exit and stand six to eight feet away from the fire. Follow the four-step **PASS** procedure:

- P** – Pull the pin: This unlocks the operating lever and allows you to discharge the extinguisher.
- A** - Aim low: Point the extinguisher nozzle (or hose) at the base of the fire.
- S** - Squeeze the lever above the handle: This discharges the extinguishing agent. Releasing the lever will stop the discharge.
- S** - Sweep from side to side: Moving carefully toward the fire, keep the extinguisher aimed at the base of the fire and sweep back and forth until flames disappear.

Contact the Fire Prevention Division for specific questions on code compliance. Contact the Community Education Coordinator for additional fire and life safety information and fire extinguisher training classes.

EVACUATION PROCEDURES:

BEFORE THE EMERGENCY ARISES

Post evacuation routes and emergency phone numbers in designated places throughout the building. In Dade County, dial 9-1-1 for police, fire or medical emergencies. If the building manager or security wants to be notified of the emergency, the appropriate number should also be posted and listed on or near the phone.

Building occupants should be instructed to dial 9-1-1 whenever an emergency should occur or is discovered. They should be prepared to provide the following information:

- The nature of the emergency.
- The address of the building and the specific location.
- The nearest cross street.
- The extent of the fire and/or emergency - Additional related information.

The caller should never hang up until told to do so by the emergency dispatch operator.

IF THE ALARM SOUNDS, OR AN EMERGENCY IS IDENTIFIED:

Treat every alarm as though it is a real emergency. The moment you hear an alarm or a suspected fire or related emergency is identified, dial 9-1-1 immediately. Do not silence or reset the alarm at this time to ensure occupant exiting. If, after investigation, you determine that there is no emergency, but rather, a malfunction of your equipment/false alarm, you may call 9-1-1 back and attempt to cancel the response before fire rescue units arrive. The 9-1-1 dispatcher will contact the responding units by radio and may downgrade the emergency to a “routine” response. If the response is downgraded to “routine”, the responding units will continue to arrive and help investigate and/or silence and reset the alarm etc. **Always call 9-1-1 before investigating the alarm, and NEVER, under any circumstance, silence or reset the alarm before fire rescue units arrive (usually in three to four minutes).** These dangerous delays may allow a fire to grow and spread, preventing a rapid fire department and occupant response, further endangering the building occupants and property.

If your building has an older alarm system and experiences frequent “NUISANCE” alarm activations (false alarms), the alarm system has “trouble” and should be repaired immediately. When the alarm sounds, this situation causes people to delay their evacuation thinking it is just another false alarm. If a real fire happens, this complacency can kill. If the “TROUBLE” indicator light on the alarm panel illuminates, without an alarm activation, call your alarm company to respond and immediately repair the system. This could be a serious Fire Code violation. If the repair requires the alarm system to be inoperable for more than four hours, a “Fire Watch” must be established by the building. Procedures for establishing this “Fire Watch” are available through the fire department. THERE IS NO EXCUSE FOR A FAULTY ALARM SYSTEM. FIX IT IMMEDIATELY, OR REPLACE IT WITH A NEW SYSTEM.

UPON DISCOVERY OF A FIRE, A BOMB THREAT, OR ANY OTHER RELATED EMERGENCY:

- Sound the alarm system.
- Call 9-1-1 and notify the building manager or security.
- Remove from immediate danger any person or persons in close proximity to the fire/smoke or other danger.
- Discontinue all activities, walk to exits, and evacuate the building or to below the “DANGER AREA.”
- Assist and direct the disabled and visitors to exits. .
- Do not attempt to secure personal belongings unless they are located in your immediate area.
- Respond to your pre-assigned evacuation area.

- Assist emergency personnel by providing information of emergency location or of any occupants that may still be unaccounted for.
- Follow the instructions provided by emergency response personnel. They are specially trained to organize the scene and assume total command upon arrival.
- If a bomb threat, do NOT use cell phones or portable 2-way radios. These radio waves could trigger the bomb to explode.

EMERGENCY RESPONSE REQUIRING SPECIFIC TRAINING

Health care facilities have special needs for response to fire-related emergencies and evacuation due to their specific use. Most of these facilities adhere to emergency procedures associated with the R.A.C.E. acronym. The procedures may be suited for use in emergency evacuation plans. It is important to consider that the following response requires specialized training and that rescue or extinguishment should not further endanger any lives.

R - Rescue or remove from the area anyone exposed to the fire or smoke.

A - Alert and Alarm

1. Immediately sound the alarm by pulling the fire alarm pull station. Know where the pull stations are located in your area.
2. Go to another area away from the fire and dial 9-1-1. Do not assume someone else will call. Be prepared to stay on the line to provide more information while emergency units are being dispatched.
3. Make additional notifications to building management or security personnel as appropriate.

C - Contain the fire

Do not allow the fire to spread. Close doors to keep fire from spreading to more combustibles and to keep the smoke contained. Close windows and doors. If emergency is a bomb threat, open windows and doors to relieve pressure, turn off all radios, maintain radio silence, stop all radio transmissions, and do not handle unfamiliar objects.

E - Extinguish .

If you have completed the above steps you may attempt extinguishment only if the following conditions exist:

- A very small fire.
- Availability of the proper fire extinguisher.
- Prior training on the use of a fire extinguisher.

Be prepared to abandon your effort and evacuate immediately if the fire continues to burn or begins to spread, closing all doors between you and the fire as you retreat.

The Fire Department will extinguish the fire upon arrival.

GENERAL RESPONSIBILITIES

There are important considerations to successfully develop and implement an emergency evacuation plan:

- The information contained in the emergency evacuation plan must be disseminated to all employees, tenants, occupants, or residents of a building.
- Careful consideration must be given to assigning responsibilities for the coordination and implementation of the plan.

GENERAL GUIDELINES

There are general guidelines to developing an emergency evacuation plan which should include the following:

1. Floor plans.
2. A table of organization for evacuation personnel.
3. Detailed descriptions of specific duties and responsibilities, listed by each job title, for all personnel in the plan.
4. General fire safety information and occupancy-specific information.
5. Clear, concise evacuation procedures suitable to the specific occupancy or building use.
6. **PRIORITY MUST BE GIVEN FOR PROMPT NOTIFICATION TO THE FIRE DEPARTMENT.**
7. Notification of building management and/or security personnel should be done only after calling 911.
8. Employees should NOT be directed to rescue or extinguishment unless they have been previously identified and trained for this purpose.
9. Special consideration must be given to the assignment of responsibilities in the organization of the plan. Personnel chosen to perform specific functions and duties associated with the implementation of the plan should be thoroughly familiar with the building and its occupants and possess the ability to remain calm and in control during an emergency.
10. **ZONE THE BUILDING WITH THE FOLLOWING GUIDELINES IN MIND:**
 - a. The building layout - Use the shape of the building to fashion easily recognized zones. This can be done by floors, wings, work areas, etc.
 - b. The size or square footage of the zone - Too large an area will make accounting of personnel difficult in an emergency. Divide large zones into smaller areas.
 - c. The number of personnel in the zone - The zone should be limited to the number of personnel that one person can readily account for (15 - 20).

HIGH-RISE EVACUATION

Standard operating procedures will have to be established for your building depending on the communications and other safety features you have. There may be some minor changes you may need for your building, but most emergency procedures include the following:

1. **ACTIVATE THE ALARM.**
2. Notify Fire Dept. and Emergency Evacuation Team, Bldg. Mgr., or Security.
3. Commence Evacuation - Occupants proceed immediately to their designated primary exit stairwell under the direction of the Emergency Evacuation Team. Once occupants are safely inside the exit stairwell (SAFE AREA OF REFUGE), The NFPA recommends that immediate evacuation begin with any alarm for the alarm floor, two floors above and two floors below the alarm floor. These floors are designated as the "DANGER AREA". In sprinklered buildings, the occupants may proceed to a safe area **below** the Danger Area. However, in unsprinklered buildings, it is recommended that the evacuated personnel proceed all the way **down** to the outside and away from the building. Fire Department personnel will assess the situation upon arrival and order additional evacuation if necessary. Different stairwells should be assigned for alternate floors and all occupants should know their secondary exit stairwell in the event that smoke contaminates their primary exit.

EVACUATION OF THE MOBILITY IMPAIRED:

Persons having any mobility impairment need to be considered prior to any need for evacuation. It is necessary to keep an updated list of persons that are mobility impaired or who may require special assistance in the event of an evacuation, including their exact location in the building (floor and unit number). It is very important that this list be given to Fire Department personnel upon arrival to the building emergency. Personnel that do not require assistance will evacuate first. This avoids the possibility of persons in need of assistance being bumped and falling down, thus slowing evacuation and/or causing injury. If there is evidence of fire, persons having mobility impairment should be positioned near the fire exit stairs that are located farthest away from the fire. If the fire conditions pose an immediate threat, these persons along with the persons assigned to monitor and assist the evacuation of the mobility impaired, should enter into the stairwell, closing all doors to wait for special assistance from the Fire Department. If in the opinion of the emergency evacuation personnel, the danger is imminent and the Fire Department has not yet arrived, immediate steps shall be taken to begin the immediate evacuation to below the "Danger Area" or to the outside.

ELEVATORS AND EVACUATION:

Elevators should never play a part in emergency evacuation procedures. The reason for this is that some elevator calling systems are heat activated. If an elevator is ever used for evacuation, the heat caused by a fire may cause it to open on the fire floor, endangering the lives of those people in the elevator. In the event of electrical failure caused by fire damage, the elevators may cease to operate, trapping its occupants between floors and inside the building. Also, elevator shafts become smoke stacks in case of fire. Persons in elevators can become victims to the smoke and succumb as a result.

PUBLIC ADDRESS ANNOUNCEMENTS:

The following sample public address announcements may be used for emergency evacuation procedures:

In case of fire alarm:

"This is the Building Safety Director. We have an alarm on the _____ floor. The Fire Department has been notified and the source of the alarm is being investigated at this time. Please go to the nearest fire exit stairs and stand by for further instructions." If you can hear the alarm sounding, please evacuate immediately **down** the nearest exit stairwell."

In case of report of a fire or related emergency:

"This is the Building Safety Director. We have an emergency on the _____ floor. The Fire Department has been notified and the situation is being investigated at this time. Floors _____, _____, _____, _____, and _____ must begin to evacuate immediately. Every one else, please go to the nearest fire exit stairs and stand by for further instructions. If you can hear the alarm sounding, please evacuate immediately **down** the nearest exit stairwell."

Emergency Evacuation Drills:

"This is a practice evacuation drill. Please go to the nearest fire exit stairs and stand by for further instructions (or) Please begin the immediate evacuation of the building and follow the instructions of the emergency evacuation plan and the emergency evacuation team."

In the absence of a public address system, the plan must contain a system for notification of all occupants of the building, by phone or area search.

ORGANIZATION OF EVACUATION PERSONNEL

The following is provided as a sample evacuation plan organization. It is comprised of a team, specifically trained for the purposes of implementing an emergency evacuation plan in the event of fire or other emergencies. Adjustments must be made to specifically address staffing and the team members according to the specific occupancy, the occupants, and employees or staff. It is recognized that a Business/Office Occupancy with multiple tenants may have to coordinate the evacuation plan organization among all tenants in the occupancy. **The titles given to the team members can be changed to accommodate titles or job functions that are already existent in a particular occupancy, however, all of the duties are important and should be assigned, by job title, as specified in the plan. Staffing needs may indicate that some duties will be shared by more than one person, or that several job functions will be assigned to one person. Job functions or tasks should be listed by job title, rather than by department. Every job title should be given specific job functions/tasks and specifically listed in the Plan, even if the only job function for a particular job title is to evacuate through a specific exit and assemble to a particular assembly area. Be specific, detailed and very clear as to what everyone will do. This will help to avoid confusion and the possibility of employees putting themselves in danger. Careful consideration must be given to avoiding giving too much responsibility to one person. This may prove to be counterproductive. **This sample evacuation plan describes a fire brigade section. It is recognized that some businesses or occupancies may have an internal fire brigade or Fire Response Team, but many businesses or occupancies are not equipped to provide for such. Therefore, these guidelines for evacuation team organization will concentrate on providing for the safe evacuation of the occupants in a building.****

BUILDING SAFETY DIRECTOR

In the event of a fire, fire alarm activation, or other emergency, the Building Safety Director reports to the pre-established emergency evacuation command station. If your occupancy has a fire alarm control panel station or a central security station, this may be the most appropriate location for the emergency evacuation command station. The building safety director will direct, supervise, and coordinate the following:

- Report to the Fire Command Post with two-way radio & establish contact with Fire Response Team and Fire Wardens.
- Assume command of the emergency evacuation command station.
- Determine the nature of the emergency and provide a course of action. Verify that the Fire Response Team has been alerted &, armed with extinguishers, is responding.
- Necessary public address announcements are made.
- Provide direction of evacuation procedures and contingencies as provided for in the emergency evacuation plan.
- Ensure that the Fire Department has been notified and provide pertinent information to the emergency dispatcher.
- Report fire conditions to the Fire Dept. upon arrival. Provide pertinent information and assistance to emergency personnel upon their arrival.
- Have someone who is knows the building call all elevators to ground floor & meet F.D. with all emergency keys. Assign key personnel to assist Fire Department personnel with access to the building.
- Advise F.D. Incident Commander on the operation of the Fire Command Post.
- Be responsible for assignments and training of the emergency evacuation plan team members.

ASSISTANT BUILDING SAFETY DIRECTOR

In the event of a fire, fire alarm activation, or other related emergency, the Assistant Building Safety Director will report to the pre-established emergency evacuation command station and assists the Building Safety Director with the duties associated with the position. In the absence of the Building Safety Director, this person will assume the duties and responsibilities of that position. This position is very important and requires a high degree of capability.

BUILDING EVACUATION TEAM LEADER (BUILDING EVACUATION SUPERVISOR after normal working hours in residential buildings):

In the event of a fire, fire alarm activation, or other related emergency, the Building Evacuation Team Leader or Supervisor proceeds as follows:

- Contact the Building Safety Director at the emergency evacuation command station to receive information and instructions on course of action.
- Ensures the effective implementation of the Emergency Evacuation Plan.
- In the absence of the Building Safety Director and the Assistant Safety Director, this person assumes the duties and responsibilities of those two positions (ie., after hours).

ZONE/AREA TEAM LEADERS (FLOOR WARDENS after normal working hours in residential buildings):

In the event of a fire, fire alarm activation, or other related emergency, the **Floor Team Manager** or **Floor Warden** proceeds as follows:

- Makes the appropriate notifications, stating fire or emergency conditions.
- Is responsible for evacuating the immediate area and isolating this area to prevent the fire from spreading.
- Mitigates conditions, if possible.
- Contact the Building Evacuation Team Leader or Supervisor for verification of alarm and course of action.
- Ensures that all occupants are notified of the fire or other emergency and that they proceed immediately to execute the emergency evacuation plan.
- Selects the safest exit to use for evacuation of occupants based on fire or emergency conditions.
- Supervises exit monitors and area searchers.
- In the absence of the Building Evacuation Team Leader or Supervisor, this person assumes the duties and responsibilities of that position.

Zone/Area Team Leaders (Floor Wardens):

- Work locale - Their work area should be in such a place that they would know who was or was not in the zone most of the time. This person is also aware of who may need assistance with evacuation due to permanent or temporary disability.
- Frequency of absence from their zone - The majority of their routine work should have them usually in the zone.
- Ability to stay calm and in control during an emergency - They should be able to command a presence of authority and responsibility.
- Familiarization with the zone - They should be very familiar with the zone, the people, the building's overall layout, and surrounding area. They should also be familiar with all access routes to and from the building and the surrounding areas of the building that may be designated as reporting areas.

ZONE/AREA TEAM ALTERNATES (DEPUTY FLOOR WARDENS after hours in residential buildings):

In the absence of the zone/area team manager, or if the zone/area manager becomes a victim, these persons assume the duties and responsibilities for that position. These persons assist the zone/area team leader with the duties and responsibilities of the position including the supervision of exit monitors and area searchers.

- Zone alternates - There should be one or two zone alternates. Having alternates provides continuity if the zone/area team leader is not present, has to assume the duties of the building evacuation team leader in his/her absence, or becomes a victim. In the event of a disaster, they can provide assistance to the zone/area team leader.

EXIT MONITORS

Each zone/area should provide exit monitors. These persons report to the zone/area team leaders and assist in the following:

- Identify the nearest and safest exit to be used for the evacuation.
- Reports to the area of exit to provide direction and assistance to persons evacuating the building.
- Monitors the safe evacuation of all occupants and is ready to provide instructions as necessary.
- Ensures that doors are closed to compartmentalize the building during evacuation.
- Ensures that fire doors and stairwell doors are closed when not in use and after everyone in the zone has safely evacuated.

AREA SEARCHERS

Each zone/area should provide area searchers. It is not intended that these persons will risk their own safety to search for victims in fire conditions. These persons report to the zone/area team leaders and assist in the following:

- Ensures that everyone in the zone is aware of the evacuation order.
- Ensures that personnel in restrooms and other isolated areas are aware of the evacuation order.
- Ensures that everyone in the zone responds immediately to the evacuation order.
- Provides information on areas that may have to be immediately searched by emergency response personnel for personnel in their zone/area.
- Provides accountability.

FIRE RESPONSE TEAM (FIRE BRIGADE)

- Armed with fire extinguishers & radio, the Fire Response Team (at least two employees) respond & meet in a designated stairwell one floor below the alarm floor. Together, they go up to the alarm floor to investigate the alarm to determine a real fire or false alarm. If real, radio the Fire Command Post, then, fight the fire with fire extinguishers.

EMERGENCY EVACUATION DRILLS

It is recommended at least every six months or as often as required by Code, that emergency evacuation drills be held for every building in accordance with a pre-determined emergency evacuation plan. These drills shall be designed in cooperation with the local authorities and coordinated with the "Authority Having Jurisdiction." The Miami Beach Fire Department as the "Authority Having Jurisdiction," will provide assistance, coordinate, and schedule the drill activities with the building Security Director or building Manager. The drill activities should consist of the following:

1. **Planning Meeting** - Fire Department personnel meet with the Building Manager, Security Director and key personnel prior to the drill date to go over the emergency evacuation plan, become familiar with the plan and the building, and provide answers to any questions or concerns to coordinate details for the drill.
2. **Drill Day** - Fire Department personnel will monitor the drill and make observations of drill activities.
3. **Post Drill Critique** - Fire Department personnel will meet with Building Manager, Security Director and key personnel to provide the information gathered during the drill and to offer assistance with any observations made to help improve the safe evacuation of the building.

Contact the Fire Prevention Division at (305) 673-7123 for questions on Code requirements pertaining to exit drills for your building. Contact the Public Education Specialist at (305) 673-4935 to coordinate and schedule drill activities.

GUIDELINES FOR A SUCCESSFUL EMERGENCY EVACUATION DRILL.

One of the most important things to remember is that the purpose of an emergency evacuation drill is to ensure the efficient and safe use of the egress facilities available. Orderly egress under control prevents the panic that has been responsible for the greater part of the loss of life in the major fire disasters of history. Order and control is the primary purpose of any evacuation and/or drill. Speed in emptying buildings, while desirable, is not in itself an objective and should be made secondary to the maintenance of proper order and discipline. The following will provide general guidelines for the planning and implementation of a successful emergency evacuation drill:

1. Alarm system:
 - a. All alarm bells sounded.
 - b. Alarm and public address heard in all occupied areas.
 - c. Master control panel working properly.
2. Established evacuation routes:
 - a. Designated evacuation route followed.
 - b. Routes best adapted to available exits.
 - c. Exitways clear and unobstructed.
 - d. Occupant load divided equally according to exits available.
 - e. Fire doors to stairs kept closed when not in use.
3. Manner of evacuation to exits and safe areas:
 - a. Elevator operation ceased.
 - b. Proper formation of lines.
 - c. Doors shut to compartmentize rooms.
 - d. Orderly movement, no crowding.

- e. Provisions for evacuation of the disabled is adequate.
- f. Restroom and other isolated areas checked for personnel.
- g. Groups moved to adequate safe area.
- h. All persons accounted for (some kind of roll call taken) at the assembly area.
- i. Fire Department access to buildings is clear.

IMPORTANT THINGS TO KNOW AND REMEMBER:

1. The roof is not an approved exit. When evacuating, **NEVER go up** in a building. Fire is more likely to spread up as heat rises. When evacuating, **ALWAYS go down.**
2. When the Fire Department arrives, the fire officer is in charge.
3. Most critical areas for immediate evacuation in a high-rise are the fire floor, two floors above and two floors below the fire floor (“DANGER AREA”).
4. Use elevators only when assisted by Fire Department personnel.
5. Only personnel previously trained in fire extinguishers should ever attempt to use this equipment.
6. Fire protection equipment must be maintained and tested as required by code.
7. **THERE MUST BE AT LEAST ONE PERSON AT ALL TIMES THAT A BUILDING IS OCCUPIED, CAPABLE OF DIRECTING THE EVACUATION OF THE BUILDING.**
8. Emergency evacuation drills must be conducted as required by code and coordinated with the Authority Having Jurisdiction. All building employees must be required to participate in any drills, and all other occupants will be notified in advance and encouraged to participate.
9. Temporary employees and building occupants must be made familiar with the emergency evacuation plan.

EMERGENCY PLAN INSPECTION

Maintenance of exit doors, emergency communication systems and other building safety features requires continual surveillance. A good EMERGENCY PLAN INSPECTION FORM will help ensure that life safety features are ready to be put into action whenever needed. It is suggested that both building occupants and building management examine safety features regularly. This will serve a dual purpose; keeping maintenance at a good level and also continuously educating the building occupants on program procedures, building layout and other pertinent information. There are many items that you may deem necessary to include in your building's inspection plan. The following, however, is a list of seven basic problem areas that should be considered before designing your Emergency Plan Inspection Form for your building.

1. EMERGENCY COMMUNICATION

- a. What method of notification will be used to notify residents in an emergency (ALARM SYSTEM)? Does this system have a back-up source of power in case of power failure due to fire?
- b. What types of two-way communication is available to contact the Emergency Evacuation Command Station for information or instructions? If a telephone is the only link, what is the number?
- c. How often are the emergency communication systems tested? These systems should be tested regularly.
- d. Who will be operating the Emergency Evacuation Command Station before Fire Department arrival? Do they have a trained alternate in case they are not there? This function will usually be performed by the Building Manager, Engineer or Chief of Maintenance. Assistants should also be trained in this area in case of absence of the regular person in charge.
- e. Where is the Emergency Evacuation Command Station located? It will sometimes be the Building Engineer's office so that building functions such as power and air conditioning can be controlled as needed. However, the Emergency Evacuation Command Station should be near the Fire Alarm Control Panel and should also be easily accessible to Fire Department officials for quick aid as needed.

2. FIRST AID FIRE EQUIPMENT

- a. Are the fire extinguishers in the building charged and usable? Extinguishers should be full and readily available for use on minor problems. Extinguishers should be inspected and tagged once a year.
- b. If standpipe hose cabinets are present, are they in plain view and accessible? Cabinets containing first aid fire lines should be kept unobstructed and easy to reach.

3. FIRE PROTECTION AND DETECTION DEVICES

- a. Sprinkler systems should be inspected and tested as required by the Life Safety Code.
- b. Common area smoke detectors should be inspected and tested as required by code. Single station smoke detectors should be tested once per month and the batteries replaced twice each year.

4. EXIT STAIRWELLS

- a. How many stairwells are available for evacuation use? There should always be at least two stairwells in every high-rise.
- b. Are the stairwell doors kept free and unobstructed? Exit stairwell doors should be kept clear of tables, cabinets and other storage so that they may be used at any time. No storage is allowed under the stairwells or in any means of egress.
- c. Are emergency doors clearly marked and recognizable? All emergency exit stairwell doors and exitways should be visibly marked and easily distinguished.
- d. Do stairwell doors open and swing freely? Are they ever locked? Are they ever propped open? **ALL EMERGENCY EXIT DOORS SHOULD NEVER BE PROPPED OPEN AND SHOULD BE AVAILABLE AND USABLE AT ANY TIME THE BUILDING IS OCCUPIED.**
- e. Do stairwell doors completely close and latch after being released? All stairwell doors should completely close and latch when released to prevent the spread of fire and smoke through the stairwell.
- f. Are exit stairwell doors openable from within the stairwell? All exit stairwell doors must open from within the stairwell and must not lock behind you as you enter the stairwell from the floor.
- g. If the first choice of stairwells is unusable or unavailable, where is the alternate located? If there is no alternate stairwell, you need to know if there are two exits from your building. If there aren't, is there a second way out if the only stairwell is blocked by fire?

5. EVACUATION AID FOR THE ELDERLY AND PHYSICALLY HANDICAPPED

- a. Is there a current list of those persons who cannot evacuate without assistance? Emergency Evacuation Teams should be aware of those people and their locations if they cannot evacuate by themselves. This list will be given to fire department personnel upon their arrival to the building emergency.

6. LOCATION AND TYPE OF EMERGENCY LIGHTING/EXIT SIGNS/POWER

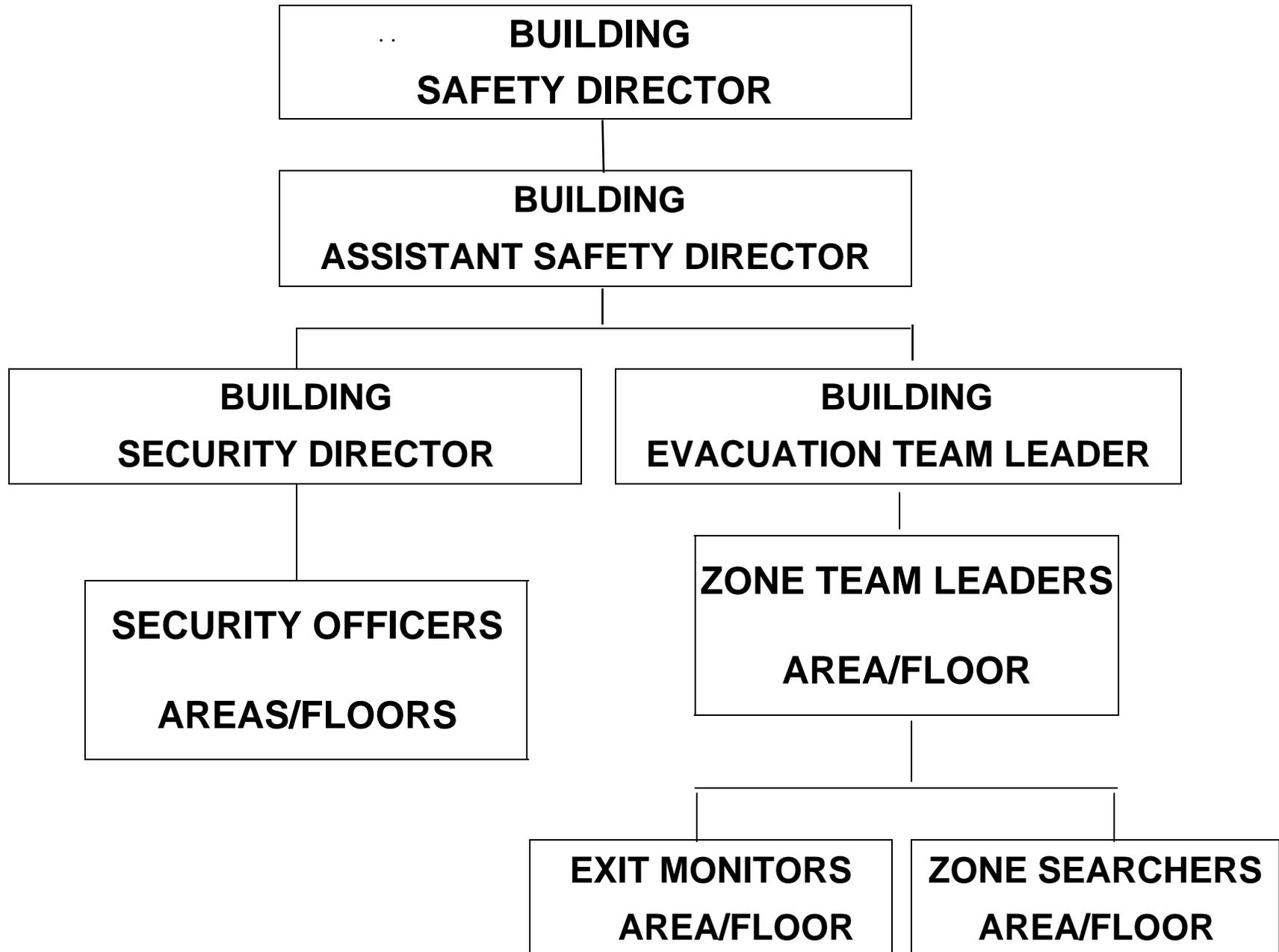
- a. What types of emergency lights are used? Are they automatic in case of power failure? All emergency power for lights, exit signs, elevators or other safety features should be of an automatic nature so there is no chance of human error.

- b. How often are the emergency power systems checked and tested? All emergency systems should be checked regularly by qualified personnel to ensure adequacy.

7. SPECIAL HAZARD AREAS

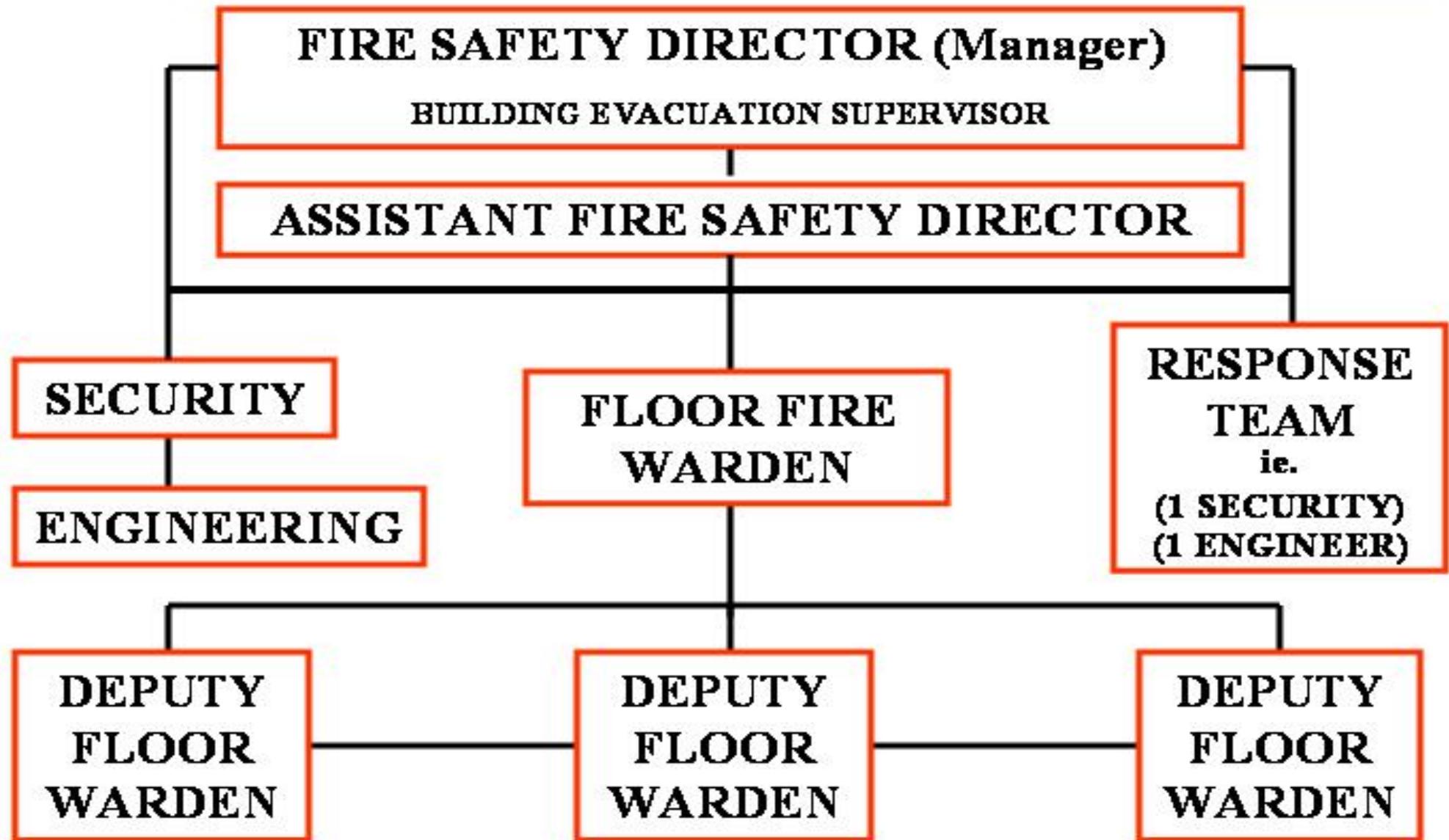
- a. If there are any special hazard areas in your building, where are they and are they safeguarded against occupants accidentally being exposed to them? Often there are areas in a building that are potentially dangerous to an unknowing occupant. These areas should be kept sealed and marked accordingly.
- b. If your building has trash chutes, the HOPPER DOOR SHOULD CLOSE AND LATCH BY ITSELF. The pressure created during the free burning stage of a fire may be enough to force open a poorly maintained trash chute and allow large volumes of smoke to penetrate an entire residential floor.
- c. Never allow any storage in an electrical meter room. Air handling rooms for air conditioning systems should be free from debris and potentially flammable materials. Roofs should be checked periodically for any debris which might blow off during a storm. Storage kept in a basement should be as neat and orderly as possible, and any flammable liquids should be stored in metal cans inside approved metal storage lockers and away from any possible sources of heat.

MULTI-STORY OFFICE BUILDING SAMPLE EVACUATION PLAN ORGANIZATIONAL CHART





MULTI-STORY RESIDENTIAL OCCUPANCY SAMPLE ORGANIAZTIONAL CHART FOR FIRE EMERGENCIES



RESOURCES

1. NFPA 101 Life Safety Code 1991 Edition
2. LIFE SAFETY STRATEGIES: How a Building's Designers and Users Can Work Together to Reduce the Risk of Death and Injury During a Fire, by Norman E. Groner.
3. GUIDELINES FOR AN EMERGENCY EVACUATION PLAN, City of Fort Worth Texas Fire Department.
4. LIFE SAFETY IN HIGH AND LOW-RISE BUILDINGS, by Eugene J. Joyce, Certified Protection Professional.
5. FIRE EVACUATION SKILLS: Cognitive-Behavioral Versus Computer-Mediated Instruction.
6. BERAP: Building Emergency Response Action Plan, by Jon O Wesley, Metropolitan Dade County Fire Rescue Department. Fire Prevention Division Chief Fire Marshall.
7. GENERAL FIRE DRILL EVACUATION, Metro Dade Fire Rescue Department
8. ACTIVE FIRE PROTECTION CONCEPTS FOR HOTELS. Willi E. Zeiss, Gamewell, 1985.