

Evacuation Plan

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Evacuation Plan

1. Introduction

This plan sets out the requirements, instructions, and procedures to be followed when an emergency is declared. It also defines the responsibilities and duties required of all personnel and the procedures to be followed when coordinating with the competent authorities responsible for emergency response. It further explains how to evacuate the facility, ensure the safety of its occupants, and take all necessary measures to provide them with reassurance and security, God willing.

The success of this plan depends on several factors. Most importantly, clear instructions, procedures, and equipment must be in place to organize how the emergency action plan is carried out. Equally important is the awareness of personnel and their cooperation with the instructions, procedures, and equipment established for their safety.

2. Definitions

The following are definitions of the key terms used in this plan:

- **Evacuation**

The transfer of people from locations exposed, or that have been exposed, to the hazards of wars, disasters, and various emergencies (natural, industrial, wartime, etc.) to safe locations.

- **Refuge Area**

An area at the end of an egress route that is protected from the effects of fire and separated from other areas of the building by fire-resistant barriers with a rating of at least one hour.

- **Means of Egress**

The safe route a person follows to escape from a building to a place of safety. It includes the travel paths used by building occupants from any point until they reach the open air outside the building or another safe location.

- **Occupant Load**

The total occupant load of a building, a floor, or a defined area on a floor is the maximum number of persons expected to occupy that building, floor, or area.

- **Hazard**

A source, condition, or act with the potential to cause harm that may result in injury, illness, harm, property damage, or possibly no consequence. The plural is "hazards," not "risks."

- **Risk**

The combination of the likelihood of a hazard occurring and the severity of the injury that may result from the incident. The plural is "risks."

3. Emergency Action Plan Objectives

The following are some of the key objectives of an emergency action plan:

- Prepare and be ready for emergency situations.
- Assess the readiness of facility personnel to follow safety instructions related to the emergency action plan.
- Ensure that clear procedures are in place for the safe evacuation of everyone, including persons with disabilities.
- Ensure that all building occupants are accounted for after the evacuation and have left the building safely.
- Prepare selected building occupants and assign them duties that support achievement of the emergency action plan objectives.

4. Emergency Action Plan Elements

4.1 Roles and Responsibilities

Safety is everyone's responsibility, whether at work, at home, or anywhere else. Nevertheless, work roles must be clearly defined so that personnel can communicate effectively and understand their roles and responsibilities.

- **University Administration**
 - Provide final approval of the emergency action plan and leadership support to ensure that the plan is properly planned and implemented.
- **Safety Department (or Section/Team)**
 - Plan, follow up, and supervise the implementation of instructions, systems, and plans related to the emergency plan.
 - Coordinate with stakeholders.
 - Coordinate the training required for the emergency plan.
 - Provide first aid and firefighting during emergencies and assist rescue teams.
- **University Personnel**
 - Understand the key requirements of the emergency plan in order to be prepared to deal with emergencies.
 - Participate actively and responsibly in implementing instructions and plans, including training and emergency drills, as required.
 - Inform and assist facility visitors in becoming familiar with emergency requirements and exits before and during emergencies.

• Evacuation Plan Management Team

This team consists of members of the Safety Department, along with representatives from other departments within the facility. Its main duties include:

- Maintain ongoing communication and cooperation on matters and elements related to the plan and emergency situations.
- Receive training in the fundamentals of occupational safety and health through the Safety Department.
- Carry out their duties in relation to the emergency plan and evacuation situations.

4.2 Safety Department Contacts

The following is a list of safety officials to contact in any emergency or for other matters related to facility safety:

- Director of the Safety Department

Phone	Name	Position	No.
11108		Director of Safety Department	1
15568		Assistant Director	2
14274		Evacuation Plans Supervisor	3

Safety Department personnel are the individuals authorized to prepare evacuation plans, supervise their implementation, and manage, monitor, and carry out the facility's emergency response activities.

4.3 Emergency Contacts

The following is a list of the responsible entities to contact in the event of an emergency:

Phone	Position	No.
19999	Monitoring and Control Unit (Emergency)	1
11108	Director of Safety Department	2
15568	Assistant Director of Safety Department	3
14274	Evacuation Plans Supervisor	3
998	Civil Defense	4
997	Saudi Red Crescent	6

4.4 Emergency Situations

The following emergency situations covered by this plan require activation of the facility evacuation plan when they occur:

- Explosion.
- Fire outbreak.
- Bomb threat.
- Leak of hazardous chemicals that threatens human health.
- Indoor air contamination.
- Structural or engineering defects in the building.
- Hostile activities.
- Health-related causes (such as the spread of epidemic viruses, infection, etc.).

4.5 Emergency Reporting Procedures

If the alarm bell is heard before any emergency is observed, the alarm is sufficient to begin the evacuation process (assuming that an alarm system is connected to a panel or control room that precisely identifies the source of the alarm).

If any person in the facility observes an emergency before the automatic alarm activates, or if no automatic alarm is available, the following actions must be taken:

- If manually activated alarm devices are available, they must be used immediately.
- Immediately contact the emergency officials using the direct emergency numbers listed in this guide.
- Contact other relevant authorities, such as Civil Defense, using the numbers listed in this guide.

4.6 Emergency Notification Channels

Several communication channels may be used to announce or alert occupants to an emergency or an evacuation drill.

- **Alarm Bell**

When an alarm system is installed in a building, the alarm bell is the primary means of warning of an emergency, particularly a fire. The required emergency actions must then be taken.

- **Loudspeakers**

If the facility has no alarm system, or if an emergency of one of the non-fire types listed above occurs, verbal emergency announcements may be made by Safety Department personnel or an authorized representative using the loudspeakers in control rooms, as the situation requires.

- **Telephones**

In some cases, Safety Department personnel or an authorized representative may need to use telephones as a means of providing an emergency warning whenever necessary.

4.7 Fire Extinguishers

All aspects of the facility's work environment must be assessed to identify the types of materials present and to determine and provide the appropriate fire extinguishers.

Fire extinguishers must be maintained periodically to ensure they remain serviceable. Maintenance must be performed twice a year (every six months), and a service or renewal tag showing the validity date must be affixed by an entity approved by Civil Defense.

The most commonly used fire extinguishers are listed below:

- **Water Extinguishers**

- Filled with water pressurized by an inert gas.
- Used to extinguish fires involving wood, paper, textiles, and plastics.
- Do not use on electrical devices or equipment connected to live electrical current.
- Do not use on fires involving oils, grease, or metals.

- **Foam Extinguishers**

- Filled with water and organic materials that produce foam.
- Used to extinguish fires involving oils, grease, paints, and petroleum.
- Do not use on devices or equipment connected to live electrical current.

- **Dry Chemical Powder Extinguishers**

- Filled with dry chemical powder.
- Used to extinguish fires involving petroleum products, paints, flammable liquids and gases, highly flammable materials, and metals such as potassium, magnesium, and sodium.
- Can be used on fires involving electrical devices and equipment, but may damage electrical equipment.

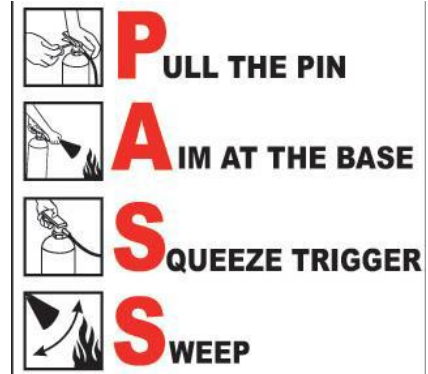
- **Carbon Dioxide Extinguishers**

- Filled with carbon dioxide compressed to the point of liquefaction.
- Used to extinguish fires involving oils, grease, paints, electricity, and highly flammable liquids.

4.7.1 How to Use a Fire Extinguisher

Use the PASS method, which is commonly displayed on many fire extinguishers:

- Pull the safety pin.
- Aim the hose/nozzle at the base of the fire.
- Squeeze the lever/trigger.
- Sweep the hose/nozzle from side to side.



4.8 Means of Egress

A means of egress is the safe route a person follows to escape from a building to a place where safety and security are available. It includes the travel paths used by building occupants from any point until reaching the open air outside the building or another safe location in the facility designated as an assembly point.

- Exit Access: The portion that leads to the entrance of an exit.
- Exit: The portion that leads to a safe area, a safe route, the exterior, or the exit discharge. It is separated from the rest of the building by a fire barrier in order to provide a safe travel path.
- Exit Discharge: The portion beginning at the end of an exit and leading to an exterior location, street, walkway, public area, open space designated for refuge, or the evacuation (refuge) area.

4.8.1 Basic Requirements for Means of Egress

- Adequate and suitable exits must be available to allow all building occupants to evacuate and escape during emergencies.
- Materials used in constructing the building must not create a hazard to occupants while they are escaping.
- Locks or other devices that prevent escape during emergencies are not permitted.
- Means of egress must be clear and known to building occupants.
- The width of an egress route must not be less than 28 in. (70 cm).
- The clear height of any part of a means of egress must not be less than 7 ft 6 in. (215 cm).
- The clear height from the floor to any projections or suspended items below the ceiling (such as a light fixture) must not be less than 6 ft 8 in. (2 m).
- Any door or route that is not part of the means of egress must have a sign stating "Not an Exit."
- Adequate lighting must be provided near egress exits and supplied by an additional power source besides normal electricity, or connected to the standby generator, so that illumination at floor level near the exit is not less than 5 foot-candles.

4.8.2 Emergency Exit Protection

Emergency exits must be free of obstructions and open in the direction of egress. They must also be separated from the rest of the building (facility) by providing fire protection for the exit as follows:

- For buildings of three stories or fewer, construction materials must provide at least one hour of fire resistance.
- All doors must be made of fire-resistant materials (fire doors) and must close automatically.
- Escape stairs must be maintained at positive pressure relative to the rest of the building to prevent smoke from entering during a fire.

4.8.3 Width of Means of Egress

- Means of egress are calculated in units, with each unit having a width of 22 in. (56 cm).
- The permitted capacity of each exit unit is 100 persons per unit for level routes and 60 persons per unit for sloped routes.
- Sloped routes are of two types:
- Type A ramps: the slope must not exceed 1.1875 in. for every 12 in. of length, and the width must be at least 44 in. (112 cm).
- Type B ramps: the slope is between 1.1875 and 2 in. for every 12 in. of length, and the width is between 30 and 44 in.

4.8.4 Egress Capacity and Occupant Load

The total occupant load of a building, a floor, or a specific area on a floor is the maximum number of persons expected to occupy that building, floor, or area. Estimating the total occupant load is important and necessary for carrying out the design calculations required to meet means-of-egress requirements. The total occupant load of a building or floor is estimated by dividing the total area of the building or floor by the expected area per person.

4.8.5 Number of Emergency Exits

- A minimum of two exits is required for occupancies of 50 to fewer than 500 persons.
- At least three exits are required for occupancies of 501 to 1,000 persons.
- At least four exits are required for occupancies of more than 1,000 persons.

4.8.6 Emergency Exit Locations

The distance between two emergency exits in any building or floor must not be less than one-half of the larger diagonal dimension of the building or floor.

4.8.7 Travel Distance to an Emergency Exit

- The travel distance is the length of the access path from any point in the building to the entrance of the exit.
- In buildings not protected by water sprinklers, this distance must not exceed 200 ft (60 m).
- In buildings protected by water sprinklers, this distance must not exceed 250 ft (76 m).

4.8.8 Assembly or Evacuation Areas

- The evacuation area must be located in an open space away from the affected building.
- A primary and a secondary evacuation area must be designated as a contingency in case the primary area cannot be used during an evacuation.
- More than one evacuation area may be designated for a building, depending on the size of the building and the locations of emergency exits.
- An initial evacuation area may also be designated and may be used to evacuate persons with disabilities.

4.9 Evacuation of Persons with Disabilities

There are general instructions that persons with disabilities should be aware of, and that the Safety Team should communicate to persons with disabilities and other facility occupants, including the following:

- Become thoroughly familiar with the evacuation plan and means of egress.
- For any questions concerning safety in general or the emergency plan, contact the Safety Department to request clarification, assistance, or guidance.

Several methods may be used to evacuate persons with disabilities, in the following order of priority:

- **Horizontal Evacuation**

If the person is on a floor that leads directly to the exit and evacuation area.

- **Stair Evacuation**

If the person is on a floor that does not lead directly to the exit and evacuation point, the stairs must be used to reach the floor that leads directly to the exit and evacuation area.

- **Initial Refuge Area**

If an initial refuge area is available, the person should proceed to it when physically able and when the area is sufficiently far from the hazard, and should communicate, whenever possible, with the Evacuation Plan Management Team.

- **Remain in Place**

If there is no immediate danger and the person does not have sufficient ability to escape, the person should remain in a location with a window, a telephone, and a fire-resistant door, and communicate with the Evacuation Plan Management Team.

- **Wheelchair Users**

If a person with a disability uses a wheelchair, the following actions must be taken:

- Assign a capable person to accompany and assist the wheelchair user along the means of egress when the person is on the floor that leads directly to the exit and evacuation area.
- Assign a capable person to accompany and assist the wheelchair user to the initial evacuation area when the person is on a floor that does not lead directly to the exit and evacuation area.

In all cases, the Evacuation Plan Management Team must confirm the locations of persons with disabilities, whether they are in the primary, secondary, or initial evacuation area or in a room, by assigning a designated person to follow up with them during the emergency.

4.10 Evacuation Drill

- An evacuation drill must be conducted at least once a year and carefully coordinated, taking all stakeholders into consideration.
- An emergency scenario must be prepared and implemented while the teams' reactions and the behavior and actions of personnel are observed.
- The results must then be analyzed, and the drill and team performance evaluated to identify shortcomings and use any issues identified to develop appropriate solutions and prevent recurrence in the future.

5. Evacuation Procedures

The success of the evacuation plan depends on cooperation among all parties. It also depends on the training and knowledge of the Safety Department team (and the Evacuation Plan Management Team) responsible for emergencies and evacuation plans, and on their ability to respond promptly and effectively to emergencies and contain their impact. It also depends on the methods, procedures, and equipment that must be available to support a successful evacuation during emergencies.

5.1 Evacuation Instructions

- Building occupants must be notified of the need to evacuate through the emergency notification methods described in this plan.
- When the fire alarm is heard or instructions are received to evacuate the building through any of the emergency notification methods described in this plan, all building occupants (employees, students, visitors, and other persons present) must evacuate immediately and proceed to the pre-designated assembly point using the means of egress.
- Building occupants must also ensure that their visitors comply with the evacuation procedures stated in this plan and leave the building with all other occupants.
- Contract workers must be informed of the procedures stated here and must leave the building (facility) whenever any of the emergency notification methods described in this plan are activated.

5.2 Duties of the Evacuation Plan Management Team

Immediately upon an emergency announcement through the methods described in this plan, the Evacuation Plan Management Team or teams must be activated and the evacuation process must begin by carrying out the following duties:

- Be present in the building or affected floor and guide building occupants to the means of egress.
- Maintain morale, reassure building occupants, and provide first aid as needed and as the situation allows.
- Ensure that all occupants have left the building or floor.
- Assist in accounting for building occupants who have evacuated and are present at the assembly or evacuation point.
- In the event of a fire, fight the fire and assist firefighting teams as needed and in accordance with the directions of specialized rescue teams.

5.3 Duties of Other Personnel

When personnel become aware of an emergency through any of the emergency notification methods described in this plan, they must:

- Stop work immediately, remain calm, and avoid panic.
- Do not ignore any emergency notification issued through the methods described in this plan.
- Close doors and windows when leaving, if the situation allows.
- Switch off all electrical equipment, if the situation allows.

- Leave the building immediately and in an orderly manner using the nearest means of egress designated for evacuation.
- Do not use elevators, as they have proven unsafe during emergencies; use the stairs when necessary.
- Proceed to the designated assembly or evacuation area. If the assembly area is unsafe or inaccessible because of the emergency, proceed to the alternate assembly area.
- Inform your Safety representative or Evacuation Plan Management Team representative that you are present at the assembly point.
- Follow the instructions of Safety supervisors or representatives, or of the Evacuation Plan Management Team.
- Do not return to the building unless the Safety Department (or the authorized entity) declares that it is safe to do so. The fact that the alarm has stopped does not mean that the emergency is over.

5.4 What to Do in Case of Fire

The following actions apply to the Safety Department, Safety representatives, the Evacuation Plan Management Team, and all employees or building occupants:

- Remain calm and avoid panic.
- Activate the manual fire alarm call point if the alarm has not been activated automatically.
- Notify the Safety Department immediately using the emergency number listed in this plan.
- Fight the fire, if possible, using the nearest fire extinguisher suitable for the type of fire.
- Make sure that your location does not expose you to danger and that you are able to escape if the fire spreads.

If you are trapped by the fire and cannot leave, follow these instructions:

- Remain inside the room or office and close the doors.
- Seal the gap beneath and around the door with a wet cloth to prevent smoke from entering.
- Stay low, as fire spreads upward.
- Cover your mouth with a wet cloth.
- Stay as close as possible to a window.
- Use a means of signaling through the window to alert rescue teams that you are in that location.