# **DOCUMENT 3**

**EMERGENCY RESPONSE MANUAL** 

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#### 3. EMERGENCY RESPONSE MANUAL

#### 3.1. OBJECTIVES

One of the objectives of the Self-Protection Plan is to safeguard the physical integrity of the occupants of the building, including staff and the center's users, whenever an emergency arises.

Any effort aimed at handling an emergency must have as its fundamental premise the prior adoption of a series of preventive measures defining the orderly steps to follow, in a logical and effective manner, in the face of an unforeseen event. To that end, the general procedures to follow must be defined and expressed in a simple and orderly manner, in terms of immediate response measures, while awaiting the arrival of outside assistance.

#### In this document:

- A scale of severity levels for emergencies is defined
- The internal emergency teams are defined, as well as the general duties of the personnel that constitute them
- The steps to follow under each type of emergency are defined
- The procedures to follow under each of the foreseen emergencies are described

## 3.2. IDENTIFICATION AND CLASSIFICATION OF EMERGENCIES

For the purposes of this project, "Emergency" is defined as any undesirable situation that may endanger the physical integrity of people or their property and which requires specific action to counteract.

# 3.2.1. By Level of Severity

Emergencies can be classified according to the degree of difficulty in managing them, as well as by the severity of their potential consequences.

#### 3.2.1.1. Minor Incident/Initial Outbreak

This type of incident is one that can be easily and quickly controlled and overcome by internal personnel using on-site measures of protection for the building complex, locale, or area.

Its **consequences are minor in nature**, such that evacuation or sheltering-in-place are not necessary, and recovery of normal activity is immediate.

## 3.2.1.2. Partial Emergency

This type of incident is one that requires the use of dedicated response teams for the area or zone in question in order to manage and overcome the emergency. The effects of a partial emergency are limited to a single area, and will not affect adjacent ones or third parties.



Partial evacuation to other zones or areas in the building complex may be necessary, and the situation may be hazardous for humans.

## 3.2.1.3. General Emergency

This type of incident is one that requires a full response using all the response teams, equipment and means of protection available on-site in the building, as well as the help of outside emergency and rescue services.

A General Emergency will involve the Evacuation of people from certain zones or areas, including evacuation of the entire structure.

## 3.2.2. By the Nature of the Emergency

The emergency situations that can potentially occur in the facilities of the current buildings, listed by the nature of the threat, are:

	Warning/Alert	Emergency	
Fire	- Combustion within a waste bin or similar.	Fire in an area of risk (facilities cabinets and rooms, warehouses, kitchens, etc.) Fire that spreads to more than one area or sector at full occupancy.	
Explosion	- Fire alarm in any danger zone with risk of explosion.	Explosion in any area of the buildings.	
Power failure	- Loss of electrical power leading to failure of emergency supply systems.	<ul> <li>People trapped in elevators.</li> <li>Stoppage of the ventilation systems for car parks and the evacuation of smoke and fumes.</li> <li>Stoppage of the firesuppression water pumping system.</li> </ul>	



	Warning/Alert	Emergency	
Elevator accident	- Defective elevator braking system.	- Elevator fall.	
Public disturbance	<ul> <li>Altercation among workers or a small group of people.</li> <li>Mild worker protest in the buildings.</li> <li>Demonstrations and protests outside the building.</li> </ul>	<ul> <li>Altercation involving multiple individuals.</li> <li>Violent worker protest.</li> <li>Attempts to occupy the building.</li> </ul>	
Work accident	<ul> <li>Worker doing work on electrical installations or generator bank.</li> <li>Worker carrying out a task at height.</li> </ul>	<ul> <li>Explosion in generator room or other high-risk rooms.</li> <li>Loss of electrical power.</li> <li>Fall of worker from a height.</li> </ul>	
Bomb threat	- Bomb threat received.	- Verification of the existence of a bomb.	
Heavy winds or tornadoes	- Strong wind or tornado warning.	- An actual tornado.	
Outdoor fire or toxic cloud	- Outdoor fire or toxic cloud warning.	<ul><li>Existence of a nearby outdoor fire.</li><li>Existence of a toxic cloud.</li></ul>	
Major snow and ice	- Heavy snow and ice warning.	- Heavy snowfall or freezing.	
Earthquake	- Risk of earthquake warning.	- Earthquake.	
Flood	- Flood risk warning.	- Ground floor or basement flooding.	

# 3.2.3. By the occupancy level and available human resources

Taking into account the normal activity of both buildings, from which the occupation and the human resources available to deal with emergencies are derived, the level of risk classification is as follows:



- During working hours and/or events
- Outside working hours

This classification does not depend on whether or not the date of the incident is a holiday or business day, since building occupancy varies regardless of this factor.

#### 3.2.4. In the event of simultaneous emergencies in both buildings

#### 3.2.4.1. Introduction

Although the two buildings in question are physically separate, their management and commercial use pertains to the same owner. Some events hosted by the owner of the building complex alternate the use of both buildings, while other events may coincide, simultaneously using all the available space, in which case it is very likely that each event will have intrinsic characteristics substantially different from the others (size, duration, attendee profiles, peak hours, etc.).

Their particular characteristics, the environment in which the events are located, their proximity to each other, and their **physical connection** through an underground corridor/tunnel make it possible, although unlikely, that entirely different types of emergency can arise simultaneously, each totally different from that of the other building.

Although the probability is low, the consequences of a simultaneous emergency in each of the two buildings can be very serious.

For the purposes at hand, although leisure activities and shows are generically classified as a single type of event, the holding of a concert in the Forum Auditorium complex, with the audience seated, has very little to do with the staging of a trade show or fair in the Barcelona International Convention Center (CCIB), in this case with a standing audience.

Each building has a hazard and emergency response manual, which share several common points, and also several differences. The following table lists the manual contents in line with the hazard assessment methods included in DOCUMENT No. 1.



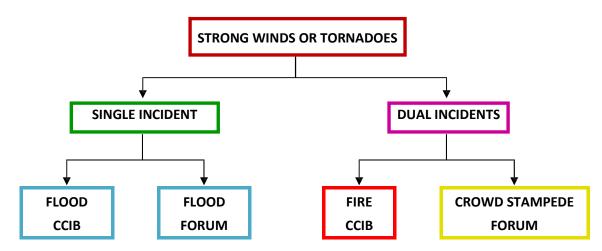
		SEVERITY		
		Slightly Hazardous	Hazardous	Very Hazardous
PROBABILITY	Low	TRIVIAL Risk	TOLERABLE Risk	MODERATE Risk
	Average	TOLERABLE Risk	MODERATE Risk	HIGH Risk
	High	MODERATE Risk	HIGH Risk	INTOLERABLE Risk

TABLE	TABLE FROM HAZARD & EMERGENCY MANUAL FOR EACH BUILDING AND EACH ASSOCIATED RISK LEVEL			
			FORUM	
	Fire	MODERATE	MODERATE	
	Explosion	TOLERABLE	TOLERABLE	
A	Disruption of public order	TOLERABLE	TOLERABLE	
ER	Elevator fall	TOLERABLE	TOLERABLE	
INTERNAL	Power failure	TRIVIAL	TRIVIAL	
_	Human stampede	TOLERABLE	MODERATE	
	Occupational hazard	TOLERABLE	TOLERABLE	
	Bomb threat	MODERATE	MODERATE	
7	Heavy winds or tornadoes	MODERATE	MODERATE	
RZ Z	Snow and ice	TOLERABLE	TOLERABLE	
EXTERNAL	Outdoor Fire or Toxic Cloud	TRIVIAL	TRIVIAL	
	Flood	MODERATE	MODERATE	
	Earthquake	TOLERABLE	TOLERABLE	

A situation involving "strong winds or tornadoes" can develop into a simultaneous emergency in both buildings. It is possible that the ongoing development of one emergency leads to one of the following outcomes:

- Single incident: SAME TYPE OF EMERGENCY in each building.
- **Dual incidents**: DIFFERENT TYPE OF EMERGENCY in each building.

## **EXAMPLE OF SIMULTANEOUS EMERGENCIES IN BOTH BUILDINGS**





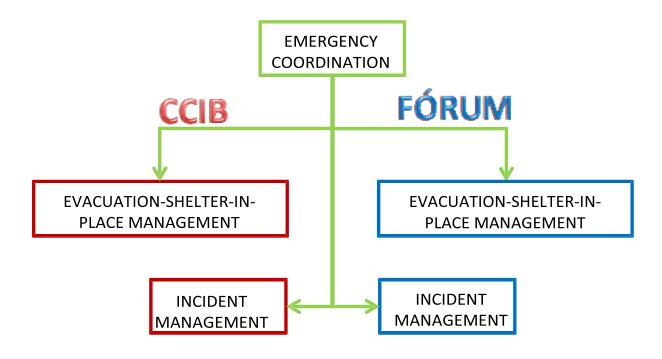
From the above, should the need arise, it is imperative there be an appropriate response to the type of emergency in each building, but if they occur simultaneously, the response must be **COORDINATED AND SYNCHRONIZED** to avoid having the impact of the emergency in one building adversely affect the other building and/or emergency itself.

However, the singular characteristics of each building, and the physical separation between them, means that it is essential that the organizational structure be able to provide a suitable response to the nature of the local emergency. This level of response must be carried out **in situ**; that is, in each of the two buildings. This facet of organizing emergency responses is a **MANAGEMENT-LEVEL** responsibility.

At the base of the organizational chart for responding to emergencies are the human and material resources with which to **RESPOND or intervene**, applying the specific procedures suitable for the nature of each emergency and its location (for example - a fire is treated differently than a bomb threat). For each emergency situation foreseen, a specific action plan has been developed, adapted to the circumstances and potential hazards that can arise as a result.

The methods applied in each situation should always take into account the **human factor**, allowing for a small margin of variation in the performance of each procedure, introducing enough flexibility such that the method allows for the most appropriate use of the **TECHNIQUES** that each specific response requires.

This is reflected in the following chart:





#### 3.2.4.2. Single Incidents

These are emergencies that, when they occur, will affect both buildings similarly, since it is foreseeable that the consequences of the emergency will have the same or very similar effect on the buildings and their occupants.

The actions to be carried out by the emergency teams and the occupants of both buildings are practically the same, except for some possible variation in the application of some protocol if a specific case requires it, but it is expected that the latter would be the exception and not the norm.

#### 3.2.4.3. Dual Incidents

Although unlikely, it is possible that different events are being held at the same time in each building, and that two or more emergencies occur simultaneously, differing in their typology and/or severity. This requires different types of response (for example - fires vs. public disturbances) logically managed in a different manner. The **differentiated management of two or more simultaneous emergencies** does not imply, however, any lack of coordination and synchronization in managing the responses to them.

Although the probability of different yet simultaneous emergencies occurring in both buildings is considered to be very low, it cannot be entirely dismissed, given the GRAVITY of the consequences of a "DUAL-INCIDENT" emergency, which requires coordination and synchronization of the different management teams for each emergency in order to avoid overlaps that may occasion negative side effects.

An example of a negative side effect could be that of the evacuation of some of the occupants of one building through the underground tunnel to the other building, which in turn is also experiencing an emergency situation.

#### 3.2.4.4. Coordination of Simultaneous Emergencies

Irrespective of the foregoing, whatever the case, the coordination of emergencies will always be unique to their nature. Regardless of the type of emergency that may affect either building, or the activities they may be hosting at the time, EMERGENCY COORDINATION should always be carried out **by a single person/team**, such that the duplication of efforts shall at no time have a negative impact on resolving the situation.

**Emergency response coordination** must be performed by an individual with an excellent familiarity with both buildings, possessing the appropriate training and professional capacity for that position. This responsibility lies in first instance with the **Emergency Chief**, and through him/her on the **Response Chief** and the **Evacuation and Shelter-In-Place Coordinator**.

#### 3.2.4.5. Response Priority

It is the responsibility of the **Emergency coordinator**, in the case of a "DUAL-INCIDENT" emergency, to assess the priority that should be given to each of them. This is especially true for making decisions that may potentially influence the progress or outcome of the emergency in the other building. An example of the need to prioritize some measures over others would be the use of the underground tunnel to evacuate people from one building to the other.



#### 3.3. EMERGENCY RESPONSE TEAMS

#### 3.3.1. Definitions

An EMERGENCY RESPONSE TEAM is defined as that group of people who comprise the specially trained and organized team for the prevention of and response to emergencies and accidents in the entire complex.

#### 3.3.2. General Mission of Emergency Response Teams

The duties assigned to each emergency response team are summarized below for the following types of response or action:

#### Prevention

To take all necessary precautions to prevent the conditions that can give rise to the onset of an emergency.

To that end, each team member will have to:

- Be informed of and trained in the general and specific hazards involved in the various response procedures.
- Flag anomalies and ensure that they have been resolved.
- Not engage in reckless or negligent behavior.
- Be familiar with and know how to interpret cracks, abrasions, leaks, and strange noises in the operation of equipment and machinery in the building complex, etc.
- Be able to detect and identify fumes and burning odors, flammable gases or vapors, and/or overheating motors, electrical panels, wiring, and so on.

#### **Evacuation**

This involves instructing occupants to evacuate the building while keeping calm and following the evacuation signs, as well as providing guidance along the way, in order to evacuate the building via the exit nearest to the Meeting Points located outside the buildings.

#### Shelter-In-Place

This involves instructing occupants that they should remain in the interior of the Building until further notice whenever conditions existing outside the building are not sufficiently suitable for evacuation at that time.

Simultaneously, they shall also take the necessary measures to prevent outdoor fumes or gases from entering the Building, closing all openings connecting with the exterior, and shutting down the ventilation system (air extraction and discharge).

During sheltering-in-place, they will perform periodic checks to ensure that an "airtight" condition is maintained.



#### Response

Each team member must know the appropriate means of response in the face of emergencies, the location of any needed equipment, and how to use it. They should also know how to:

**FIRST** - Suppress without delay the cause provoking an anomaly:

- In terms of indirect action, alert the persons designated in the emergency manual.
- Know how to take direct and rapid action (cut power locally, close gas mains, isolate flammable materials, and so on).

**SECOND** – Respond to any incident from the moment it is detected:

- Sound the alarm
- Apply the guidelines provided in the Self-Protection Plan and/or IMPLEMENT THE RECOMMENDED EMERGENCY RESPONSE PROCEDURES.
- Act to suppress the incident with the available means for early intervention until reinforcements arrive.

**THIRD** - Avoid propagation of the hazard. Take the necessary measures to prevent the incident from becoming a major one, particularly in the case of fire:

- Close doors and windows; shut off ventilation systems.
- Remove or cool off combustible, flammable or explosive materials, etc.

## 3.3.3. Alarm, Communications, and Security Control Center Officer

This team and its leader, permanently staff the **Alarms and Security Control Center**, and monitor the effectiveness of detection methods, alarms, or emergency warnings, and communications (telephones and internal lines).

In an emergency situation, this team falls under the authority of the Emergency Chief, and they use the appropriate information regarding the response measures for the various stages of the emergency situations that arise.

For more information, see Document 1, Item 1.5.4: Self-Protection Organization Chart, Annex IV: Standard Operating Procedure (SOP) Forms, and Annex V: Procedural Flowchart.

## 3.3.4 Emergency Chief

## **EMERGENCY CHIEF (EC)**

In case of emergency, the **Emergency Chief** takes command and directs all tasks pertaining to direct and/or indirect measures taken in response to the emergency.

- The Response Chief reports directly to this position.
- In case of multiple events in the buildings, the Evacuation and Shelter-In-Place Coordinators also report directly to this position.
- In the event there are no events in the buildings, the Evacuation and Shelter-In-Place Officer reports directly to this position.



Under normal conditions, the Emergency Chief performs the following tasks:

- Prepare and put into action the program of measures and means for emergency response that are in place for the building complex, informing executive management about the level of intervention and resulting degree of effectiveness.
- Organize and train the various teams, with the assistance of the Response Chief and the E&S Officer. Prepare and coordinate the training sessions for emergency response, supervising the sessions and practices that are carried out.
- Prepare, organize, and supervise the drills that take place in the building complex.
- Prepare and draft the reports on any incidents, in collaboration with the Response Chief and E&S Officer.

For more information, see Document 1, Item 1.5.4: Self-Protection Organization Chart, Annex IV: Standard Operating Procedure (SOP) Forms, and Annex V: Procedural Flowchart.

## 3.3.5. Emergency Response Team Roles & Responsibilities

#### 3.3.5.1. Response Chief

#### **RESPONSE CHIEF (RC)**

In case of an emergency, the **Response Chief** determines the nature of the emergency in coordination with the Emergency Chief, manages and directs the operations in response to the incident, and coordinates all the response teams.

Under normal conditions, the Response Chief performs the following tasks:

- Stimulates the interest of and promotes cooperation on the part of the employees in matters relating to Prevention of Occupational Hazards.
- Analyzes and assesses the risk of incidents that may occur in any place and under any foreseeable circumstance, and proposes corrective measures in response.

#### 3.3.5.2. Composition of the Response Team

## FIRST RESPONSE TEAM (FR Team)

This team is comprised of at least two (2) people who are charged with taking immediate action with the means available whenever an emergency arises, in order to control, eliminate or totally suppress the incident.

#### **SECONDARY RESPONSE TEAM (SR Team)**

This team is comprised of at least three to four (3-4) people during normal working hours. Outside working hours, or whenever the secondary intervention team is not available on the premises, the Barcelona Municipal Fire Department is in charge of providing this response.

In the event of an alarm due to a partial or full emergency, this team responds using all available means for the sector or zone in question in order to achieve the effective extinction of the fire, or the control, elimination or total suppression of the incident.



For more information, see Document 1, Item 1.5.4: Self-Protection Organization Chart, Annex IV: Standard Operating Procedure (SOP) Forms, and Annex V: Procedural Flowchart.

#### 3.3.6. Evacuation and Shelter-In-Place Team

Given the characteristics of the buildings, in which one or more simultaneous high attendance activities can be carried out in different areas of the building and in both buildings at the same time, it has been considered necessary to have an **Evacuation and Shelter-In-Place Officer** (**E&S Officer**) for each event or occupied area of buildings, and an **Evacuation and Shelter-In-Place Coordinator** (**E&S Coordinator**) who directs the activities of each of the area **E&S Officers**.

If several events or activities are not being held in the buildings at the same time, or if more than one area is not in use, the role of E&S Coordinator ceases to exist, such that a single designated Officer will be in charge of Evacuation and Shelter-In-Place for the buildings.

#### 3.3.6.1. Evacuation and Shelter-In-Place Coordinator

# **EVACUATION AND SHELTER-IN-PLACE COORDINATOR (E&S COORDINATOR)**

Whenever there is more than one simultaneous event, in case of an emergency, the E&S Coordinator will contact each of the E&S Officers (tasked with Evacuation and Shelter-In-Place duties for a single event or zone) and inform the Emergency Chief of the status of occupation in each one, assessing together with him/her the suitability of the measures to take.

The E&S Coordinator will manage and direct the operations of the Evacuation and Shelter-In-Place Officers in collaboration with the Response Chief.

Under normal conditions, the E&S Coordinator performs the following tasks:

- Stimulates the interest of and promotes cooperation on the part of the employees in matters relating to Labor Risk Prevention.
- Analyzes and assesses the risk of incidents that may occur in any place and under any foreseeable circumstance, and proposes corrective measures in response.

## 3.3.6.2. Evacuation and Shelter-In-Place Officer

#### **EVACUATION AND SHELTER-IN-PLACE OFFICER FOR AN EVENT OR AREA (E&S OFFICER)**

Whenever there is more than one simultaneous event or a single major event that takes place in more than one area of the buildings, in case of an emergency, the E&S Officer will inform the E&S Coordinator of the status of occupation in each one, assessing together with him/her the suitability of the measures to take.

The E&S Officer will manage and direct the operations of the E&S Teams in his/her area, in cooperation with the Response Chief.



#### **EVACUATION AND SHELTER-IN-PLACE OFFICER FOR THE BUILDING COMPLEX (E&S OFFICER)**

Whenever there is a single event, or no events at all, in the event of an emergency, the E&S Officer will inform the Emergency Chief of the status of occupation in each building, evaluating with him/her the suitability of the measures to take.

The E&S Officer will manage and direct the operations of the E&S teams in collaboration with the Response Chief.

Under normal conditions, the E&S Officer performs the following tasks:

- Stimulates the interest of and promotes cooperation on the part of the employees in matters relating to Labor Risk Prevention.
- Analyzes and assesses the risk of incidents that may occur in any place and under any foreseeable circumstance, and proposes corrective measures in response.

#### 3.3.6.3. Alarm, Evacuation and Shelter-In-Place Teams

#### ALARM, EVACUATION AND SHELTER-IN-PLACE TEAMS (E&S TEAMS)

These teams are responsible for ensuring that the evacuation or sheltering-in-place of the occupants of the affected areas proceeds in an orderly manner and, in case of a General Evacuation, for the reception of said occupants at the corresponding Meeting Points.

For more information, see Document 1, Item 1.5.4: Self-Protection Organization Chart, Annex IV: Standard Operating Procedure (SOP) Forms, and Annex V: Procedural Flowchart.

#### 3.3.7. First Aid Team

#### 3.3.7.1. First Aid Coordinator

#### FIRST AID COORDINATOR (FA COORDINATOR)

The **First Aid Coordinator** is a person with a solid command of first aid practices, and during an emergency is in charge of organizing the delivery of first aid to those who need it.

In coordination with the Emergency Chief, the FA Coordinator requests outside medical assistance whenever necessary. He/she coordinates with the medical emergency services on their arrival on the premises.

Normally, the FA Coordinator is responsible for keeping the database of specialized assistance centers (severe burns, traumatic injuries, etc.) updated, in collaboration with the GL Events Prevention Service.

#### 3.3.7.2. First Aid Team

## **FIRST AID TEAM (FA TEAM)**

These are people who possess a basic command of first aid practices, delivering first aid to the wounded and any others in need of assistance.



For more information, see Document 1, Item 1.5.4: Self-Protection Organization Chart, Annex IV: Standard Operating Procedure (SOP) Forms, and Annex V: Procedural Flowchart.

## 3.3.8. Support Teams

#### **TECH SUPPORT TEAM (TS TEAM)**

This team is comprised of the maintenance staff of the company, and its duty is to provide technical support for the Emergency Chief and the Response Chief(s) regarding power equipment and supplies affected by the emergency.

# **EXTERNAL COMMUNICATION AND PUBLIC RELATIONS TEAM (PR TEAM)**

In case of major emergencies, this technical support team, made up of members of executive management, has as its main duty to interact with the authorities, the media, legal affairs institutions, and insurance companies.

For more information, see Document 1, Item 1.5.4: Self-Protection Organization Chart, Annex IV: Standard Operating Procedure (SOP) Forms, and Annex V: Procedural Flowchart.

#### 3.3.9. Overview of the Hierarchy of Emergency Response Teams

The Organizational Charts presented in Document 1, section 1.5.4 of this Self-Protection Plan illustrate the organization and reporting hierarchy for emergency response teams corresponding to those instances when either there are, or are not, events taking place in the buildings.

In any case, the principal line of command and the office which takes precedence over all other Emergency Team leaders is that of the Emergency Chief.

Each person in charge will have the corresponding teams assigned to him/her depending on the activities that are taking place in each building. These teams will be designated during the project planning phase for each event.

#### 3.4. EMERGENCY RESPONSE PROCEDURES

A summary of the specific actions to be carried out by each member of the emergency teams is provided in Annex IV, Standard Operating Procedure (SOP) Forms, and in Annex V, Procedural Flowchart, attached to this Self-Protection Plan.

#### 3.4.1. Detection and Alarms

An alert or alarm consists in notifying the Security Control Center (PPS) about the outbreak or onset of an incident, detected either automatically or manually, which is done by using the alarm buttons, the telephone, a walkie-talkie, or in person.

Giving such notice acts as the order to put the Emergency Response Plan into action and, if necessary, to alert staff members of the emergency teams.



An EMERGENCY NOTIFICATION system can take the form of:

- a) Activation of the automatic fire alarm, issuing an alert to the Command Center, as well as to outside emergency response center.
- b) Notice is given to the Security Control Center (PPS), via telephone, walkie-talkie, or by any other means available, of the outbreak of an incident or onset of an emergency, by the person who discovers the incident.
- c) An alarm button closest to the place of the incident is tripped by the person who first discovered the incident.

Upon receiving emergency notification, the Security Control Center (PPS) operator shall alert the Emergency Chief, the Response Chief, the E&S Coordinator or Officer for the affected event or area, and any ER Teams required, in accordance with established methods and procedures.

In cases of emergency due to natural causes, detection and warning would have been communicated to the general public by the authorities prior to the emergency. In these cases, the internal emergency team must be prepared for immediate action.

#### 3.4.2. Communications and Alerts

The procedure to give the alarm is described next, along with the means and equipment to be used to carry out such communications in an efficient way, for both the CCIB and the Auditorium Forum.

Working hours and/or during the celebration of events. – Includes the normal office hours in the building complex; namely, Monday through Thursday, from 09:00 to 13:30 and from 14:30 to 18:30, and Fridays, from 09:00 to 15:00.

For the purposes of communications and alerts arising from an emergency situation, "working hours" is understood as the period of time during which any event is held, regardless of the day of the year, including the time dedicated to setting up and dismantling that event.

**Outside working hours** – Nights and holidays, and from 13:30 to 14:30 daily, at which times there are no company staff present, and no events are being held. There is only security personnel on the premises during these times.

## 3.4.2.1. Person in Charge of Sounding Alerts

The person who sounds internal and external warnings is the Security Control Center (PPS) operator, or a person authorized to do so by the Emergency Chief.

## 3.4.2.2. Emergency Warning Procedures

In the following sections, the example below is used to illustrate the activation of emergency warning procedures: a FIRE emergency. **Bear in mind that the warning procedure for any emergency is identical.** 



## During working hours and/or during an event

# **I. Emergency Alerts**

Anyone who detects a fire emergency must:

- Notify the rest of the people who occupy the building complex, at which point everyone should proceed to evacuate, leaving the door(s) closed (unlocked).
- Sound an emergency alert by:
  - Making a telephone call, personal visit, or call by walkie-talkie to the Security Control Center (PPS).
  - Pressing the nearest alarm button.
- Upon receiving notice, the Security Control Center (PPS) operator will, by telephone:
  - Notify the Emergency Chief.
  - Notify the Response Chief.
  - Notify the E&S Coordinator or, in his/her absence, the E&S Officer for the event or zone.

#### **II. Partial Emergency Alerts**

A Partial Emergency Notification is made by express order of the Emergency Chief.

The Security Control Center (PPS) operator will then:

- Notify the "Centre d'Atenció e Gestió de Trucades d'Urgència" 112 (Public Emergency Response Service). He/she will then read the statement shown in **ANNEX II.**
- The Security Control Center (PPS) operator, or the person designated by the Emergency Chief will notify the respective SR Team members for that floor by telephone, walkietalkie, or in person.

Should the evacuation or sheltering-in-place of the occupants of an event or zone of the building be necessary, the Emergency Chief, together with the E&S Coordinator, will order the E&S Officer for the event or zone to take action. The order may be given:

- In person
- By phone
- By activating an alarm button

## **III. General Emergency Alerts**

A General Emergency Notification is made by express order of the Emergency Chief.

- The Security Control Center (PPS) operator will then:
  - Notify the "Centre d'Atenció e Gestió de Trucades d'Urgència" 112 (Public Emergency Response Service), and immediately afterwards notify the Catalan Center for Civil Emergency Coordination (CECAT). He/she will then read the statement shown in ANNEX II.



- The Emergency Chief will then notify the Response Chief and the E&S Coordinator, and the latter will then alert the E&S Officers for the event or zone regarding the emerging situation.
- To evacuate the building, the general alarm siren will be activated using a button located in the Building Command Center.
- As long as there are no prerecorded announcements in the public address system, this
  system will be used manually to give the appropriate EVACUATION instructions in
  accordance with the nature of the emergency.
- If the Emergency Chief considers it necessary, he/she will provide appropriate instructions using the public address system manually.

## **IV. Shelter-In-Place Alerts**

**Level 1 Shelter-In-Place Alert**. This alert deals with sheltering-in-place inside the building due to the presence of fumes or gases in the exterior.

**Level 2 Shelter-In-Place Alert**. This alert refers to sheltering-in-place within enclosures or areas within the building due to the presence of strong winds or tornadoes.

- As long as there are no prerecorded announcements in the public address system, this
  system will be used manually to give the appropriate SHELTER-IN-PLACE instructions in
  accordance with the nature of the emergency.
- The decision of the level of sheltering-in-place to be adopted and, consequently, to give notice to building occupants is taken by the Emergency Chief in accordance with the information received from the Response Chief and/or from an outside source (when coordinating with other companies and surrounding buildings).

The Security Control Center (PPS) operator will then:

• Notify the "Centre d'Atenció e Gestió de Trucades d'Urgència" 112 (Public Emergency Response Service). He/she will then read the statement shown in **ANNEX II.** 

# V. End of Emergency

The End of Emergency notice is made by express order of the Emergency Chief, using the means he/she deems appropriate for returning to a normal situation in the most efficient way possible.

#### **Outside working hours**

The security guards, once an emergency has been detected, will notify in order:

- Those in charge of the building complex
- The "Centre d'Atenció e Gestió de Trucades d'Urgència" 112 (Public Emergency Response Service).



## 3.4.3. Responding to an Incident

## 3.4.3.1. Response Procedures in Case of Fire

## During working hours and/or during an event

## I. Minor Emergencies

- The members of the FR Team for the affected area, upon receiving notice, will move to the scene of the emergency, and in line with the training received:
  - Select the closest and most conveniently located fire extinguishers.
  - Form a work team with a companion (minimum two people).
  - Operate the extinguishers (remove the pin and check to see the unit has pressure).
  - Act to extinguish the fire using the extinguishers closest to the scene.
  - Remove objects near the fire, and disconnect appliances and electrical equipment.
- The Response Chief, upon receiving notice, will move to the scene of the emergency, and assume command of operations. Once there, he/she will:
  - Order the deployment/use of equipped fire hydrants, if applicable.
  - Keep the Emergency Chief informed
- When normalcy is restored, an assessment of the damages and causes of the emergency should be made, and the corresponding report drawn up.

#### **II. Partial Emergencies**

The Emergency Chief, at his/her discretion, will activate the Partial Emergency response protocol if necessary, based on the information received from the Response Chief.

From the moment the Partial Emergency response protocol is activated, the Emergency Chief must remain in the Security Control Center (PPS).

The members of the response teams, upon receiving the alert, should move to the scene of the emergency and, in line with the training received, act to suppress the fire with all available means, following instructions from the Response Chief.

When normalcy is restored, the Emergency Chief will issue an End of Emergency notice.

An assessment of the damages and causes of the emergency should be then made, and the corresponding report drawn up.

# **III. General Emergencies**

The Emergency Chief, at his/her discretion, will activate the General Emergency response protocol if necessary, based on the information received from the Response Chief.

All members of Emergency Teams will report to their designated response locations.



#### **Outside working hours**

Response is exclusively the remit of the Fire Department, who will be alerted by security personnel.

## 3.4.3.2. Response Procedures for Gas Leaks/Explosions

## **During working hours and/or during an event**

If a gas leak is detected, the protocol to follow is as below:

- Evacuate the area where the odor has been detected (it may be necessary to activate the partial or general evacuation plan for the building complex).
- Cease and desist from actuating electrical switches or plugs (neither connecting or disconnecting).
- Not smoke or light any flames near the affected area.
- Shut off the gas mains.
- Open the doors and windows in the affected area to improve ventilation and reduce damage in case of explosion.
- Notify the Security Control Center (PPS), and who in turn will act in line with the instructions received from the Response Chief or Emergency Chief.
- Notify the "Centre d'Atenció e Gestió de Trucades d'Urgència" 112 (Public Emergency Response Service).

It may be advisable to activate the Partial Emergency protocol in order to have the necessary human resources available. This decision will be made by the Emergency Chief.

If an explosion occurs, proceed as directed in case of fire.

## **Outside working hours**

Response is exclusively the remit of the Fire Department, who will be alerted by security personnel.

## 3.4.3.3. Response Procedures for Power Failures.

#### **During working hours and/or during an event**

- The Response Chief calls the Security Control Center (PPS) for information.
- The Response Chief and the FR Team attempt to resolve the problem, and restore power or activate the backup power supply. They must keep the Emergency Chief informed.
- The Security Control Center (PPS) notifies the Emergency Chief, who, upon receiving the information from the Response Chief, at his/her discretion, may:
  - Call in the power company.
  - Order that the "Centre d'Atenció e Gestió de Trucades d'Urgència" 112 (Public Emergency Response Service) be notified.
- The Emergency Chief declares the level of emergency that he deems prudent and fitting.



## **Outside working hours**

Security personnel will notify the Emergency Chief.

## 3.4.3.4. Response Procedures for Alterations to Public Order.

## During working hours and/or during an event

- The Security Control Center (PPS) should be notified in the same manner as in case of fire, except for actuating the fire alarm buttons.
- The Security Control Center (PPS) operator will inform the Emergency Chief of the situation.
- The Emergency Chief will assess the situation, taking the appropriate measures and relying on the Private Security personnel on the Premises.
- If he/she considers it appropriate, he/she may order the Security Control Center (PPS) to call the local police.
- If deemed necessary, the Emergency Chief may order the evacuation of the affected area (partial emergency) or a general evacuation of the building complex (general emergency).

## **Outside working hours**

The response falls exclusively under the jurisdiction of public law enforcement, who will be alerted by security personnel.

## 3.4.3.5. Response Procedures for Elevator Accidents

#### During working hours and/or during an event

- The person who detects the accident shall immediately notify the Security Control Center (PPS).
- The Security Control Center (PPS) notifies the Emergency Chief, who upon receiving the information from the Response Chief, declares the level of emergency that he/she deems appropriate.
- The Emergency Chief, at his/her discretion, may
  - Notify the "Centre d'Atenció e Gestió de Trucades d'Urgència" 112 (Public Emergency Response Service).
  - Order the company that maintains the elevator to be called in.
  - Upon receiving notice, the Response Chief will move to the scene of the accident and:
    - Lead rescue operations, until the arrival of the firefighters.
    - Order bystanders not to approach.
    - Keep the Emergency Chief informed.

## **Outside working hours**

Response is exclusively the remit of the Fire Department, who will be alerted by security personnel.



## 3.4.3.6. Response Procedures for Bomb Threats

## **During working hours and/or during an event**

Upon receiving it, the person receiving the call will attempt to gather as much information as possible, and upon completion of the call, will communicate with the Building Emergency Chief, and will provide that person with all the information available.

The Emergency Chief will recur to the Security Control Center (PPS) and call the police to confirm the threat.

The Emergency Chief will then also inform his/her superiors in the company.

The Emergency Chief shall then await the arrival of the Police.

The Emergency Chief, at his/her discretion, will order an Evacuation of the building complex, even if the Police have not yet arrived.

## DO NOT TOUCH OR HANDLE, FOR ANY REASON, ANY SUSPICIOUS PACKAGES

A form for collecting information from the person receiving the bomb threat call is attached in Annex II.3. This form should serve as a guide for gathering all available information about the call.

#### **Outside working hours**

Upon receiving it, the person receiving the call will attempt to gather as much information as possible, and once the call is over, should then contact the Police, providing them with all the information available.

A form for collecting information from the person receiving the bomb threat call is attached in Annex II.3. This form should serve as a guide for gathering all available information about the call.

## 3.4.3.7. Response Procedures in Case of Flooding

## **Procedures for Basement Flooding**

- Evacuate the basement as quickly as possible without using the elevators.
- Call Emergency Public Services.
- Shut down the elevators as a precaution against power failure.
- Assess the need to totally or partially evacuate the building.

This procedure shall be followed during both working hours and/or during the celebration of events, as well as during non-working hours.

## 3.4.3.8. Response Procedure for Strong Winds or Tornadoes

#### What to do when faced with a tornado

• The Emergency Chief will order activation of the **LEVEL 2 SHELTER-IN-PLACE PROTOCOL**. (See section 3.4.5.)



- Do not open any doors or windows.
- Keep away from windows, doors, and exterior walls, as debris and other objects carried by the wind can break windows and cause serious personal injury.
- Remain confined in the innermost enclosures of the building, far away from the windows and exterior enclosures.
- Place as many walls as possible between the outside and those taking shelter.
- Immediately evacuate the Lobby of the CCIB Building, confining all those taking shelter in interior locations.
- Avoid basement areas to avoid the risk of flooding. Do not forget that heavy rains may
  often accompany tornadoes.

## After the tornado has passed

- Check for gas leaks and possible damage to electrical installations.
- Check the condition of the building, especially glass enclosures and the roof.
- Draw up an assessment of the overall damage.
- The Emergency Chief will assess the need to activate the Emergency Plans for a PARTIAL or GENERAL EMERGENCY.

This procedure shall be followed during both working hours and/or during the celebration of events, as well as during non-working hours.

#### 3.4.3.9. Response Procedure for Outdoor Fires or Toxic Gas Clouds

This procedure applies to any outdoor fire or toxic cloud whose consequences may affect the normal affairs of the building, for example, a vehicle fire, fire in a nearby building, in the Forum treatment plant, and so on.

## **Giving Notice of Accidents and Gathering Information**

As soon as there is an odor or a visual sign of smoke or gas in the vicinity of the immediate area around the building, immediately notify the "Centre d'Atenció e Gestió de Trucades d'Urgència" 112, providing them with any information they require, and all other details that may be of interest.

At his/her discretion, the Emergency Chief may order activation of the **LEVEL 1 SHELTER-IN-PLACE PROTOCOL**. (See section 3.4.5 of this document.)

In line with the nature and gravity of the situation, the Emergency Chief will assess the need to activate the protocols for a PARTIAL EMERGENCY.

This procedure shall be followed during both working hours and/or during the celebration of events, as well as during non-working hours.



#### 3.4.3.10. Response Procedure for Major Snowfalls and Icy Conditions

## **During working hours**

The Emergency Chief shall move to the Security Control Center (PPS), where he will contact the "Centre d'Atenció e Gestió de Trucades d'Urgència" 112 and follow their instructions, and then inform the CECAT.

At his/her discretion, the Emergency Chief may order activation of the **LEVEL 1 SHELTER-IN-PLACE PROTOCOL**. (See section 3.4.5. of this document.)

The rest of the Self-Protection team leaders and members shall remain on alert.

## **Outside working hours**

No responses are necessary.

## 3.4.3.11. Response Procedure for Earthquakes

## **During working hours**

The Emergency Chief shall move to the Security Control Center (PPS), where he will contact the "Centre d'Atenció e Gestió de Trucades d'Urgència" 112 and follow their instructions. He will then inform the CECAT.

At his/her discretion, the Emergency Chief may order activation of the **LEVEL 2 SHELTER-IN-PLACE PROTOCOL**. (See section 3.4.5. of this document.)

The rest of the Self-Protection team leaders and members shall remain on alert.

## **Outside working hours**

Response is exclusively the remit of the Fire Department, who will be alerted by security personnel.

## 3.4.3.12. Response Procedure for Crowd Panics and Stampedes

#### Introduction

A crowd panic or stampede is a situation that can pose an extreme risk of suffering personal injury or death for the people who are involved or affected by it.

The definition of a "human stampede" states that it begins when there is some movement, not necessarily at high speed, of a highly dense group of people (high number per square meter) in a given direction, involving anywhere from a few dozen to thousands of individuals. In principle, the situation does not have to present any greater hazard than that of minor pushing or squeezing. It is also true that in certain contexts, there is latent risk, but fortunately, in the vast majority of cases, the situation develops no further, and dissipates as soon as the group disbands.

An immediate effect that pertains when people are packed close together is that most of the individuals that form the group lose a good part of their field of vision, meaning they cannot clearly perceive their immediate surroundings. This is especially true for people with a shorter stature.



In fact, one cannot speak of a human stampede until the hazard inherent to a dense concentration of people results in a panic. The consequences of the onset of a panic usually involve the formation of bottlenecks along escape routes, leading to crushing, suffocation, contusions, and so on. The danger posed by a bottleneck is that it leaves people trapped at the front of the line who cannot move either forward or backward.

The factors that may trigger a panic may include:

- The presence of obstacles along the path of the stampede. These can cause people to stumble and fall. Such stumbling can then lead to situations of greater panic.
- Bottlenecks or narrowing of the passage. A narrowing passageway necessarily produces
  a reduction in speed at the head of the stampede. If the tail end of the stampede does
  not slow down, there will be stumbling, pushing, and crushing, creating more panic.
- Objective causes for crowd panic include the presence of fumes or smoke, herd of bulls goring from behind and other incidents affecting the buildings that are the subject of this manual.
- Subjective causes for crowd panic include excess heat, loud screaming, a lack of sufficient illumination, and so on.

## Preventing panics and stampedes:

- As soon as it is detected that any areas are reaching a high density of people, this concentration must be reduced.
- Remove or move objects that may cause tripping, especially along emergency escape routes.
- Detect and eliminate, if possible, situations that may lead to a panic and stampede.

What to do once a bottleneck has been produced:

- Once a stampede is in progress, especially when a dangerous bottleneck has formed, action must be taken quickly to minimize the harm that may come to the people affected.
- If the characteristics of the situation so allow, remove pressure from the bottleneck directly by sending emergency team responders to remove people from the tail end of the crowd that is pressing up against the head of the line. Given the magnitude and urgency of such a situation, the emergency teams will require the help of other individuals who are in a position to assist them in this task.
- If the characteristics of the situation do not so allow, try to get the people trapped at
  the front out, meaning that the majority of the emergency responders and first aid
  teams will have to concentrate on that location in order to minimize the harm people
  may suffer.

## 3.4.4. Evacuation Procedure

A sounding of a General Emergency may entail the evacuation to a safe location of all occupants of the building complex who have not been assigned a specific task, or have not been specially requested to be there by the Emergency Chief.



## 3.4.4.1. Objectives

The objectives of the EVACUATION PLAN are basically:

- 1. To gather in a safe place all the personnel and members of the public who are not involved in responding to the emergency, especially people not associated with the building complex. These evacuation areas are called MEETING POINTS.
- **2.** To endeavor to provide first aid to people affected or injured in the event of an incident in the most effective manner, given the situation.

#### 3.4.4.2. MEETING POINTS

## **Introduction**

For the scenario under consideration, a prior introduction to the importance of the **Meeting Points** (MP) for these two buildings bears mentioning.

First of all, in the worst-case scenario, from the standpoint of an emergency, we can be talking about a combined level of occupation for both buildings that can reach 25,000 people.

The erratic nature of human behavior in emergency situations, especially by those occupants who are not regular users of the buildings being evacuated, makes it highly likely that the distribution of people among the meeting points will be very erratic. This factor is difficult to control, so it is necessary for any of the planned Meeting Points to be able to safely and temporary shelter a large number of people, given that it is the safe arrival at a Meeting Area that is most conducive to returning to a state of normalcy.

For this reason, prior to proceeding with discussion, it is necessary to pose two totally opposite extreme cases:

- **Hypothetical Extreme No. 1**. All evacuated occupants go home by their own means (walking calmly), so that the meeting points end up completely empty.
- **Hypothetical Extreme No. 2**. None of the evacuated occupants goes home, and all are distributed more or less randomly among the different meeting points (in this case, 5).

The working hypothesis on which the present study relies is necessarily some result that lies between the two extreme cases above; that is, that there will be an indeterminate number of people who will leave on their own and completely abandon the area, and some other indeterminate number of people who, following the instructions of the evacuation personnel for the affected building, will arrive at one of the five Meeting Points set up to attend to their various needs; from those who have lost or misplaced a coat, to the injured of greater or lesser severity, as well as others who cannot find their accompanying party members, and so on.

## **Definition of a Meeting Point**

A meeting point is an outdoor area where emergency responders can send the people evacuated from an enclosure, building or establishment, to achieve specific objectives.



## I. Objectives to be achieved

## **Primary**

- To regroup people effectively away from the imminent danger that arose in the building(s).
- To make a post-evacuation control check to ensure that everyone has exited safely.
- To facilitate the safe delivery of first aid to any injured persons.
- To provide post-evacuation instructions more effectively to those evacuated.

# Secondary

- To provide a place facilitating the reunification of families, groups of friends, travelling companions, etc.
- To gather testimony about the emergency "on the spot".
- To gather and deliver lost and found objects.
- To attend to various people in need.

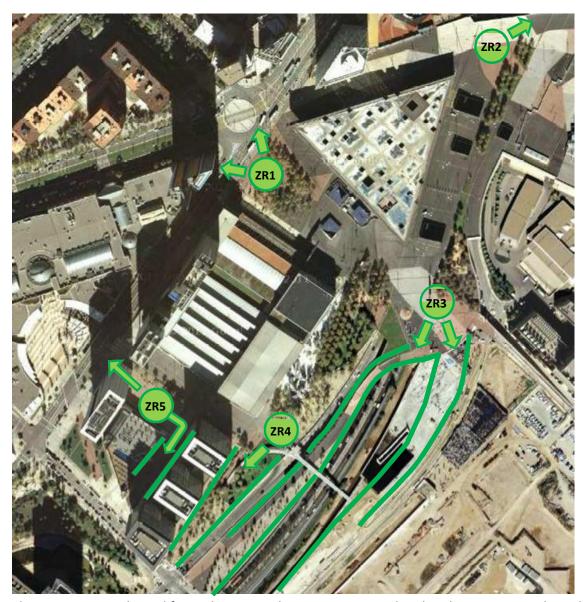
## II. Requirements

- Sufficient open space.
- Open area clear of obstacles.
- Easy access for evacuees, including people with reduced mobility.
- Safe space with regard to the hazards posed by the location that was evacuated.
- Good visibility, day or night.
- That from each MP, evacuees can be evacuated via a sufficiently safe route.
- Easy ambulance access, if possible via at least two alternative routes.



# **Locations of the Outdoor Meeting Points for the CCIB and FORUM Complex**

In the following aerial image, the 5 Meeting Points that have been set up for the two buildings are shown.



The exit route is indicated for each point so that evacuees may abandon the entire area altogether if necessary.



## **Meeting Point Signage**

The signage for the Meeting Points will be done using three-dimensional (three or four-sided) signs of sufficient size so as to be clearly visible and distinguishable from a distance of at least 50 meters (see UNE standard evacuation signage dimensions).

Signs will be placed at the top of a suitable pole or stand, with a height above the ground of 4 or 5 meters, so that each can be seen from any of the exits of the affected buildings.

The following image shows an example of what the signs might look like.



When designing the signage, in addition to respecting the basic green and white colors of evacuation signage specified in the corresponding UNE standard, it is important to consider the need to add other elements with colors that contrast with the background against which the signage will be observed (skyline) to avoid confusion as much as possible, both during the night and in daytime.

## **CCIB and FORUM Meeting Point Facility Requirements**

- Sufficient illumination of the MP during the night time. The minimum illumination is considered to consist of at least 4 independent lights providing the equivalent of 500 watts each. The height of the lights with respect to the ground must be on the order of 4 to 5 meters.
- Bidirectional Communications Equipment, which allows communicating with the Security Control Center (PPS).
- A platform or dais suitable for a person to stand on it safely and be able to see and be seen above the heads of the crowd. The minimum mandatory height of this platform with respect to the ground is one meter.
- Portable loudspeaker equipment to convey instructions to the crowd.

It is advisable for the MP signage to be installed permanently, at least for MP1 and MP5.



It is advisable, for any major events in which attendance:

- In a single building exceeds 3,000 occupants.
- In the two buildings jointly exceeds 5,000 occupants.
- When, in addition to holding events in one of the buildings, simultaneously there are activities with large influx of public expected in the Parc Forum or its surroundings,

#### That:

- 1. If there are simultaneous activities in the 2 buildings, the 5 Meeting Points are set up.
- 2. In case any activities are only in the FORUM building, MP1 and MP2 are set up.
- 3. In case any activities are only in the CCIB building, MP1, MP3, MP4 and MP5 are set up.

At each Meeting Point, all the equipment mentioned in the previous section must be on hand.

Non-permanent meeting points will be set up in their designated positions prior to the start of events.

## **Meeting Point Operations**

When those evacuated are arriving at a Meeting Point, there must already be someone from the organization who will instruct the crowd in what to do as they reach the location.

The behaviors expected of evacuees at a Meeting Point are as follows:

- To **wait** for new instructions (for example: to reenter the building once an emergency is resolved).
- To move to another Meeting Point or some other more secure location if the nature and progress of the emergency so requires.
- To leave/clear the area definitively, and return to their place of domicile, following the recommendations given on the use of private and/or public transport. Given the expectation that private vehicles may act to clog traffic on nearby streets, hindering the progress and access of emergency vehicles, it is advisable to prohibit the removal of private vehicles parked in the area until the emergency has been resolved.

#### 3.4.4.3. General Norms for Evacuations

An Evacuation must be carried out as quickly as possible, but also with order, proper caution, and serenity. That is why it is necessary to:

- Maintain calm and avoid panic; and vacate the building complex without running or screaming.
- 2. Never enter a danger zone affected by an incident.
- **3.** Never return inside or stop to pick up personal items.
- **4.** Assist those who need special attention to get around.



- **5.** Accompany people from outside or new to the company to the meeting points (temporary staff and visitors).
- **6.** Always use the fastest and safest escape route.
- 7. Make yourself seen, in case you are not able to vacate the area where you are located.
- 8. Follow the instructions of the personnel responsible for Evacuation.

#### 3.4.4.4. Evacuation Procedures

Evacuation takes place in three consecutive phases:

#### PHASE 1. Leave and close down the facilities

- **1.** Shut down all machinery, close the mains connections for liquids and gases, and disconnect electrical appliances.
- **2.** Check for the presence or absence of all those who have to evacuate that location.
- **3.** Close the windows and, on leaving, the last person should close the door(s).

#### PHASE 2. Head to a MEETING POINT

Go to the predetermined meeting points following designated evacuation routes and instructions from Emergency Response personnel, especially from the Alarm, Evacuation and Shelter-In-Place Teams (E&S Teams).

#### **PHASE 3. Remain at the MEETING POINT**

- 1. You should stay at the meeting point until you are allowed to return to the building.
- **2.** You should heed the instructions given by those responsible, and remain calm and confident.
- **3.** Do not leave the group you arrived with without the express permission of the E&S Officer for the Meeting Area in order to facilitate the head count.

## 3.4.4.5. Role of the Alarm, Evacuation and Shelter-In-Place Team (E&S Team)

The tasks related to effecting partial and general emergency Evacuations are the remit of the Alarm, Evacuation and Shelter-In-Place Team (E&S Teams).

Each E&S Team is made up of a minimum of two people who, depending on the emergency, will be assigned to enclosures or zones.

One of the members will be assigned the duties with the code name "DOOR," while the other or others will be given the duties relating to an "EMPTYING" or "SWEEP" of the building complex and enclosures.

The duties entrusted to each are the following:



#### "DOOR" Team Members

- 1. Open all doors of the assigned floor or area(s), provide for the orderly exit of occupants, and prevent evacuees from coming back in through these doors.
- **2.** Provide for an orderly exit of the staff, recommending calm and that no one should panic or run. Try to avoid the formation of panics or stampedes, and take special precautions around bottlenecks, such as doors or changes in corridor direction.
- **3.** Wait at the door until fellow "SWEEP" team member(s) arrive(s).
- **4.** Do not proceed to exit until the E&S Team for the next floor up or previous area has come down the stairs.
- **5.** Recommend everyone to keep their hands free.

## "SWEEP" Team Members

- 1. Meet up with the person on the team in charge of "DOOR" duties.
- 2. Go to the furthest point within the assigned Evacuation sector.
- **3.** Provide for the orderly exit of all occupants. Try to avoid the formation of panics or stampedes, and take special precautions around bottlenecks, such as doors or changes in corridor direction.
- **4.** Prevent anyone from going back inside or upstairs.
- 5. Recommend everyone to keep their hands free.
- **6.** Shut down electrical heating and/or ventilation equipment.
- 7. Close the windows and doors of the locals, rooms, or enclosures.
- 8. Meet up again with the person on the team in charge of "DOOR" duties.
- **9.** Do not proceed to exit until the team members for the next floor up or previous area have come down the stairs.
- **10.** Go with your teammates to the meeting point, wherever the evacuees from your floor or area are located.

#### 3.4.4.6. Tactics and special evacuation measures for large events

# **Evacuation Routes**

In events where a mass influx of public is expected, evacuation signage must not be limited to the bare minimum required by prevailing regulations in the matter of the evacuation of people.

For this reason, a novel approach to **proactive evacuation signage** has been introduced. This new way of complementing route signage and evacuation indicators complements traditional passive signage.

The major elements of this broader form of active signage are the people who make up the E&S Team for the building complex, who will be placed in strategic locations along the various escape routes, if possible in elevated places with respect to the ground so that they are more easily visible to the crowd during the evacuation. They are equipped with a reflective vest and two directional indicator lights, in addition to being in touch by walkie-talkie with the person in charge of evacuation.



This allows an improvement in efficiency for getting messages across, since verbal communication acts to reinforce NON-VERBAL communication. During an emergency, it also improves the chance that a responder in an elevated position can act to prevent unwanted crowd behavior.

## **Preventive Monitoring**

In large concentrations of people, or in situations of high density occupancy of an enclosure or an area, **preventive monitoring** of the crowd is intended to detect possible conditions that could trigger emergency panics in people, in order to avoid such panics before they occur and reduce the potential hazards thereof.

#### Effects on crowds in an emergency situation

This improved visibility of emergency team personnel will have the following effects on the crowd:

- It will serve to calm and reassure the group of people being evacuated.
- It will improve the ability to transmit instructions to the occupants during an evacuation, as it combines verbal with non-verbal communication (gestures).
- It will act to increase the overall efficiency of the evacuation.
- It will reduce the risk of people being crushed after stumbling by reducing the risk of injury to the people being evacuated.

## **Elevated platforms for preventive crowd control during large events**

#### I. Strategic locations to place the platforms

- Where any clustering of people can be expected during an evacuation (changes in direction and/or split levels).
- At building exits, to prevent the crowd from standing still and blocking the way out.
- Wherever placement does not disturb the free movement of people.

## **II. Platform Features**

The platforms must be sufficiently stable to allow a normal person to safely climb on top and stay there, and to stand upright in order to speak and gesture to the crowd.

It should be possible to stand on the platform without having to hold on to something. The platforms have to be fixed to the ground or other structural elements to ensure that the movements of the crowd will not make it shake or fall.

Both access to and exit from the platform must be possible to do safely and quickly by the person designated for that purpose.

#### III. Placement of platforms

In each building, and in accordance with to the events scheduled, the best sites for these platforms should be studied, with the following being recommended a priori:

Close to some of the exits around large spaces



- At corridor corners with access to large spaces
- In other strategic locations

#### 3.4.5. Shelter-In-Place Procedure

Shelter-In-Place consists of responding to the emergency by having occupants take refuge in the interior of an enclosure or building, since given the type of external threat, it is safer for the them to stay inside the building than to evacuate.

In case of an emergency, the duties related to the safe sheltering-in-place of building occupants are assigned to the Alarm, Evacuation and Shelter-In-Place Team (E&S Team).

**LEVEL 1 SHELTER-IN-PLACE PROTOCOL**: In case of an external fire or the detection of outdoor toxic fumes and/or gases:

- The Alarm, Evacuation and Shelter-In-Place Team shall be responsible for ensuring that ALL openings communicating with the exterior (windows and doors) have been closed, and that they are kept closed during the time of sheltering-in-place, making periodic rounds to that effect.
- Any means of natural or artificial ventilation that communicate with the air outside the building will also be closed.

#### **LEVEL 2 SHELTER-IN-PLACE PROTOCOL**: In case of strong winds or tornadoes:

- The Alarm, Evacuation and Shelter-In-Place Team will be in charge of evacuating the offices and other dependencies, leading the occupants to the enclosures and safe zones designated for that purpose.
- In any case, occupants shall remain in place until it has been confirmed that the danger has passed.
- Such confirmation shall be given by the Emergency Chief using the means he/she deems most suitable.

# 3.4.6. Provision of First Aid.

The professionals who are specifically trained to provide first aid for injured persons in an emergency and/or occupational accident deploy as fit.

# 3.4.7. Reception of Outside First Aid Responders

When the assistance of outside emergency healthcare teams has been requested, the police, firefighters, and rescue squad shall be received by the Emergency Chief, or the person he/she designates at that time, and upon arrival third parties will be provided with the following information:

- The location of the incident in the building.
- The existence or not of wounded and/or trapped individuals.
- All information that is known regarding the emergency.
- The hazards involved in any of the areas near the scene of the incident.
- Any incidences produced during the evacuation or sheltering-in-place, if applicable.



The place set aside for delivery of outside first aid is the Security Control Center (PPS), located in the CCIB.

## 3.5. STANDARD OPERATING PROCEDURE (SOP) FORMS

The Annexes include the SOP Forms that specify the emergency response instructions for the members of the Emergency Teams. These will be delivered to each team member during the training sessions.

Specific instructions have been defined for the roles of the:

- Emergency Chief
- Response Chief
- Evacuation and Shelter-In-Place Coordinator
- Evacuation and Shelter-In-Place Officer
- First Aid Coordinator
- Members of the First Response Team
- Members of the Evacuation and Shelter-In-Place Team
- The Alarms and Security Center Officer (In charge of the central command post)
- First Witness on the Scene
- First Aid Team

These instructions, provided as SOP Forms, should be printed in a reduced size and plasticized if possible, so that they are always in the possession of each of the members of the Emergency Teams as a handy reminder of their duties.

## 3.6. INTEGRATION INTO TOP-LEVEL ACTION PLANS.

#### Territorial and domain-specific plans

In Catalonia, there exists a set of territorial and domain-specific plans. Territorial plans generally provide for emergencies that may occur in the region. Special, or domain-specific, plans refer to specific types of hazards, the nature of which each requires the technical and scientific methods uniquely suitable to evaluate and treat them. The table below lists those top-level plans that have the chance of affecting the building complex.

#### **Territorial Plans**

- Civil Protection Plan for Catalonia (PROCICAT)
- PROCICAT emergency response plan for pandemics

#### **Special, Domain-Specific Plans**

- External emergency plan for the Catalan chemical industry (PLASEQCAT):
- Plan for emergency civil protection during forest fires in Catalonia (INFOCAT)
- Civil protection plan for flood risk in Catalonia (INUNCAT)
- Special emergency plan for heavy snowfall in Catalonia (NEUCAT)



Special seismic emergency plan for Catalonia (SISMICAT)

As set out in article 7 of Decree 82/2010, of June 29, approving the "catalog of activities and centers mandated to undertake self-Protection response measures," laying out the content of these measures in the event an accident or emergency takes place in the installations included in the scope of this Decree, the person who is in charge of the activity is the one responsible for carrying out the following tasks relating to coordination with other, higher-level plans:

#### I. Communications during the emergency:

The "Centre d'Atenció e Gestió de Trucades d'Urgència" must be notified by dialing 112, and immediately afterwards the Catalan Center for Civil Emergency Coordination (CECAT), also by phone. This act of communication will be supplemented, as quickly as possible, by an electronic mail message, as well as by any other suitable means that may be available in future.

Based on the reception of the above information, the public administration must assess the need for activating the corresponding civil protection plan. In case this happens, and the advisory council is convened, a representative of the institution or corresponding activity will be incorporated into the emergency committee.

In addition to this initial notification, regardless of whether or not the corresponding civil protection plan is put into action, those involved in emergency response must maintain an open exchange of breaking information with the CECAT throughout the emergency.

## II. Follow-up emergency and response reports relating to the self-protection plan

Once the outcome and possible causes of an emergency are known, and an estimate of the people affected by the emergency can be made, the persons in charge of the activity must file a report, via the online registry for Self-Protection response plans, to the competent General Directorate in the matter of civil protection within a maximum period of seven working days, unless the industry regulations governing that activity stipulate a tighter deadline.

This report must provide information on the following items at minimum:

- Description of the incident and its causes
- Chronology of the actions taken and of the actions foreseen in the Self-Protection Plan
- Description of the protective measures taken (sheltering-in-place or evacuation of occupants)
- Aspects of the Self-Protection Plan to be improved or modified, as a result of the lessons learned from the incident

Taking into account these duties, coordination between the Self-Protection Plan for the buildings and any of the plans listed above can be guaranteed by the provision in the Self-Protection Plan for the items described in the next two points.

#### 3.6.1. Coordination at the managerial level

Coordination between upper management of the Self-Protection Plan and the authorities representing the Civil Protection Plan into which the Self-Protection Plan is integrated is fundamental for proper management of emergencies. For this reason, the relationship between



the person in charge of the Self-Protection Plan and the competent civil protection authorities must be defined.

In general, once assistance has been requested from Public Assistance Services, when the latter arrive at the building and are brought up to date by the Emergency Chief, or the person designated by him/her, they take charge of responding to the emergency.

The Emergency Chief, or the person designated by him/her, will call the CECAT to set up coordination between the management team for the Self-Protection Plan and the authorities representing the regional public agency or institution in question that could potentially be called upon, if such were the case. Also, he/she may call the municipality's Alarm Center to set up coordination between the management team for the Self-Protection Plan and the responsible authorities from the Municipal Civil Protection Plan.

#### 3.6.2. Coordination at the operational level

Coordination is based on the following items:

#### **Emergency notification protocols**

These are the SOPs that explain how to communicate an emergency to an outside agency. Section 3.4.2. describes what these notification protocols for communicating with outside emergency aid services should be.

# Mechanisms for collaboration of the self-protection organization with the plans and activities of the public Civil Protection network.

Collaboration may be two-way, Civil Protection with the management team supervising the building plan, and vice versa. Such collaboration can take the form of:

- Civil Protection with the Building Complex: providing advice on the implementation of response measures, and collaboration in classroom and practical training for the personnel in question.
- Building Complex management with Civil Protection: facilitating the inspections that allow public responders to be familiarized with the complex, providing information about any equipment installed therein, and participating in training simulacra to develop smooth and effective coordination of emergency responses.