

EXPRO National Manual of Assets and Facilities Management Volume 14, Chapter 2

Emergency Management Procedure

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Emergency Management Procedure

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Emergency Management Procedure

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1.0 PURPOSE

The purpose of this document is to equip entities with a tailored and optimized Emergency Operations Manual (EOM). Given the breadth and depth of the Emergency Management (EM) subject matter and its importance, the guidelines incorporated into this document address everyone working within the Entity irrespective of their position.

The EM Procedure is designed to be scalable dependent on the size of Entity and the sector including:

- Healthcare
- Schools and universities
- Offices
- Municipal
- Housing
- Roadways
- Parks and Reached

Contained within the attachments are Templates and Job Card examples that support implementation of the Procedure.

2.0 SCOPE

This document offers guidance based on local and international standards, and industry best-practice for hazard mitigation and Emergency Preparedness (EP). It is designed such that each Entity can generate a comprehensive, fit-for-purpose EOM. Hazard mitigation and EP form the foundation of the EOM and are suitably defined within this section.

2.1 Hazard Mitigation

A hazard is anything which can cause harm to people, disruption to normal operations, or damage to assets, whereas, risk is the likelihood that the hazard will realistically occur.

All Entity operations carry inherent risk. Quantifying this risk leads to a risk profile, which if left without mitigation, could lead to either:

- Hazards occurring and consequences leading to Emergency Incidents (EIs)
- Improper response to EIs which increases the impact of the hazard

Hazard mitigation is used to limit risk. Examples of hazard mitigation include but are not limited to:

- Emergency Warning Signals to indicate specific EIs
- Water capture apparatus in drought areas
- Back-up communication and power systems
- Fire and life safety systems
- Chemical showers
- Eye Wash Stations
- Flood defense systems
- Earthquake resistant building design

Hazards are captured in a Risk Register. A sample of a Risk Register is shown within Table 1 (below).



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ITEM	CAUSE (S) Hazard	CONSEQUENCE (S)	RISK SOURCE (S)	RISK STATEMENT	CURRENT			TREATMENT PLAN TITLE	TREATMENT PLAN OWNER	RISK MANAGEMENT INTERVENTION (ACTIVITY)	ACTIVITY OWNER	ACTIVITY TYPE			
					RISK TYPE	RISK RANKING							RISK LEVEL		
1	Insufficient suitably trained and competent fire/evacuation wardens to manage the safe evacuation of the facility employees and visitors	During naturally occurring hazard events such as earth quake or floods the facility users will be required to evacuate. The evacuation is not controlled and users failed to leave the facility resulting their possible injury.	Entity Emergency Planning procedure/ Facility users evacuation plan	Insufficient trained staff on site and no evacuation plan in place.	Threat	CONSEQUENCES	Probability/ Likelihood		Select	Evacuation warden training programmed	Operations Manager	1	Training to be provided to meet the requirements found with the Emergency Planning Procedure	Training Manager	Action
							Cost		Nil			2	Training to be provided to meet the requirements found with the customer evacuation plan	Training Manager	Action
							Time		Nil			3	Competence management aimed at maintaining the skill levels of the evacuation wardens	Competence assessors	Control
							Safety		NIL			4	Staff plans to ensure minimum level of evacuation wardens on site	Operations manager	Control
							Quality		NIL			5	Evacuation drill program to test evacuation process	All users	Control
							Environmental		NIL			6			
							Community		NIL			7			
							Reputation		NIL			8			
							Security		NIL			9			

Table 1: Sample Risk Register



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Risks are quantified using a Risk Matrix as shown in Figure 1 (below).

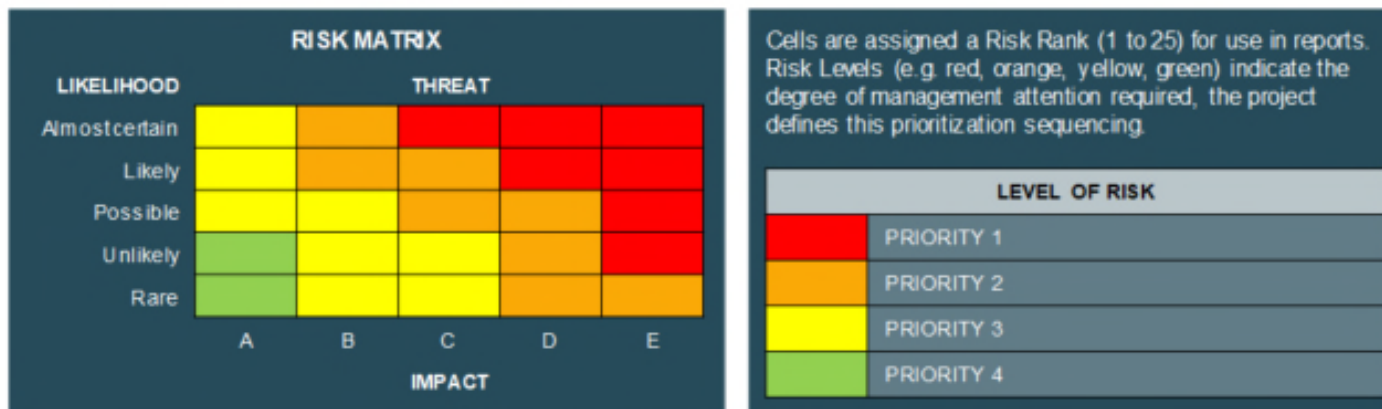


Figure 1: Risk Register



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The Risk Matrix (Figure |1) is driven by a Risk Rating Scheme comprising: Risk Likelihood Categories (Table 2 – below), and Risk Impact Categories (Table 3 – below):

Likelihood	A Rare	B Unlikely	C Possible	D Likely	E Almost Certain
	Risk has an occurrence of less than 1% in the relevant industry.	Risk is unlikely to occur on this project with current processes and procedures in place.	Risk occurs often within the industry or Company.	Risk has recently occurred on a similar project within the industry or Company.	Risk is highly likely to occur on this project; potentially multiple times.
(Or) Probability	<= 10%	>10% to 30%	>30% to 70%	>70% to 90%	>90%

Table 2: Risk Likelihood Categories

Impact Category	A Very Low	B Low	C Medium	D High	E Very High
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Table 3: Risk Impact Categories



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2.2 Emergency Preparedness (EP)

EP is an application of Emergency Management (EM). It is the body of policies, administrative decisions, and operational activities undertaken at various stages of an Emergency Incident (EI).

While hazard mitigation relates to specific measures which are taken to limit risk, EP builds hazard mitigations into a protective process. It enables entities to respond rapidly to an emergency, deal with it safely and effectively within its limits, and facilitate a smooth return to normal operations. Figure 2 (below) describes how EP shall be applied.



Figure 2: Application of Emergency Preparedness

The EOM is used to tackle all EIs which an Entity may encounter and it encapsulates all EP “tools” such as:

- Emergency Management Procedure
- Emergency exercises and drills
- Emergency Plans

2.3 Emergency Operations Manual (EOM)

All entities require an EOM which describes how a facility shall respond to and recover from an EI. Reporting, recording, coordinating, and evaluating activities associated with EM must be specified in the EOM.

An EOM comprises of the following elements:

2.3.1 Aim

To facilitate the optimum response to all foreseeable EI and capture lessons learned for refinement of the EOM.



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2.3.2 Objectives

While the aim of an EOM is common across all sectors, objectives of an EOM are entity-specific and shall be defined within EM Plans.

2.3.3 Key Components

Key components of an EOM include:

- Emergency Support Services (ESS) e.g., Police, Red Crescent, and Civil Defense.
- Well-defined communications
 - Department co-ordination
 - Technology
 - Emergency Designation Form
- Resources and assets
 - Resource Accounting Form
 - Asset Tracker
 - Procurement Summary Report Form
- Safety and security
- Infrastructure quality and security of supply
- Efficient use of resources
- Emergency Management Committee (EMC)
 - Roles and responsibilities (Job Action Cards)
 - Emergency Operations Center (EOC) and Communications Office set-up
 - Chain of command
 - Standing orders and protocols
- Emergency Preparedness Software (EPS)
- Alert codes (helping to define alert codes and respond appropriately)
- Operating Area Map {featuring Emergency Operating Areas (EOA) overlaid on top of Normal Operating Areas (NOA)}
- Security arrangements
- Scenario planning (ensuring adaptability to increased demand)
- Communications Plan

2.3.4 Principals

Principals of an EOM are:

- **Predictable:** Result in a predictable response and outcomes to all possible EI under all possible scenarios within each EI
- **Simple:** Simple and operationally functional
- **Flexible:** Strike a perfect balance between flexibility and rigidity. It should offer a framework by which to succeed under all conceivable types of EI under all possible scenarios within each EI
- **Concise:** Specify various roles, responsibilities, and communication protocols of administrative and technical groups in a concise manner such that it can be applied in whole or in part dependent on the EI
- **Comprehensive:** Feature all the information one could ever perceive to be required during an EI, whilst also being concise
- **Adaptable:** Although the EOM should contain Procedures which are to be followed without delay, it should also be readily and quickly adaptable to unforeseen circumstances
- **Anticipatory:** Consider worst-case scenarios
- **Integrated:** Represent an integrated approach to EM considering all inter (e.g. departments) and intra-entity (e.g. public, ESS, residents) stakeholders. A successful EOM shall enable a coordinated approach to the EI, and should be established in collaboration with local, district, and national stakeholders



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3.0 DEFINITIONS

Term	Definition
CEO	Chief Executive Officer
CFCs	Chlorofluorocarbons
COO	Chief Operating Officer
COSHH	Control of Substances Hazardous to Health
CUG	Closed User Group
CUL	Communications Unit Leader
DLAN	Disaster LAN
EAMS	Enterprise Asset Management Systems
EI	Emergency Incident
EM	Emergency Management
EMC	Emergency Management Committee
EMP	Emergency Management Plan
EOA	Emergency Operating Area
EOC	Emergency Operations Center
EOM	Emergency Operations Manual
EP	Emergency Preparedness
EPS	Emergency Preparedness Software
ESS	Emergency Support Services
ETAP	Electrical Transient Analyzer Program
EWS	Emergency Warning Signal
FEMA	Federal Emergency Management Agency
FM	Facilities Management
FSC	Finance Section Chief
FUL	Facility Unit Leader
GPS	Global Positioning System
HAZID	Hazard Identification Panel
HSS	Hazard Surveillance Survey
HV	High Voltage
HVA	Hazard Vulnerability Analysis
HVAC	Heating, Ventilation, and Air Conditioning
IC	Incident Commander
ICS	Incident Command Structure
ISDN	Integrated Services Digital Network
IT	Information Technology
KPI	Key Performance Indicator
LAN	Local Area Network
LED	Light-emitting diode
LSC	Logistics Section Chief
Mbps	Megabits per second
MCVs	Mobile Command Vehicles
MS	Microsoft
MSDS	Material Safety Data Sheets
NFPA	National Fire Protection Association
NOA	Normal Operating Area
NWC	National Water Company
O&M	Operations and Maintenance
OAM	Operating Area Map
PA	Public Announcement



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Term	Definition
PAT	Portable Appliance Tested
PC	Personal Computer
PMRs	Portable Mobile Radios
PoWRA	Point of Work Risk Assessments
PPE	Personal Protective Equipment
PRO	Public Relations Officer
PSC	Planning Section Chief
PUL	Procurement Unit Leader
RACI	Responsible, Accountable, Consulted, Informed
RPL	Resource Pool Leader
SEC	Saudi Electricity Company
SLT	Senior Leadership Team
SSO	Sanitation Systems Officer
STC	Saudi Telecom Company
UPS	Uninterruptable Power Supply
WAN	Wide Area Network

Table 4: Definitions

4.0 REFERENCES

- Federal Emergency Management Agency (FEMA) Comprehensive Preparedness Guide (CPG) 201 – Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR)
- Federal Emergency Management Agency (FEMA) Comprehensive Preparedness Guide (CPG) 101 – Developing and Maintaining Emergency Operations Plans
- Federal Emergency Management Agency (FEMA) – Local Mitigation Planning Handbook 2013
- International Organization for Standardization (ISO 22326) – Emergency management Guidelines for Monitoring Facilities with Identified Hazards
- International Organization for Standardization (ISO 22320) – Emergency Preparedness
- Kingdom of Saudi Arabia Ministry of Interior General Directorate of Civil Defense – Warning Signals - https://www.998.gov.sa/English/CivilProtection/Pages/whistle_alarm.aspx

5.0 RESPONSIBILITIES

Assignment of roles and responsibilities is a key part of the Emergency Phase and must occur immediately following activation of the EOM. This section contains a list of roles and responsibilities which may be applicable to the Entity during the EI, however, it shall be responsible for defining its own roles and responsibilities during the Pre-Emergency Phase as part of establishing the EOM.

Role	Description
Communications Unit Leader (CUL)	Responsible for organizing and coordinating internal and external communications during an EI and acting as custodian of all logged/documented communications
Damage Assessment and Control (DAC) Officer	Provide sufficient information regarding the operational status of the facility during an EI for the purpose of decision/policy making, including those regarding full or partial evacuation
Emergency Management Committee (EMC)	Group of responsible and accountable people tasked with preparing the organization for an EI and successfully leading the organization through it, then capturing lessons learned as part of continuous improvement
Emergency Operating Area (EOA) Supervisor	Person in charge of the EOA as assigned by the Resource Pool Leader (RPL). Responsible for the successful set up and management of the EOA



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Role	Description
Facility Director	Responsible for management of the Facilities Management (FM) Department. Must coordinate and supervise FM staff such that quality and security of supply is maintained to the highest possible levels during the EI
Facility Unit Leader (FUL)	Support the Logistics Section Chief (LCS) by maintaining integrity of the physical facility to the best possible standard during an EI, ensuring quality and security of supply
Finance Section Chief (FSC)	Responsible for all financial decision making during the EI, the FSC shall document and approve the acquisition of supplies and services necessary to successfully navigate the Entity through an Emergency Phase
First Aiders	First Aiders shall be trained and competent individuals with responsibility to render first aid to victims at the scene of the EI in support of ESS
Incident Commander (IC)	Chief decision maker responsible for organizing and directing the EOC. IC has overall accountability for safety of people and protection of assets during an EI. The IC shall act as EMC Chair
Information Technology (IT) Unit Leader	Develop and maintain the Entity's internal information network through monitoring and maintenance of the computer system, servers, and internet hardware
Liaison Officer	Liaise with parties external to the Entity based on direction from the CUL
Logistics Section Chief (LSC)	Direct maintenance operations and ensure availability adequate levels of food, shelter, and supplies during the EI
Maintenance Team	Those responsible for maintaining engineering systems
Operations Team	Those responsible for operating engineering systems or aspects of business operations
Planning Section Chief (PSC)	Responsible for effective monitoring and delivery of Emergency Plans. Gathers scenario/resource projections from all Section Chiefs, records deviations from Emergency Plans, and identifies constraints
Procurement Unit Leader (PUL)	Always maintains record of the location of assets, receiving requests for additional assets, and identifying the need for procurement
Resource Pool Leader (RPL)	Roster staff and volunteers on a need's basis during the EI. Maintain adequate staff numbers in the resource pool
Safety and Security Officer	Person with overall responsibility for safety of personnel within the organization. Set up and maintain facility protection and traffic security
Sanitation Systems Officer (SSO)	Reporting to the FUL, SSO monitors the usage of existing sewage and sanitation systems and establishes alternate methods of sanitation if necessary
Senior Leadership Team (SLT)	Those responsible for defining organization policies and for successfully running the organization during normal operations
Subsistence Unit Leader	Organize food and water stores for preparation and rationing during the EI against forecasted periods of shortage
Transportation Unit Leader	Organize and coordinate safe and timely transportation of all personnel and resources, as required. Manage the fleet of entity-owned assets and any vehicles donated to the Entity during an EI

Table 5: Roles and Responsibilities

5.1 Job Card

Job Cards provide examples for each of the above roles for Entity to establish business-specific roles and responsibilities (Refer to **Attachment 9**). These should be used as reference when preparing entity-specific Job Cards during the Pre-Emergency Phase. One card should be prepared for each role as outlined in the EOM. There shall be a Job Card associated with each member of the EMC, as a minimum.



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On appointment to a role within the Incident Command Structure (ICS), the appointed person must sacrifice the normal duties and focus entirely on responsibilities contained within his/her respective Job Card.

Job Cards contribute to a successful EOM due to the following reasons:

- Offer greater descriptions of responsibilities associated with key roles
- Outline primary and secondary focus areas associated with each role
- Indicate interface points between each role
- Enable each Entity to establish a business-specific ICS

Further details on ICS with respect to the reporting order between roles are mentioned in **Section 6.1.2**. An important feature of the ICS is 'span of control'. The ideal maximum span of control is five persons; meaning that each role within the ICS should have no more than 5 direct reports. The idea is to practice effective delegation thereby maximizing involvement of all staff to reduce and simplify the problem. ICS including all reporting lines and Job Cards can feature as part of EPS as described in **Section 6.1.7**.

5.2 First Aid Facilities

Competent Individuals with responsibility and First Aiders shall be trained to render first aid to victims at the scene of EI to enable Emergency Support Services (ESS). Selected benefits of deploying first aid parties to the scene of the EI are as follows:

- Healthcare Facility has better visibility of what's coming
- Patients are treated immediately

Number of patients requiring immediate hospital treatment may be reduced relative to those who were affected by the EI based on the assessment of the First Aider. Injured and wounded persons shall be categorized appropriately based on condition.

6.0 PROCESS

The responsibility of preparing an EOM lies with the EMC. It should be structured into 3 phases, explained in subsequent sections:

1. Pre-Emergency Phase
2. Emergency Phase
3. Post-Emergency Phase

Defining an Emergency

An EI is a natural, intentional, or unintentional incident which leads to any or all of the below:

- A sudden unplanned load upon Entity resources beyond defined limits
- An imminent threat to life
- Damage or high risk of damage to assets

An EI results in forced deviation from normal operating procedures in order to preserve life and assets. EIs may include:

- Evacuation
- Flood/Hurricane
- Communications outage
- Snow/Sand storm
- Fire
- Chemical or Biological incident
- Earthquake



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Declaring an emergency

Thresholds for what constitutes an EI are entity-specific and must therefore, be set by the Entity itself. Sector-specific EMPs offer guidance in defining thresholds for entities within each sector.

Role of the Entity during an emergency

The role of each Entity during an emergency is dependent upon the sector in which it sits and the type of EI which is being faced. The role of each Entity shall be determined by the Entity itself by applying the EM Procedure and associated supporting documentation. Implementing the EM Procedure to prepare a business-specific EOM shall enable clear definitions of individual roles and responsibilities tied to an ICS. Job Card examples in **Attachment 9** provide a summary of these roles, their associated responsibilities, and how each role interacts with the others.

Phases of an emergency

The Process which shall be followed when establishing an EOM is as follows:

6.1 Pre-Emergency Phase

The purpose of the Pre-Emergency Phase (as highlighted in Figure 3 – below) is to:

- Establish the EMC
- Carry out planning
- Implement Hazard Vulnerability Analysis (HVA)
- Establish the EOM
- Establish ICS
- Carry out staff education and training
- Operate emergency exercises and drills

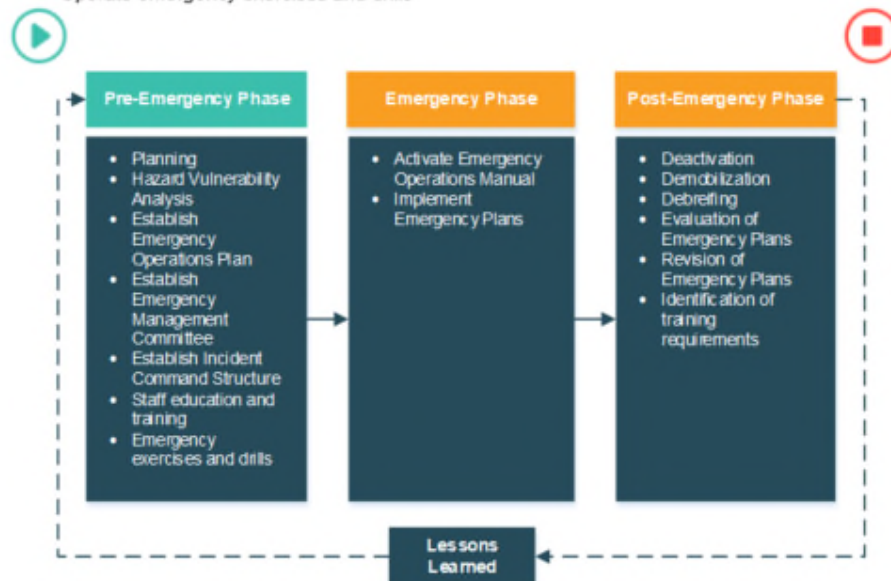


Figure 3: Phases of Emergency



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6.1.1 Emergency Management Committee (EMC)

The EMC shall be responsible for preparing, maintaining, delivering, and developing the EOM. EMC members shall hold accountability for specific roles during an EI.

6.1.1.1 EMC Members

As per the Entity's organizational chart, EMC members shall include members of the Senior Leadership Team (SLT). For example:

- Chief Executive Officer (CEO), Facility Director), President, Governor, or Deputy Governor
- Communications Director
- Department Directors
- Section Chiefs/Department Heads
- Others

The number of EMC members shall be equal to the number of roles outlined in the EOM. Upon being appointed an EMC role, the appointed member of staff shall attend EMC workshops and meetings. Those not appointed an EMC role shall not typically attend workshops or meetings, unless by request of an EMC member for specific input.

6.1.1.2 Forming the Emergency Management Committee (EMC)

EMC is chaired by the IC. It is responsible for convening the EMC and allocating roles according to the ICS outlined within the EOM. If there is a staff shortage during the EI, then members shall adopt more than one role as required or additional qualified members of staff shall be drafted into the EMC to fulfil the deficit. EMC members shall maintain an understanding of all EMC roles and shall be specifically trained to deliver their assigned role. Each EMC member shall be provided their role description within Job Cards which shall form part of an information packs associated with the role.

6.1.2 Incident Command Structure (ICS)

An ICS is a critical aspect of the EOM. It features all those who hold accountability during an EI and clarifies the chain of command. During an EI, the ICS shall over-ride the organizational structure associated with normal operations. Therefore, the SLT with its associated Chairperson and Board Members responsible for decision making during normal operations shall be entirely replaced by the EMC during an EI. Upon deactivation of the EI, organizational control shall revert to the SLT as described in **Error! Reference source not found. 4** (below).

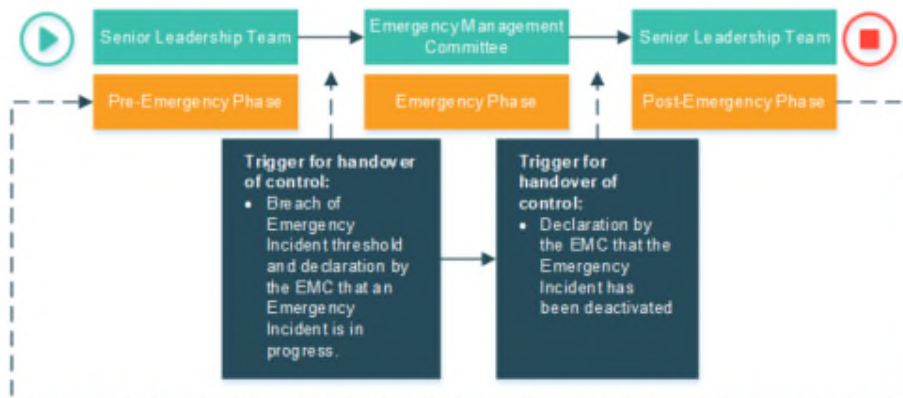


Figure 4: Handover of Organizational Control between SLT and EMC



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ICS shall be entity-specific. However, sample models are provided within sector-specific EMPs. Dependent on the nature of EI, it may not be necessary to fill all of the ICS positions. The number of positions required is determined by several parameters including size and nature of the EI and the sector in which the Entity sits (e.g., Healthcare, Parks & Recreation, Schools & Universities, Roadways, Housing, Municipalities, and Offices). Although, EOM should be adaptable to all foreseeable EI; each EI is unique and should be treated as such. All components of the EOM, including the ICS should be flexible enough to address the specific EI which is underway.

6.1.3 Emergency Support Services (ESS)

ICS does not address the authority held by ESS. Its authority and control over each EI shall be absolute and shall supersede that of ICS for the following reasons:

- ESS shall be contacted immediately upon discovery of an EI. This does not require the input of EMC and is the sole responsibility of party who discovered the EI, irrespective of their role within the Entity
- All EIs shall require ESS input and control
- ESS are specifically trained to manage EIs
- ESS hold the manpower and resources required to quickly move EI to Post-Emergency Phase from the Emergency Phase

When ESS arrive at the scene and there is a dispute over which ESS should lead to resolve EI, authority shall be assigned to the most experienced senior officer.

6.1.4 Hazard Vulnerability Analysis (HVA)

The process of capturing hazards and quantifying the likelihood of hazard occurrence (i.e. risk) as described in **Section 2.1** is done through completion of a Hazard Surveillance Survey (HSS) which shall be carried out during the Pre-Emergency Phase as part of HVA. It will directly affect the content of EOM including, but not limited to:

- Types of envisaged EI
- Prepared EMPs
- Roles and responsibilities
- Shape of the ICS
- Established emergency exercises and drills

HVA should be carried out as a group exercise in line with the Process outlined in **Error! Reference source not found.** (below).



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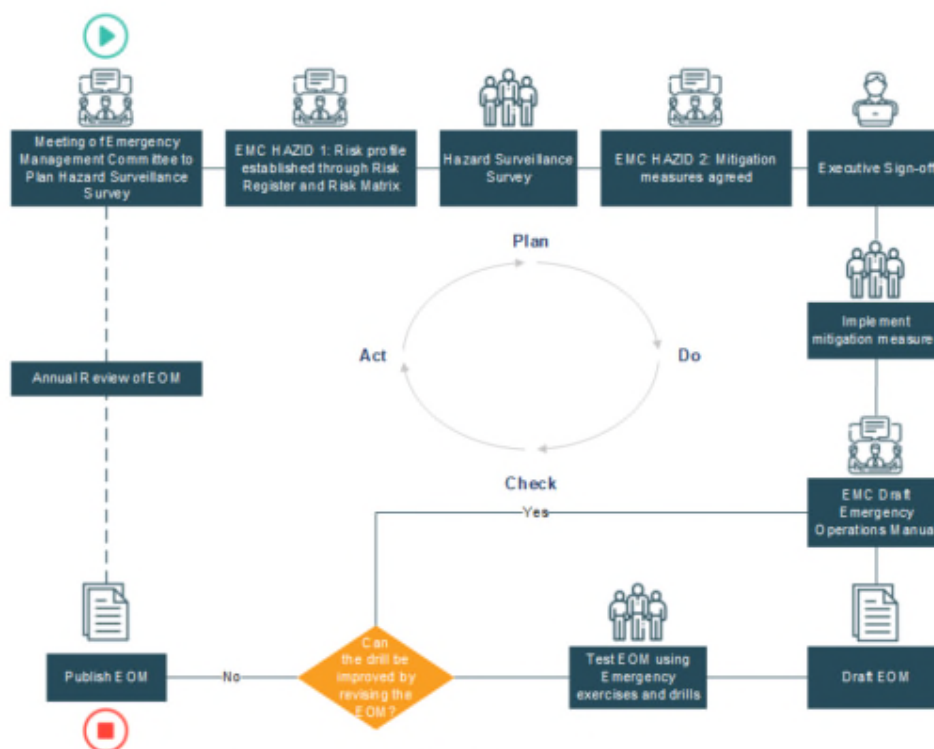


Figure 5: Hazard Vulnerability Analysis Flow Chart

Personnel qualified to carry out HSS and form part of the Hazard Identification Panel (HAZID) must hold an in-depth understanding of the following:

- Entity business operations as a whole including the interdependencies between departments
- Normal Operating Areas (NOAs) and the operations which are undertaken in those areas
- Engineering systems – how they operate and the hazards associated with their operation

The HSS shall be carried out by a team moving through all NOAs and capturing hazards. Risks and mitigations shall be agreed during the HAZID.

6.1.5 Communication Requirements

This section covers all communication requirements associated with an EI. These shall be further developed by each Entity against existing business-specific processes and shall be reflected within the EOM.

6.1.5.1 Communications Plan

A Communications Plan shall be established for the EI. It shall feature interface points between Entity – staff and Entity – external parties (e.g. ESS, other entities, Governing Ministry).



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6.1.5.2 Keeping Informed

While there is a significant focus on those whom are assigned roles within the ICS, all members of Entity staff must also be informed about the EOM:

- Review and understand the Entity's policies and procedures associated with EP
- Review and understand the Entity's EOM including all of its contents
- Feedback to Line Management comments or questions associated with the EOM
- Identify one's specific role within the EOM. If it's not clear, then define it in agreement with the Line Manager
- Understand indicative signs that the EOM has been activated
- Based on one's specific role during an EI, identify and build relationships with stakeholders (e.g., colleagues, public) who shall become key interface points during the EOM
- Attend all briefing sessions associated with EP
- Actively participate in emergency exercises and drills
- Review Meeting Minutes from Entity's previous EMC meetings
- Complete all mandatory training

Each Entity can support its staff in keeping informed through a communication campaign which uses tools such as:

- Posters in break out areas
- News articles posted on the company intranet
- An e-leaflet distributed by e-mail
- A booklet issued during staff induction
- Others

6.1.5.3 Methods of Communication

The FM Department must guarantee quality and security of supply, both during an EI and normal operations. Key Performance Indicators (KPIs) shall be set during the Pre-Emergency Phase based on an assessment of the following as a minimum:

- Network availability as a percentage value against time (quality)
- Network resilience in terms of main and back-up channels (e.g., n+1, n+2) and back-up technologies/mediums of communication
- IT network speed {Megabits per second (Mbps) or other appropriate metrics}

This commitment shall govern other parameters to meet the obligations for quality and security e.g., minimum level of required spares and required infrastructure investment. The FM Department shall quantify its commitment as part of the EOM. As a minimum, this department shall:

- Ensure availability of communication devices that do not rely on functioning electricity network. Should devices be battery powered, they must hold lifetime suitable to withstand the power outage period based on needs assessment
- Establish performance guarantees for maintenance and restoration of communications network with local telephone service provider

Examples of communication systems which may be adopted by the Entity as a primary source or back-up communication medium are listed below:

- Mobile Command Vehicles (MCVs)
- Physical runners to communicate needs
- Web-based communication platforms
- High-speed Wide Area Network (WAN) or Local Area Network (LAN) by means of fiber optic cable
- Satellite communications
- Mobile telephone
- Landline telephone
- Portable Mobile Radios (PMRs)
- Integrated Services Digital Network (ISDN) – a dial-up connection that can be used for video conferencing
- Large signs physically displayed in paper format on an Emergency Bulletin Board (wipe boards)
- Light-emitting diode (LED) screens linked to portable Personal Computers (PCs)



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- Tablet devices
- Large sign physically displayed in paper format at the location where it is required (e.g. to demarcate EOAs)
- Asset and personnel Global Positioning System (GPS) locator devices
- Forums for face-to-face two-way communications
- Involving the news media (e.g., television, radio)
- Closed User Group (CUG) for specific purpose (e.g. EMC WhatsApp Group)
- Loudspeakers/Public Announcement (PA) System

6.1.6 Signage

Regardless of communications systems which are in place, posting of physical signage will likely be required during an EI. For example, in hospitals faced with an outbreak of communicable diseases.

Well positioned signage has a significant impact on the outcome of EI. For example, early recognition of a communicable disease during a public health crisis is critical to effective triaging of patients and minimizing transmission of the disease.

Entity FM personnel, acting under the direction of EOA Supervisor within the EOA shall be responsible for the erection and positioning of signage.

6.1.7 Emergency Preparedness Software (EPS)

EPS are web-based systems which allow users to apply a range of EM mechanisms. This may include functions including, but not limited to:

- Assessment and mitigation of risk
- Monitoring of staff movement
- Raising awareness
- Monitoring
- Trending of incidents and accidents

The most advanced EPS systems feature mobile applications and provide tools for shared situational awareness, workflow-based information management, and real-time communication. They also provide a common platform for secure communication, multi-agency collaboration, and real-time situational awareness which can be tailored to the needs of the Entity. Examples of common EPS systems currently available include, but are not limited to:

- Disaster LAN (DLAN)
- ArcGIS for Emergency Management
- LiveSafe
- OpsCenter
- Veoci
- WebEOCx
- ARCOS Incident Manager
- CatapultEMS
- CIM
- COBRA
- CoreCCS

Each Entity should consider implementing an EPS system based on a needs assessment. Factors which influence the case for implementing an EPS system include e.g., number of buildings, number of employees, sector in which the Entity operates, outcome of HVA.

A large portion of the EOM can effectively be delivered using EPS and is therefore a valuable tool in the event of an EI.



Emergency Management Procedure

6.1.8 Enterprise Asset Management Systems (EAMS)

Entities may employ the use of EAMS during normal operations. EAMS have the functionality to:

- Capture asset hierarchy
- Record maintenance events
- Monitor and track asset degradation as part of the maintenance strategy

During an EI, use of EAMS is not an obligatory requirement.

6.1.9 Emergency Warning Signals (EWS)

An EWS is used to intimate the presence or disappearance of sources that are a threat to life or property. Types of EWS include e.g., text message, social media message, PA System, e-mail, EPS. If an Entity intends to use EWS, it shall not interfere with Civil Defense assigned EWS for wider public use which has a precedence over entity-specific tones under all circumstances.

The Saudi Arabian Civil Defense uses three types of EWS and are required to be understood by everyone.

6.1.9.1 Types of Tones

The types of tones which shall be implemented by the Entity as follows:

Early Warning: Pre-Emergency Phase

This is a fixed intermittent tone that continues for a period of one minute and indicates early warning for proximity of danger.

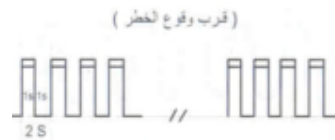


Figure 7: Fixed Tone

Instructions which may be issued on dissemination of this tone include:

- Wear protective clothing against harmful materials (such as chemical, biological, or radiation)
- Go to a secured location (such as shelter, out-building, or basement)
- Stay away from windows and volatile materials
- Await further instructions

Imminent Danger: Emergency Phase

The undulating tone indicates imminent danger and lasts for a period of one minute. It is used to confirm that indeed the danger, which was envisaged, is a reality now.

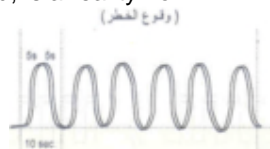


Figure 8: Undulating Tone



Emergency Management Procedure

Tone 2 is used directly without warning under circumstances where the EI cannot be forecasted. In such case, Tone 2 shall be heard without Tone 1 having been heard.

Instructions which may be issued on dissemination of this tone include:

- Continue to wear protective clothing against harmful materials (such as chemical, biological, or radiation)
- Remain in a secured location (such as shelter, out-building, or basement)
- Continue to stay away from windows and volatile materials
- Await further instructions

Danger has Passed: Post-Emergency Phase

Tone 3 is a fixed, continuous tone which lasts one minute and indicates that the danger has passed.



Figure 9: Fixed Continuous Tone

It is possible to move from Tone 1 to Tone 3 directly, should the danger never actually be realized.

Instructions which may be issued on dissemination of this tone include:

- Do not take off the protective clothing until instructed to do so
- Remain in a secured location (such as: shelter, out-building, or basement) until instructed that it is safe to leave
- Continue to stay away from windows and volatile materials
- Await further instructions

6.1.9.2 Application of Emergency Warning Signals (EWS)

The Saudi Arabian Civil Defense utilize EWS during the following occasions:

- During peace times:
 - Natural phenomena (e.g., floods, volcanoes, hurricanes, landslides)
 - Industrial disasters (e.g., radioactive leaks, state-owned biological, chemical weapons)
- In cases of emergency and war:
 - Acts which are likely to cause harm on a large scale to state-owned property, Saudi Nationals, or expatriates under the care of the Kingdom of Saudi Arabia

There are thresholds set by the Civil Defense which govern the use of EWS and consider factors such as:

- Population density
- Economic importance
- Military importance
- Environmental importance
- Places of historical, cultural, or international significance (e.g., the religious significance to the Holy Cities of Mecca and Medina)



Emergency Management Procedure

Triggers should be set within the EOM which govern occasions on which the Entity shall be responsible for raising the EWS and when it can depend entirely on the Saudi Arabian Civil Defense.



6.1.9.3 Emergency Exercises and Drills

Once the EOM is in place, it must be rigorously tested. Emergency exercises and drills shall be developed through HVA, staff feedback shall also be used to continuously improve the EOM. Emergency exercises and drills are one of the primary methods of staff training.

The Emergency Exercise & Drills Procedure (EOM-ZE0-PR-000002) offers guidance to entities on the preparation and delivery of emergency exercises and drills such that each Entity can prepare and deliver business-specific emergency exercises and drills.

6.1.10 Emergency Plans (EP)

Emergency Plans are used to outline priorities, objectives, and tasks aligned with a range of EIs. Plans shall be developed during the Pre-Emergency Phase based on outcomes from HVA, staff feedback, and emergency exercises and drills. Emergency Plans are designed to address immediate objectives during the EI and shall be delivered during the Emergency Phase between activation of the EOM and reaching a steady state.

During an emergency, personnel may find themselves deviating from EPs arising from a specific need. In this case, deviations should be agreed and actioned, but feedback should be captured during Post-Emergency phases as to why deviation was required.

EPs are specific to each Entity but should typically include the following elements:

- Listing of objectives to be accomplished – should be measurable
- Statement of priorities related to objectives
- Statement of strategy to achieve the objectives – identify if there is more than one way to accomplish the objective, and which way is preferred
- Assignments and actions necessary to implement the strategy including whom, what, where, and when
- Operational period designation – the time frame necessary to accomplish the actions

Guidance regarding sector-specific EPs are provided in a procedure-format to enable each Entity for successful establishment of business-specific EPs.

6.2 Emergency Phase

The purpose of the Emergency Phase is to:

- Confirm EI
- Contact ESS
- Activate Emergency Phase
- Implement the EOM



Emergency Management Procedure

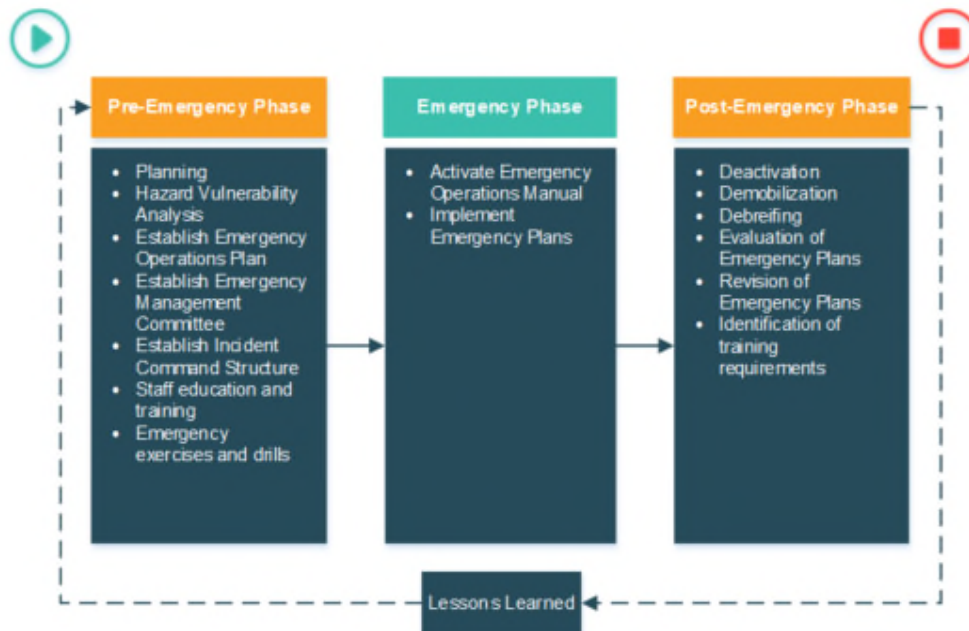


Figure 10: Phases of Emergency

6.2.1 Activation of the Emergency Operations Manual (EOM)

Information regarding the EI is shared throughout the Entity up to the SLT, and also communicated to ESS or vice-versa (dependent on which party is first to identify the EI).

The EMC convenes to verify the EI and gather full data which will facilitate in deciding whether an EI is occurring which is significant enough to breach set thresholds and will activate the EOM. Data which shall support the decision as to whether the EOM should be activated by the EMC may include:

- Nature and magnitude of incident
- Possible numbers of victims
- Location
- Time of Incident
- Victim time of arrival (for hospitals)

Following analysis of the EI data, the EMC Chair shall gather the analysis and compare against EI activation thresholds which were set during the Pre-Emergency Phase (during establishment of the EOM). Based on the analysis, the EMC Chair shall either decide to activate the EOM and proceed to the Emergency-Phase, or to close the EMC meeting and proceed to the Post-Emergency Phase.

If the EOM is activated, the following shall take place:

- ICS shall come into immediate effect
- The EMC Chair shall assign each member of the EMC with their role and associated responsibilities
- The EMC Chair shall draft a consistent, clear, and concise communication regarding the EI and work with the Communications Chief to complete the finalized version
- Whoever is appointed to the role of Communications Unit Leader CUL shall issue a communication to all staff within the Entity via several mediums (e.g., e-mail, PA System, notice on Emergency Bulletin Boards)
- FM Department shall establish EOA and adopt performance guarantees as set out in the EOM. The primary aim is to preserve life and ensure quality and security of supply
- All the staff members shall report to the respective EOAs, and comply with instructions from the EOA Supervisor; executing Emergency Plans to safely manage through the EI

Do Not Delay



Emergency Management Procedure

It is likely that the emergency will be in progress (e.g., ESS may be on the scene, and there may be casualties). Decisions should be taken as quickly as possible based on information which is available at the time. Do not delay appropriate action for the purposes of executing a process. The process is to facilitate the action, not impede it.

Presented below is the model process that can be adopted by each Entity to support in the establishment of its entity-specific EOM Activation/De-activation Process.

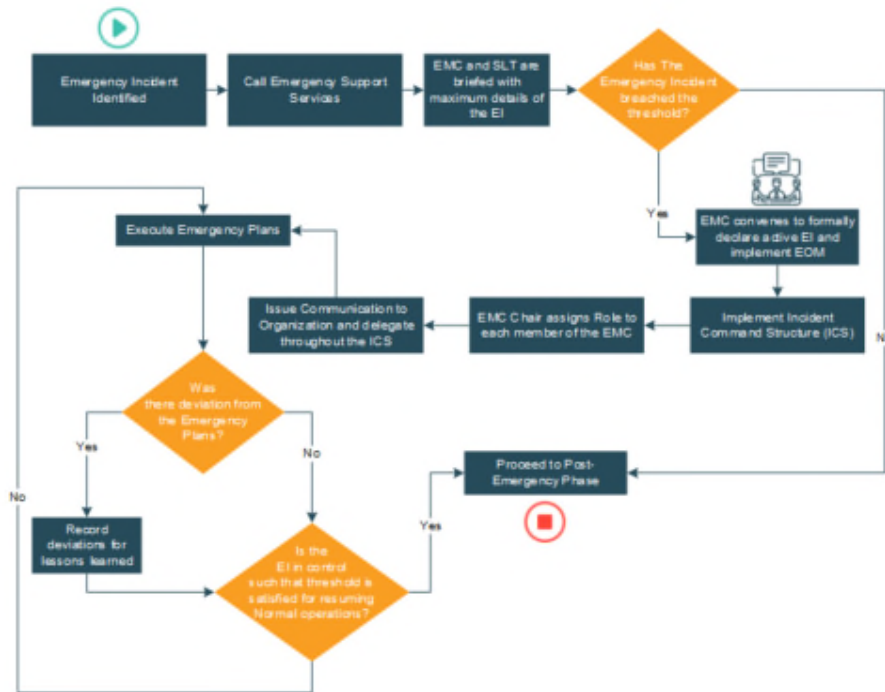


Figure 11: Activating and De-activating an EI

6.2.2 Activation of Emergency Operating Areas (EOA)

Establishment of EOM is one of the first items contained within EPs. Examples of operating areas which may be required during an EI are as follows:

- EOC
- Communications Office
- Security Office
- Waiting Area
- Reception/Triage Area
- Decontamination Area
- Minor Treatment Area
- Intensive Care Unit
- Mortuary
- Holding area for relatives/non-injured.
- Area for holding media briefings (separate media/PRO/spokesperson room)
- Area for holding patients in case a part of the hospital is evacuated

Further details pertaining to sector-specific operating areas are contained within sector-specific EPs.



Emergency Management Procedure

It is the responsibility of FM Department to support in the safe establishment of operating areas during an EI. Operating areas may retain the same function and size as was before the EI; they may require extension; or be repurposed specifically for the EI. Involvement of FM personnel during the setup of an operating area shall be determined using the following Process:

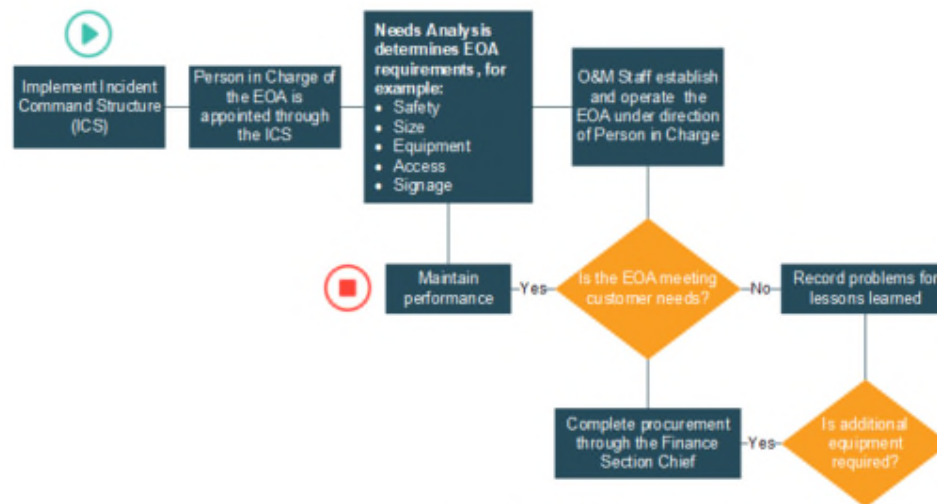


Figure 12: Establishing an EOA

The FM personnel assigned to establish the operating area shall operate under the direction of whosoever is mandated to lead the area. Such details shall be contained within the EOM. FM personnel shall act in a supporting role during establishment of operating areas, unless otherwise stated in the EOM.

The entity-specific EOM shall feature an Operating Area Map (OAM) showing EOAs overlaid on top of NOAs. Capacities of the NOAs should also be mentioned alongside those of EOAs on these maps.

6.2.2.1 Setting up the Emergency Operations Center (EOC) and the Communications Office

EOC shall feature the most reliable communication network available to the Entity. The FM is responsible for establishing a suitable communications network which meets guaranteed performance requirements (of which network availability shall be a KPI). Maintenance personnel are also responsible for maintaining all communication assets. The EMC Chair shall operate from the EOC and should hold the following to enable delivery of responsibilities:

- Contact telephone numbers (or direct link through PMR) of all staff holding a role in the ICS
- Direct contact details of individuals assigned to the Entity by ESS (e.g., Police, Red Crescent, and Civil Defense)

The EI may dictate that EOC is purely for internal management of the EI, while a separate Communications Office is responsible for managing all communications outside of the Entity (e.g., public enquiries, media, community liaison).

Most senior person from the ESS is likely to take control of the EI in its Entity. The EOC shall also be used as a base for ESS, should it enable more efficient handling of the EI.

6.2.3 Site Access During an Emergency Incident (EI)

This section makes reference to two main groups for whom site access is important, however a finalized list along with relevant justification and access procedures shall be required to be produced as the Entity enables the standard.



Emergency Management Procedure

6.2.3.1 Access for Staff

Staff may be required to access site during an EI. While access should be carefully monitored and controlled to the site of EI, people who are authorized and whose presence is required to support in handling the EI should be able to gain access as quickly and efficiently as possible. Security staff shall collaborate with ESS to control site access.

6.2.3.2 Access for Media

The media (e.g., television, newspapers, radio, online) can be used as a useful tool in disseminating information to the public. However, media personnel should not be placed in danger or inhibit the work being done by Entity staff or ESS. Their access to site should therefore be restricted and their CUL shall be responsible for coordinating with ESS to determine the level of access rights which should be held by the media.

6.2.4 Quality and Security of Supply

FM personnel shall be expected during an EI to ensure quality and security of supply and to preserve life.

6.2.4.1 Subsistence

While management and control of subsistence, rest areas, and eating spaces shall lie with others (Job Cards), FM personnel shall be responsible for the establishment of rest areas and eating spaces, also such spaces are considered EOAs as well. FM personnel shall, as required by the EOA Supervisor, support in the preparation and distribution of subsistence. This responsibility shall be particularly important in the absence of an on-site canteen with catering staff. Maintenance personnel shall be responsible for ensuring availability and functioning of kitchen equipment (e.g., cookers, urns, hot cupboards).

6.2.4.2 Essential Services

Sanitation and Waste Services

Bathrooms and toilets are likely to be under additional strain during an EI. It is the responsibility of maintenance personnel to ensure that availability and reliability of sanitation services are maximized during an EI. The FM Department shall assess the need for additional temporary supplies, then procure such supplies as required, based on the needs assessment.

Potable Water

The FM Department is responsible for ensuring quality and security of water supply such that the additional requirement of water during an EI is met, with limited reserve based on a needs assessment. A needs assessment undertaken by FM personnel shall necessitate the requirement for procurement, installation and commissioning of storage tanks which can provide water in case of possible breakdown in the normal system of supply. During the Pre-Assessment Phase, FM personnel shall carry out HVA of water supply and highlight gaps in existing assets or infrastructure, then upgrade infrastructure as required. Call-off Contracts shall also be activated with companies which can provide potable water tankers during the Emergency Phase. Emergency Plans prepared by each Entity shall contain a list of suppliers who have agreed short-term arrangements during activation of the EOM.

Light and Power

Provision should be made for standby generators to provide light and power to each EOA in the event of a power outage. The standby generators shall be connected to the Essential Services Board and shall be either fixed or portable dependent on a needs assessment carried out by Operations and Maintenance (O&M) personnel during the Pre-Emergency Phase.

The FM Department shall suitably liaise with local Distribution Network Operators dependent on the voltage level at which the Entity operates (e.g., National Grid SA, Saudi Electric Company).



Emergency Management Procedure

Specific steps to be undertaken by FM personnel include:

- Establish a register of essential equipment and systems that will need continuous power. This may be based on the asset hierarchy, if one is in place. In case where asset hierarchy is not in place then the register should be prepared manually and later updated
- Carry out a Load Demand and Protection Setting Study – this will require the use of power system design software {e.g., Electrical Transient Analyzer Program (ETAP), Power World} and will allow the Entity to determine key parameters such as:
 - Maximum length of time the clinic will operate on emergency power
 - Power peaks
 - Demand Factor
 - Capacity Factor
 - Correct Protection Settings
 - System Constraints
- Establish network re-enforcement requirements; requirement for Uninterruptable Power Supply (UPS), batter banks, and standby generator requirements/specifications, as required
- Perform maintenance for all assets in line with Maintenance Plans

Office Equipment

- Install surge protectors to protect office equipment against electrical spikes
- Secure equipment and/or elevate equipment as appropriate during time of flood risk and water main breach

Fire Fighting

- Ensure that firefighting equipment is checked for operation and inspected according to manufacturer's recommendations. Set up third party calibration and maintenance contracts, as required. Do not assume life support services are unaffected by the EI

6.2.4.3 Other Considerations

Spare Parts

The FM Department must maintain critical spare parts to support normal operations. However, an EI may call for additional spares than would be required during normal operations. The FM Department must guarantee infrastructure quality and security of supply during an EI. This commitment shall govern the minimum level of required spares. FM Department shall quantify its commitment as part of the EOM.

Fleet Management

It is the responsibility of FM Department to manage and maintain vehicles during normal operations. However, an EI calls for increased availability of vehicles than would be required during normal operations. The FM Department must, therefore, guarantee maximum availability of vehicles during an EI. The FM Department shall quantify its commitment as part of the EOM.

Given the criticality of vehicles to normal operations and the increased reliance on vehicles during an EI, particularly within some sectors (e.g. Healthcare); the FM Department may be required to re-purpose vehicles for a guaranteed performance. Within Healthcare Facilities, for example, ambulances for lying cases may be improvised from trucks, and buses with adequate stretcher fitments. While vehicles for first aid parties and sitting casualties may be improvised from private cars, vans, taxis, and other similar light vehicles.

Security Requirements during an EI

Security Services shall feature as part of the FM Department. During an EI, the Entity is likely to experience substantially higher levels of traffic than under normal conditions (e.g. relatives, by-standers, ESS, media). Increased traffic leads to increased loitering in car parks, operating areas, and access/egress points.



Emergency Management Procedure

Manned Guarding

While majority of the FM personnel shall be responsible for keeping people safe from assets, security personnel shall be responsible for monitoring and controlling car parks, operating areas, and access/egress points. During an EI, security personnel shall have increased responsibilities as per the entity-specific EOM. Such responsibilities may include, for example:

- Coordinate and collaborate with ESS (e.g., Police, Red Crescent, and Civil Defense)
- Maintain order across all entity-owned grounds
- Direct traffic so as not block access/egress of emergency support vehicles
- Protect Entity assets, resources, and personnel from attack and resultant damage as so far as individual abilities
- Restrict and strictly control access to Entity grounds and buildings
- Direct authorized personnel to appropriate operating areas
- Issue identity cards in exchange for personal documents and safely store personal documents
- Manage, monitor, and control lost & found

Guidance related to Security Systems Operations is offered within sector-specific documents featured within NMA&FM Volume 5, Chapter 9 (EOM-ZO0-PR-000040 to EOM-ZO0-PR-000045).

Security Systems

Security personnel shall execute their responsibilities as defined within Job Cards and in line with training and experience mandated by the Entity. Security systems shall fall under the operational control of security personnel and maintained by maintenance personnel. Examples of security systems which may be found in entities are as follows:

- Security alarm systems
- Walk-through/handheld metal detectors
- Body scanners
- Visual Display Units
- Security barriers/Gate systems

During an EI, FM personnel (including security personnel) shall be responsible for making alterations to and establishing security systems.

Guidance related to Security Systems Maintenance Plans is offered within sector-specific documents featured within NMA&FM Volume 6, Chapter 11 (EOM-ZM0-PL-000037 to EOM-ZM0-PL-000042).

6.3 Post-Emergency Phase

The purpose of the Post-Emergency Phase is to:

- De-activate the EI
- Demobilize staff
- Debrief staff
- Carry out evaluation of the EOM
- Revise the EOM
- Identify staff education and training requirements



Emergency Management Procedure

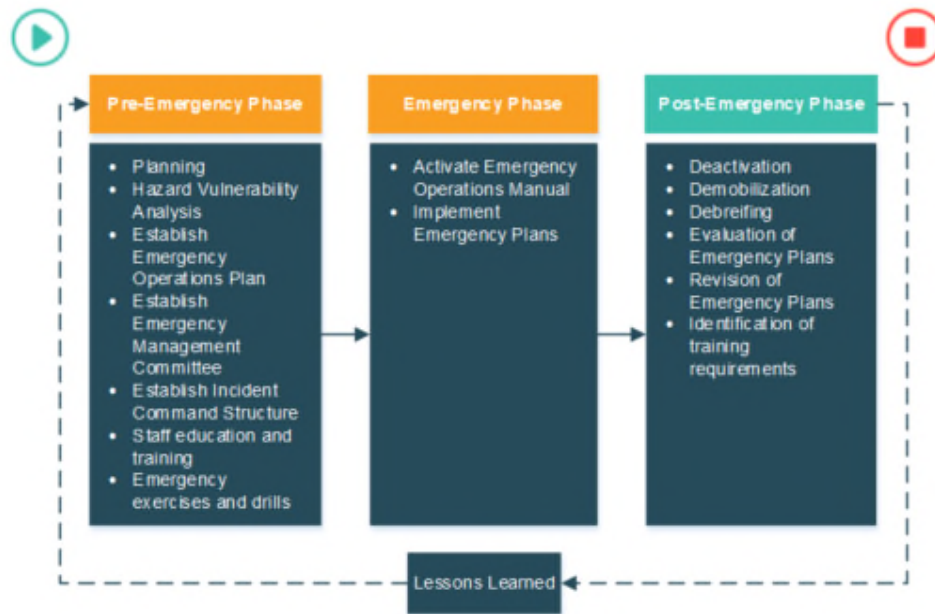


Figure 13: Phases of Emergency

6.3.1 Deactivation/Demobilization

Announcing deactivation of the EI is a key component of the EOM. At this point, control of the organization shall be handed over from EMC to the SLT.

The decision to deactivate EOM is the responsibility of IC and should only be taken following assessment and reporting of the situation. The decision to deactivate EOM carries the same gravity as the decision to activate the EOM and should not be taken lightly. Deactivating the EOM too early could lead to the follow:

- Inability to re-activate the EOM should the EI not truly have ended
- Inability to return to normal operations
- Confusion as to who is in charge of the organization

Only once the IC and other members of the EMC appointed within ICS are convinced that the EI is truly over and that the Entity can return to normal operations, the decision can then be made (by the IC) to deactivate the EOM.



Emergency Management Procedure

De-activation of the EI shall be governed by the following process:

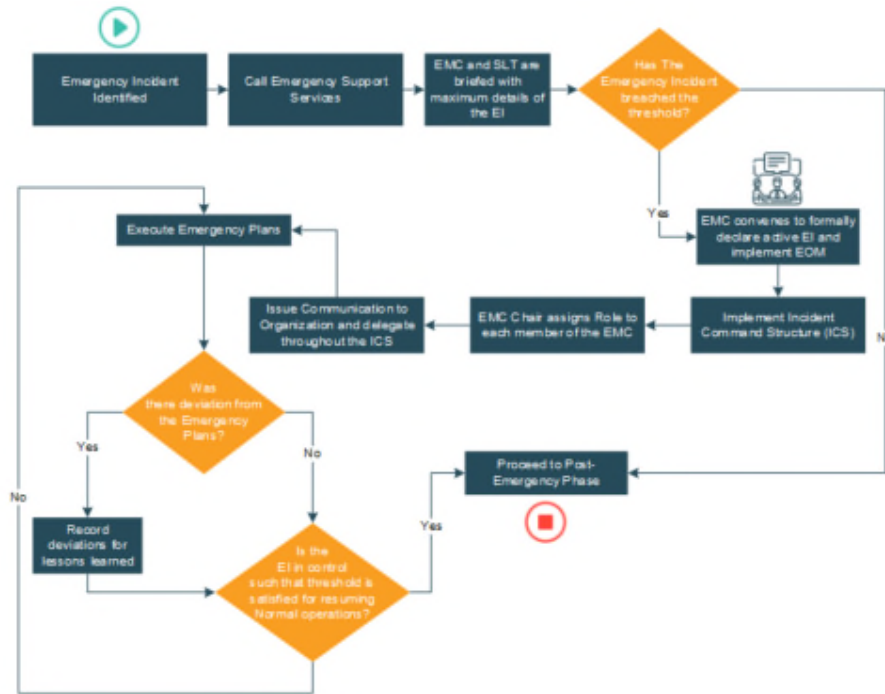


Figure 14: Activating and De-activating an EI

6.3.2 Post-Emergency De-briefing

Following deactivation of the EOM and handing over of organizational control to the SLT, EMC shall convene to capture the lessons learned, immediately after it is reasonably practicable while fresh in everyone's mind. An EI Summary Report shall be prepared and submitted to the SLT by EMC. Report shall feature the following components:

- Nature and cause of the incident
- Number of casualties
- List of asset damage and associated cost
- Best practice and problem areas witnessed during the EI
- Resultant areas of improvement for the EOM
- Recommendations

Recommendations contained within the EI Summary Report may include e.g., staff training, infrastructure reinforcements, new assets to be procured. EMC shall follow up on the recommendations and ensure completion of actions in a timescale set out in the report.

6.3.3 Evaluation of the Emergency Operations Manual (EOM)

EOM shall be evaluated annually by the EMC to assure that it meets the needs of the Entity based on the HVA. At minimum, the EOM shall be reviewed annually to identify components that require update, insertion, or deletion. The Entity shall test the EOM twice per year, through emergency exercises and drills and shall ensure compliance with latest guidance from the Saudi Arabian Civil Defense, and the Saudi Arabian Ministry of Interior. It shall also ensure compliance with best practice as laid out by the Federal Emergency Management Agency (FEMA) of the United States of America (USA).

6.3.4 Training Requirements



Emergency Management Procedure

While training is delivered during the Pre-Emergency Phase, its requirements are largely captured during Post-Emergency Phase based on feedback and lessons learned. However, training requirements may also arise during the Pre-Emergency Phase as a result of lessons learned associated with execution of emergency exercises and drills.

Common focus areas for training are:

- Task-specific skills required to perform duties (e.g., Fire Warden training, first aid training)
- Methods of communication (e.g., influencing skills training, crisis management training)
- Procurement and processes during an EI (e.g., EM software training)

Training is a vital part of continuing efforts to strengthen EP throughout the Entity.

7.0 ATTACHMENTS

1. Attachment 1 – EOM-ZE0-TP-000001 – Facility Operational Status Survey Template Hazard Surveillance Survey (HSS) Template
2. Attachment 2 – EOM-ZE0-TP-000002 – Hazard Surveillance Survey (HSS) Template RACI (Responsible, Accountable, Consulted, Informed) Matrix Template
3. Attachment 3 – EOM-ZE0-TP-000003 – 3rd Party Contact List Template Staff Assignment List Template
4. Attachment 4 – EOM-ZE0-TP-000004 – RACI Matrix Template Procurement Summary Report Template
5. Attachment 5 – EOM-ZE0-TP-000005 – Stakeholder Management Matrix Template
6. Attachment 6 – EOM-ZE0-TP-000006 – Staff Assignment List Template
7. Attachment 7 – EOM-ZE0-TP-000007 – Resource Accounting Register Template
8. Attachment 8 – EOM-ZE0-TP-000008 – Procurement Summary Report Template
9. Attachment 9 – EOM-ZE0-TP-000009 – Emergency Job Card Templates



Emergency Management Procedure

Attachment 1 – EOM-ZE0-TP-000001 – Facility Operational Status Survey Template

The Facility Operational Status Survey is to be carried out on a regular basis both during Pre-Emergency, Emergency, and Post-Emergency Phases. During the Pre-Emergency Phase, it will inform the Risk Register during the Emergency Phase, it will inform Emergency Plans; and during the Post-Emergency Phase, it will inform Corrective Maintenance activities.

Date: ____/____/____

Operator Name: _____

Time: _____

Location: _____

System	Operational Status	Comments (if non-operational give reason and estimate time/resource required to repair)
Structural components		
Electrical power primary supply		
Elevators/Lifts/Travellators		
Electrical power secondary supplies and back-up generator		
Service water		
Potable water		
Drainage		
Gas supply (i.e. natural gas, CO2, etc.)		
Service air/oil/chemical supply		
Oxygen		
Environment		
Air compressor		
Firefighting systems		
Water heater and circulators		
Heating, Ventilation, and Air Conditioning (HVAC)		
Pneumatic tube		
Communications (Telephone, internet, radio devices, pagers)		
Kitchen equipment		
Laundry equipment		
Security systems		



Emergency Management Procedure

Attachment 2 – EOM-ZE0-TP-000002 – Hazard Surveillance Survey (HSS) Template

The Hazard Surveillance Survey (HSS) is to be carried out during the Pre-Emergency Phase as part of Hazard Vulnerability Analysis (HVA). It will directly affect the outcome of the Risk Register, and in turn, the content of the Emergency Operations Manual.

Date: ____/____/____ Operator/Inspector Name: _____

Time: _____ Location: _____

Complete the below table placing a tick (✓) in the box which corresponds to the score assigned to the prompt question.

Scoring Legend:

- 1 = Outstanding
- 2 = Good
- 3 = Satisfactory
- 4 = High risk
- 5 = Unsatisfactory

Adjacent to field marked "Subtotal", insert a number based on the number of ticks applied to each score.

Adjacent to field marked "Category Total", insert a number based on the summation of the subtotals.

Category	Prompt Question	1	2	3	4	5	Comments
Safety Management	1. Are the grounds clean and free of hazards?						
	2. Are floors clean, dry, in good repair, and free from obstruction?						
	3. Are mechanisms for access (i.e. ramps, handrails, door opening mechanisms, etc.) operational?						
	4. Is parking free of potholes and other hazards?						
	Category Subtotals						Category Total:
Security Management	5. Are doors functioning and locked as required?						
	6. Are filing cabinets locked and accessible only to authorized personnel?						
	7. Are alarms function, tested, and maintained according to manufacturer's instructions?						
	8. Are systems/mechanisms in place to quickly notify ESS and Senior Leadership Team in the event of an EI?						
	Category Subtotals						Category Total:
Hazardous Materials and Waste Management	9. Is Control of Substances Hazardous to Health (COSHH) documentation available and utilized?						
	10. Have all biohazard and toxic substances present been identified?						



Emergency Management Procedure

	10. Are Material Safety Data Sheets (MSDS) provided and reflected within the Risk Assessment?						
	11. Is all waste contaminated with blood/bodily fluid considered and handled as infectious?						
	12. Are safety-compliant sharps containers (i.e. puncture resistant, etc.) utilized?						
	13. Are Personal Protective Equipment (PPE) and workplace controls in effect?						
	14. Are batteries, equipment containing chlorofluorocarbons (CFCs), asbestos, lamp fittings, all safety disposed of in a sustainable way?						
	Category Subtotals						Category Total:
Emergency Management (EM)	15. Is there existing Emergency Plans in the department?						
	16. Has a non-fire related Emergency Drill been performed within the last 3 months?						
	17. Is staff aware of at least 3 potential non-fire emergencies and their role in an E?						
	18. Is staff aware of emergency exits?						
	19. Is staff aware of the process by which to raise awareness of hazards and make suggestions for continuous improvement?						
	Category Subtotals						Category Total:
Life Safety Management	20. Is the Evacuation Plan and associated Procedure posted and can all staff demonstrate knowledge of the Plan?						
	21. Are fire extinguishers located in accordance with National Fire Protection Association (NFPA) standards?						
	22. Are fire extinguishers inspected monthly and documented on a tag attached to the fire extinguisher with a central register held elsewhere?						
	23. Are exits and hallways well-lit and obstacle free?						
	24. Is emergency exit lighting operational and tested in accordance with NFPA standards?						
	25. Are fire doors operating effectively?						
	26. Are fire detection systems functioning, tested, and maintained in accordance with manufacturer instructions?						
	27. Are firefighting/fire suppression systems functioning, tested, and maintained in accordance with manufacturer instructions?						
	28. Are "No Smoking" signs clearly displayed and adhered to throughout the facility?						



Emergency Management Procedure

Recognition of Risk:

"I confirm that I have read the results of the survey, that the results have been stored in the document management system. I also confirm that actions have been taken as follows:"

Finally, the Risk Register and Emergency Operations Manual have been updated as appropriate".

Name:

Signed:

Role (i.e. Safety Officer, etc.):



Emergency Management Procedure

Attachment 3 – EOM-ZE0-TP-000003 – 3rd Party Contact List Template

The 3rd Party Contact List is used during the Emergency Phase to identify individuals who are actively involved, or may be required to be actively involved in addressing the EI.

	Telephone (+966)	E-mail	Contact Person
Police			
Civil Defense			
Red Crescent			
Ministry of Health			
Gas main (e.g. Aramco)			
Water main (e.g. National Water Company (NWC))			
High Voltage (HV) Power (e.g. Saudi Electricity Company (SEC))			



Emergency Management Procedure

Attachment 4 – EOM-ZE0-TP-000004 – RACI Matrix Template

The RACI (Responsible, Accountable, Consulted, Informed) Matrix is designed to be used during the Emergency Phase to track tasks assigned to large numbers of staff. It should be used by Department Heads, or by members of the EMC.

KEY

- R = Responsible
- A = Accountable
- C = Consulted
- I = Informed

	Incident Commander	Safety and Security Officer	Logistics Section Chief	Facility Unit Leader	Damage Assessment and Control Officer	Communications Unit Leader	Planning Section Chief
PRE-EMERGENCY PHASE							
a) Emergency Preparedness Planning and Hazard Vulnerability Analysis	R/A	C	C	C	C	C	C
b) Establishing Emergency Operations Manual	A	C	C	C	C	C	C
c) Establish Emergency Management Committee and Incident Command Structure	C	C	C	C	C	C	C
d) Staff education, and execution of Emergency Drills	A	C	C	C	C	C	C
e) etc.							
EMERGENCY PHASE							
a) Review Emergency Incident threshold criteria against information collected regarding the Emergency	R/A	C	C	C	C	C	C
b) Activate the Emergency Incident and implement the Emergency Operations Manual	R/A	C	C	C	C	C	C
c) Issue communication to all staff and stakeholders	A	C	C	C	C	C	C
d) Set up Emergency Operating Areas	A	C	C	C	C	C	C
e) etc.							
POST-EMERGENCY PHASE							
a) Deactivation of the Emergency Incident, Demobilization and debriefing of staff	R/A	C	C	C	C	C	C
b) Evaluation of the Emergency Operations Manual	A	C	C	C	C	C	C
c) Revision of Emergency Operations Manual	A	C	C	C	C	C	C
d) Identification of staff training and education requirements	A	C	C	C	C	C	C
e) etc.							



Emergency Management Procedure

Attachment 5 – EOM-ZE0-TP-000005 – Stakeholder Management Matrix Template



Emergency Management Procedure

The Stakeholder Management Matrix is designed to be used during the Emergency Phase to tie entity staff members to those mentioned in the 3rd Party Contact List. It is typically controlled by the Communications Officer, or the Liaison Officer.

Stakeholder Name	Organization	Position	E-mail	Telephone	Current Position (i.e. <ul style="list-style-type: none">• Unaware• Aware• Understands• Committed• Active on scene	Desired Position (i.e. <ul style="list-style-type: none">• Unaware• Aware• Understands• Committed• Active on scene	Actions (i.e. what must be done to move the stakeholder from current to desired)	Responsible (i.e. who is responsible for taking action?)
	Police							
	Civil Defense							
	Red Crescent							
	Ministry of Health							
	Gas main (e.g. Aramco)							
	Water main (e.g. NWC)							
	HV Power (e.g. SEC)							



Emergency Management Procedure

Attachment 6 – EOM-ZE0-TP-000006 – Staff Assignment List Template

The Staff Assignment List should be used during the Emergency Phase to track staff locations against EOAs. It is typically managed by Department Heads or by the Facility Director.

Role	Name	Emergency Operating Area Assigned	Time Assigned	Time Returned to Pool

List of Emergency Operating Areas (EOA)

Area Full Name	Code
Triage	TRI
Kitchen	KIT
Morgue	MOR
Radiology	RAD
Clinic	CLI
Toilet	TOI
Fire Exit	FRE
Utility Complex	UTC
Reception Area	REC
Substation	SUB
Motor Control Center	MCC
District Cooling Plant	DCP
Battery Room	BAT
Uninterruptable Power Supply	UPS



Emergency Management Procedure

Attachment 7 – EOM-ZE0-TP-000007 – Resource Accounting Register Template

The Resource Accounting Register is used to track entity-owned assets during the Emergency Phase.

Date: __/__/__

Department: _____

Dispense Time (using 24 hour format)	Equipment Description	Asset Tag	Received From (Staff Name + Department)	Dispensed To (Staff Name + Department)	Initials of Receiver	Return Time (using 24 hour format)
(e.g. 23:30)	(e.g. 400V Transformer)	(e.g. HAM SP1 1ADT10)				



Emergency Management Procedure

Attachment 8 – EOM-ZE0-TP-000008 – Procurement Summary Report Template

The Procurement Summary Report shall be used during the Emergency Phase for fast track procurement of assets, without the need for a business case. FM staff shall identify the need for an item of equipment during the EI based on a needs assessment. The request is made to the Finance Officer for approval. The entity shall set its own financial authority limits.

Sr. No.	Purchase Order No.	Item/Service	Vendor	Amount (SAR)	Requestor (Name + Position + Department)	Approval (Finance Officer Signature)
1	(e.g. XYZ123)	(e.g. Hot Cupboard)	(e.g. Bentley)			



Emergency Management Procedure

Attachment 9 – EOM-ZE0-TP-000009 – Emergency Job Card Templates

The Job Cards contained herein should be used as reference when preparing entity-specific Job Cards during the Pre-Emergency Phase. One card should be prepared for each role outlined in the Emergency Operations Manual. As a minimum, there shall be a Job Card associated with each member of the EMC.

Incident Commander (IC)

Position Assigned to: _____ Contact Telephone: _____

Emergency Operating Area: _____

Mission

Chief decision maker responsible for organizing and directing the EOC. IC has overall accountability for safety of people and protection of assets during an EI. The IC shall act as EMC Chair.

Immediate Priority

- Assume the role of IC and convene the EMC
- Initiate the Emergency Operations Manual (EOM)
- Read this entire Job Card
- Put on position identification vest
- Appoint all Section Chiefs and distribute:
 - Job Action Sheets for each position
 - Identification vest for each position
 - Forms pertinent to section and positions
- Announce an Emergency Planning Meeting with all Section Chiefs to be held within 5 or 10 minutes – the purpose of which is to ensure that pre-designed Emergency Plans are suitable for the EI which is taking place, and to record any envisaged deviation from the Plans
- Assign a Document Recorder to support in executing the IC task
- Work with CUL to issue internal and external communications
- Receive Facility Damage Survey Report from LSC (if applicable)
 - Evaluate the need for evacuation
 - Determine baseline and targeted service levels
- Obtain personnel numbers from PSC
- Call for Status Reports from each of the Section Chiefs at 4, 8, 24, and 48 hours from time the EI has initiated (adjust projections as necessary)
- Ensure that contact and resource information has been established with outside agencies through the Liaison Officer

Intermediate Priority

- Authorize resources as needed or requested by Section Chiefs
- Arrange routine briefings with Section Chiefs to receive Status Reports and agree a continuation, alteration, or termination of specific Emergency Plans

Extended Responsibility

- Approve media releases submitted Communications Unit Leader and Liaison Officer
- Observe all personnel for signs of stress and inappropriate behavior. Provide for staff rest periods as required