



UNIT-4

Facility Emergency Preparedness Preparedness

Learning Outcomes

By the end of this unit the learner will be able to:

Unit 4

Facility Emergency Preparedness

Effective planning is all about contingencies. In order to ensure you are truly ready for anything, you need to consider the worst possible scenario that could happen and prepare your business and its workforce accordingly. Along with a thorough plan of action in the event that the worst should happen, emergency preparedness empowers employees with the knowledge and confidence to react accordingly. Those working in facilities management are responsible for ensuring everyone knows how emergencies should be responded to, while understanding the nature and severity of the threats the business must contend with.

There are two important areas that should be focused on when carrying out a threat assessment. One of which being the prevention of unwelcome scenarios, along with the mitigation of the severity of the event's impact where it cannot be prevented. The second is maintaining appropriate preparedness for emergencies and crisis response. By carrying out a threat assessment, the organization gains detailed insights as to the potential weaknesses of the business (and the facility) as a whole.

A threat assessment typically begins by listing every potential emergency that could happen at the facility. Examples of which being civil disturbances, electrical outages, floods, fires and so on.

Estimate Probability of Occurrence

Once you have a list of potential emergencies, it's a case of assigning each a probability of appearance. Use a scale of 1 to 10 to determine how likely each of these scenarios is to happen.

Assess the Potential Human Impact

After which, the potential human impact rating can be assigned, using the same scale. 1 having little to no potential human impact, 10 having maximum human impact.

Assess the Potential Property Impact

Use the numerical technique above.

Assess the Potential Business Impact

Use the numerical technique above. In this instance, you are calculating the extent to which business operations would be affected by the emergency in question.

Assess Potential Internal and External Resources

Use the numerical technique above. While doing so, think about any resources or measures currently in

place that could to some extent mitigate the potential consequences.

It's then simply a case of adding these scores together and indicating that totals on the document, in order to see which threats pose the biggest risk to your business. As a rule of thumb, it's said that the top 20% (the most severe threats) should account for around 80% of your total rescue and recovery efforts, in the event of an emergency. The lowest 20% having been identified as less severe, therefore should be allocated significantly fewer resources in the event of an emergency.

All of this information can be used to begin drafting your plan.

Emergency Planning

Contrary to popular belief, emergency planning isn't a one-time-only responsibility. Even if you produce an accurate and comprehensive emergency plan today, it could quickly become outdated. It's important to view emergency planning as continuous, given that threats in an organisational setting are never static. They evolve, they shift and they are joined by new threats - all of which must make it into your emergency plan. A good emergency plan will feature the following components among others:

Mission

This is essentially a clear and concise statement outlining the purpose and objectives of the plan.

Assumptions

An emergency plan is only effective when it is based on valid assumptions or factual information. All assumptions should be carefully considered and tested where possible.

Resources

The presence and availability of all resources should be considered and validated. In the event that facilities management personnel intend to seek support from contractors, an agreement should be reached ahead of time and refreshed/reconfirmed on a regular basis. An inventory of in-house assets must be maintained and regular updated, including equipment, materials, personnel and so on. If the business could benefit from mutual aid agreements, these should also be established and formalised in writing ahead of time. If there are any potential issues regarding the presence or sourcing of essential resources, they should be noted and addressed immediately.

Organization

Where possible, it's a good idea to try to keep most members of the workforce doing what they would normally do at work, even in the event of an emergency situation. Delineation of decision-making authority, responsibilities, and clearly defined relationships is imperative. It is important that you ensure duties and responsibilities are delegated to appropriate individuals, who have the skills, knowledge, experience and general qualities required to conduct themselves and their tasks professionally in a crisis situation.

Decentralisation

Decentralisation effectively means acknowledging the fact that you cannot handle everything on your own. Train and empower subordinates at all levels to help them build confidence in their capabilities.

Simplicity

The more complex an emergency plan is, the more difficult it becomes to make it work. Where possible, the plan should be kept as simple, clear and concise as possible, using direct language with minimal jargon.

Flexibility

Always remember that an emergency plan is simply a framework to work with. There must be a degree of flexibility, due to the unpredictable and dynamic nature of emergency situations.

Coordinated

Every aspect of the emergency plan should fit seamlessly with every *other* aspect. Coordination and synchronisation are essential, in order to ensure everybody knows what they should be doing.

Categorizing Emergencies

Risk Concerns

Everyone who works in facilities management will know that untoward incidents can occur at any time. Something as simple as a blocked drain or leaking pipe is an emergency. If the leak is detected the moment the pipe breaks, the water can be shut off, the mess can be cleaned up with a few towels and the damage can be repaired for next to nothing. However, if the leak isn't detected for several hours or days, it could have a catastrophic impact on the structural integrity of the surrounding walls, floors and so on. Likewise, an exposed electrical wire is easy to deal with when detected early, but could easily burn down an entire building if left unaddressed. Two examples that highlight the importance of an immediate and appropriate response to any emergency - irrespective of how minor it may be at the time.

These examples illustrate the extent to which emergency planning is built primarily on sound risk management. Roughly translated, it is a process of prioritizing the threats that are most likely to manifest, along with those likely to have the most serious consequences if they occur.

Emergency Categories

There are three primary emergency categories: man-made, natural, and technological.

- 1 Man-Made Emergencies.** These include workplace violence, labour strikes, civil disorder, economic degradation, arson, hostage situations, indoor air quality issues, hazardous material

spills (e.g.,

include broken natural gas lines, improper mixing of chemicals, solid, liquid or gas infectious agents which include medical and human waste, refrigerants for HVAC, etc.) and terrorism acts such as: environmental, cyber-terrorism, agro-terrorism, bomb threats, conventional bombing, and nuclear, biological, and chemical attacks.

2. **Natural Emergencies.** These include any emergency resultant from weather or environmental conditions (e.g., drought, fires, flooding, earth-quakes, tornadoes, hurricanes, high winds, snow, ice, hail, extreme heat, lightning, tsunamis, volcanic eruptions, etc.)
3. **Technological Emergencies.** These include telecommunications failures and interruptions (e.g. electrical power loss and malfunction, fuel shortage due to technical interruptions, and heating, ventilation, and air conditioning [HVAC] failures.)

Development of an Emergency Plan

Steps in Development

The most important stage in the development of an emergency plan is acknowledging that a plan is needed in the first place. Every plan is unique, tailored to fit the requirements of the organization. It's important to remember that what matters most is not the length and detail of the plan, but instead the quality of the information therein. Detailed below are a few helpful tips and guidelines for getting started with the development of an emergency plan:

1. Appoint a leader to lead the Emergency Preparedness Team.
2. Organize the team and include representation from various functional parts of the organization. For example: Human Resources, Legal Counsel, Purchasing, Financial Affairs, Information Technology, Public Affairs, Manufacturing, Engineering, Production, Security, Risk Management, Environmental Health and Safety, etc.
3. Develop the purpose (mission) of the team (with everyone's input) and final desired outcome.
4. Outline the areas/functions to be addressed.
5. Establish a timeframe with milestones (schedule).
6. Identify mission essential services, products, and operations.
7. Carry out a comprehensive review of any existing emergency plans of preparedness measures in place, involving personnel at a variety of levels in the process. Think carefully about emergencies that have occurred had previously, what types of emergencies you can expect going forwards and how they could affect the performance of the business. Analyse each type of emergency from a scenario perspective.
8. Conduct a risk assessment (internally or contracted) using the types of emergencies brainstormed previously.
9. Identify available internal resources.
10. Identify needed external resources.

11. Establish financial recommendations and a budget.
12. Identify and review insurance requirements.
13. Modify and improve the plan as needed.

Ultimately, it is the responsibility of the facility manager to ensure that an emergency response plan is in place *and* that all essential personnel have been trained to handle any possible scenario.

Organizational Considerations

The vast majority of emergencies concern infrastructure or facilities, either directly or indirectly. In all instances, evidence has shown that when responding to an emergency, it is important to do whatever is necessary to maintain normal day-to-day operations to whatever extent is possible. Theoretically, the organization should already have in place a strategic plan and all the resources necessary to make this happen. The greater the extent to which day to day operations can continue, the lesser the impact of the emergency. Nevertheless, there should also be sufficient flexibility to allow for the extension and expansion of duties. This could include liaising with local government, community groups, emergency relief agencies, and/or contractors, and providing for emergency shelter. Specialized skills can be contracted; there are companies that specialise in disaster management and emergency recovery.

Concept of Operation

A 'concept of operation' is a statement that details how the emergency will be handled at every stage. This is the document that provides enough information to allow those on duty at the time to take the necessary action. It's therefore important that all key personnel are familiar with and can make full sense of the concept of operation. For example, if something happens outside normal office hours, it may be the security office that receives the initial emergency notification. In which case, it is the security office will be responsible for putting the emergency response plan into action.

1. A meeting should be called at the initial implementation stage by the facilities manager, including all members of the emergency response team. This meeting will be used to summarize the issues, provide guidance, set priorities, make resources available, and begin the coordinating process to respond to the emergency.
2. The emergency response process will then be implemented by designated facility management personnel. This may include such tasks as conducting damage assessment surveys of property; documenting injuries and fatalities; detailing the various steps and processes taken during the emergency; coordinating for equipment, supplies, and material; executing contracts; assisting with facility evacuation; and supporting any mass care requirements.
3. The facilities manager will be expected to assess and determine the nature and severity of the emergency, in order to pass the information directly to the organization's command operations

centre. The damage assessment team may then carry out an initial assessment of key facilities and utility systems, after which the information will be transferred to the facilities manager, who will subsequently liaise with the command operations centre.

Command, Control, and Communications

There are various factors that will determine the quality and effectiveness of an organization's response to an emergency. One of which is consistency - a demonstration of consistent support and commitment to the organization's emergency response plan. In the event of an emergency, the transition from day-to-day activities to emergency operations should be seamless.

With the vast majority of emergency preparedness plans, property protection and general health and safety are the main priorities. Unless there is decisive control, direction and planning, even the smallest scenario could descend into chaos. Detailed below are several essential facilities management functions, which should be prioritised when developing an emergency preparedness plan:

Command

Ultimately, the responsibility for any major task should come down to one individual. As should responsibility in the event of an emergency be assigned to relevant personnel. The term 'command' indicates that the individual or individuals in question have influence and authority over others. They delegate duties and responsibilities to subordinates appropriately, effectively creating a chain of command.

Chain Of Command

The facilities manager will usually sit at the very top of the chain of command, passing duties and responsibilities to subordinates, who may then do likewise to subordinates under their own supervision. Depending on the nature of the emergency, the facility manager may maintain command throughout, or until a local government executive arrives on the scene and assumes authority.

Establish Authority

A corporate policy statement outlining the organization's requirement for an emergency preparedness plan should be issued by the organization. This statement must include key details such as the general policy, purpose and scope, procedures, establishment of the emergency operating centre, emergency preparedness committee members, responsibilities, and who takes command and control.

Control

Security managers in conjunction with facilities management personnel will usually take control in an emergency situation. Once again, this is due to the way in which health, safety and security in general are the utmost priorities in *all* emergencies. Specific duties may be delegated by senior security and facilities management personnel.

Succession Responsibility

A clear chain of succession must be defined in advance, in order to cope with any potential absence of responsible management personnel. If one or more appointed commanders or controllers is unavailable for any reason, there must be another designated individual (or individuals) to replace them. Each individual within the chain of succession should understand their responsibilities, should they be called upon to take command.

Command Operations Centre

In the event that the emergency affects the entire organisation, or is particularly large in scale, a command operations centre (or emergency operations centre) may be established. This is essentially an off-site facility where each major department (e.g., human resources, legal counsel, information technology, risk management, financial affairs, public affairs, security, production management, and facility management) will post representatives who are able to ensure so the business continues running.

Ideally, the command operations centre will have:

- Space for several workstations to receive and coordinate various activities concerning casualty information, damage assessment, and business continuity
- Reliable communications with support agencies and internally within FM
- A computer system to enter information into a central database
- Facility “as built” drawings (in CADD form) and in hard cop
- Contact lists for emergency personnel, vendors, and contractors
- List of personnel having disabilities
- Catalogues and other resources
- Standard Operating Procedures (SOPs)
- A conference room with map board and grease boards to conduct periodic situation meetings; and facility intelligence information concerning each facility

Facility Emergency Operations Centre (FEOC)

An organization's facilities management department should also have its own functional emergency operations centre, from which all key duties can be coordinated.

Functions of the Facility Emergency Operations Centre

- Receive and process all facilities emergency related information.
- Maintain the log of all FEOC emergency information.
- Coordinate all utility service information.
- Maintain communication with the Command Operating Centre.
- Coordinate small contract work.
- Develop work estimates.
- Conduct planning and scheduling of project work
- Track all work and enter into the computer maintenance management system (CMMS) database.
- Maintain the emergency work budget and accounting systems.
- Collect information concerning key buildings and post that information to existing drawings.
- Maintain contact information for employees, vendors and suppliers, contractors, and consultants, including home telephone numbers, pager numbers, after hours contact numbers, mail and e-mail addresses.
- Maintain an emergency information log and maintain organization utility and energy account data files, including energy contracts, account numbers, telephone and e-mail contact information, and names of key points of contact. This data should also be stored at an offsite protected location.

Source: Facility Manager's Emergency Preparedness Handbook, 2003.

Facility Manager Responsibilities

The facilities manager holds a unique position within the organization, which enables them to take confident and decisive control of resource coordination, implementation of evacuation plans, provision of shelter and overseeing facilities management duties in the event of an emergency. The most important responsibilities of the facility manager are as follows:

- Demonstrate competence and professionalism at all times.
- Prioritise health, safety and property protection above everything else.
- Coordinate closely with local support agencies: police, fire, other emergency service departments, planning department, and public works. Initiate annual meetings or luncheons where information and plans can be exchanged and discussed.

- Coordinate with private sector organizations such as utility companies,
- Coordinate with the local FEMA office.
- Know the organization's emergency plan inside and out.
- Make training a foundation of the emergency plan.
- Become familiar with pertinent codes and regulations.
- Identify critical products, services, and operations that must be available for use in emergency or disaster situations.
- Identify existing internal resources and capabilities that could be used in emergency or disaster situations.
- Identify and lock in, if possible, external resources that would be of assistance during an emergency or disaster.
- Designate an energy contracts manager and backup.
- Develop notification procedures of team members.
- Coordinate information and prepare for update briefings.
- Gather supplies/materials required for use.
- Ensure damage assessment training is scheduled and conducted
- Finally, demonstrate confidence and lead by example

Source: Facility Manager's Emergency Preparedness Handbook, 2003

Emergency and Security Manager Responsibilities

When an emergency situation occurs, one of the biggest and most immediate challenges is securing the facility. This responsibility will usually fall with the security manager (or department), but it may be difficult or impossible for them to get the job done single-handedly. Facility managers will therefore be expected to support the physical security of the premises in an emergency situation.

Communications

21st century society has become dependent on continuous information exchange. The chief executive of your organisation will determine who is authorised to communicate externally in the wake of emergency.

Internal Communications

Facility managers must play a role in keeping internal stakeholders informed as to what's happening and how the incident is likely to affect them. This may include employees, tenants, students - anyone who is to some extent dependent on the facility and its operations. Online updates via you company's website, blog, news feed or social media accounts can be the best way of communicating important information to a broad audience in a hurry. If the information is confidential, it may be necessary to restrict it to internal intranets, direct telephone calls/SMS messaging and so on.

External Communications

It will also be necessary to provide updates for contractors, suppliers, vendors, external stakeholders and local government offices. All such information must only be provided upon the express authorisation of the CEO.

News Media Communications

Within minutes of a major accident or incident occurring, you can guarantee the local and even national media will turn up on your doorstep. It's therefore important to remember that facility management personnel are *not* typically authorized to speak on behalf of the organization. This will usually be the responsibility of the PR and/or marketing department. The importance of being careful with every word you say in the wake of an accident or incident cannot be overstated.

Emergency Preparation and Training

Steps of Emergency Preparation

Again, it is important to view emergency planning as an ongoing process. It is only possible to be prepared for any and every eventuality when you have identified and considered all possible scenarios. After which, it's a case of following a series of logical steps in sequence, resulting in the creation of a unique emergency preparedness plan for your organization.

Determine your Requirements

Of course, you'll first need to determine the requirements of your organisation, based on a series of informed assumptions. Consider all possible threats that may occur, along with conditions that must exist for an emergency plan to be implemented. Other important elements to be considered/included at this stage of the planning process are as follows:

- 1. Human element.** Internal organizational employees, visitors, vendors, and contractors;
- 2. Facility element.** The physical plant and buildingsystems;
- 3. Regulatory element.** Regulatory agencies who enforce codes and laws, and respond to emergencies;
- 4. Business Continuity element.** The continuation of the organization's mission following an emergency.

An Effective Emergency Plan Is...

SIMPLE - hard to read plans with too much small print are not effective. **PARTICIPATIVE** - individuals as well as managers have to be involved. **BELIEVABLE** - confidence comes from knowledge and experience; therefore, the plan must be publicized and exercised.

Evaluate Requirements

Evaluating requirements means consulting with personnel at various levels throughout the organisation, along with external agencies and advisors. This is the only realistic way of ensuring all potential outcomes and scenarios have been considered, after which the information is reviewed, analysed and recorded. Recommendations and conclusions can then be reached regarding courses of action to be taken in the event of an emergency - all discussed and outlined in conjunction with senior leadership personnel.

Prepare the Plan

- 1. Before. ...Preparation Phase.** The extent to which you plan for any eventuality will determine how effectively your organization is able to cope with it. This means carefully considering every aspect of the preparation process, reviewing current plans and procedures where present. Analyse possibilities for mitigation by considering pertinent codes and regulations; required products, services, resources, contracts and operations; critical products and services; internal and external resources and capabilities; and temporary housing support (if necessary). Take a careful look at your organisation's current insurance coverage and ensure it is adequate. Focus on techniques for detecting threats and preventing them from occurring. Ensure your organization has an emergency response training program in place, which should cover topics such as specific life safety equipment, emergency preparedness requirements, responsibilities, and procedures. Don't wait for an emergency to occur to see if the plan works - test it out with drills on a periodic basis.
- 2. During. ...Response Phase.** With sufficient planning and preparation, the response phase can be simplified significantly. This is where the activation of the emergency preparedness plan takes place, along with complete recording/documenting and everything that happens and the actions taken by those involved. It is at this point that it is imperative for everyone to understand and be capable of handling their responsibilities, seeking external support (as previously specified) where necessary. The response phase also includes the implementation of a public relations communication plan.
- 3. After. ...Recovery Phase.** The recovery phase begins the moment the emergency is brought

under control. Documentation and communication are particularly important during this stage, wherein the priority will be to restore both the physical performance of the organization and its reputation.

Analyse and Modify the Plan

There is technically a fourth stage to the process - sometimes referred to as the “debugging” stage. This is where the emergency plan and everything in the prior three phases is carefully analysed, in order to identify strengths, weaknesses and areas for improvement.

Implement the Plan

When the emergency plan has received the approval and authorisation of senior personnel, it can be finalised and published. This is the moment at which the plan is effectively formalised and implemented, so you will need to ensure you are completely satisfied with each and every aspect of it. You may be responsible for determining which internal and external parties should receive a copy of the plan. In any case, it’s worth holding onto a fair few additional copies, so that you have them available to hand out at any time necessary. Always make sure that each copy of the plan features an official date stamp, which will then be used to indicate the dates and times of any subsequent modifications or additions.

Evacuation

An emergency plan must contain detailed information on how personnel, employees, tenants, customers and patrons, visitors, persons with disabilities, and patients (where applicable) would be evacuated in the event of an emergency. Details of which should include designated assembly areas in safe locations, traffic control, crowd management, emergency exit routes and so on. It should also detail the extent to which the facility manager will oversee the evacuation. The fact that those being evacuated may be rushing or panicking at the time must also be factored in.

If the facility requires any special equipment or resources to facilitate safe and effective evacuation, this must also be specified in the plan. All such equipment and resources must be sourced in advance and tested on a regular basis to ensure their operational status.

Leased Facilities

Irrespective of whether you own or lease your business premises, it is still important to have a complete emergency preparedness plan in place. The owner of the building will have their own emergency plan established and their respective responsibilities identified, but it is still up to you to safeguard the welfare of your building, its occupants and its resources. The creation of an emergency preparedness plan when leasing a facility *must* be coordinated directly with the owner of the building.

Training

An emergency response plan will only ever be as effective as the personnel implementing and enforcing it allow it to be. At all levels throughout the business, regular training and coaching on responding to emergencies and coping with crisis situations should be considered mandatory. The more extensive your focus on training, the more positive the response to any given scenario will be. Training should be carried out and refreshed on a regular basis for all personnel - not only those designated with higher-level responsibilities in the emergency preparedness plan.