Unit 2 Preparing for the Emergency

Learning Outcomes

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

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Unit 2

Facility Emergency Preparedness

A good plan is thorough, carefully prepared, exercised, and drilled. It addresses the various types of potential emergencies, and identifies where assistance can be obtained. It also evokes comfort and confidence that the facility organization is competent in its abilities to react accordingly. As a facility manager, it is incumbent on you to educate yourself and train your staff on how to respond to emergencies and understand the impacts and threats.

The threat assessment should be prepared for and focus on two broad areas. First, prevention and, failing that, mitigating the effects of an emergency event. Second, maintaining emergency preparedness and crisis response. Threat assessment provides the leadership of the organization with a tool to assess the weaknesses of the organization, and more specifically, the facility.

List in separate columns, on a spreadsheet, all potential emergencies that might occur at the facility. Examples would be: fire, flood, electrical outage, civil disturbance, etc.

Estimate Probability of Occurrence

For each potential emergency, assign a probability of occurrence on the basis of a number from 1 to 10; 1 being the least likely to occur and 10 being the most likelytooccur.

Assess the Potential Human Impact

Assign a human impact rating on the basis of a number from 1 to 10. A 1 would have no potential impact and 10 would have a great deal of human impact.

Assess the Potential Property Impact

Use the numerical technique above.

Assess the Potential Business Impact

Use the numerical technique above. The higher the probability the greater the impact on the business. With the Hurricane Katrina disaster many smaller businesses never recovered.

Assess Potential Internal and External Resources

Use the numerical technique, above. Consider any resource which would mitigate the impacts.

Add the Assigned Numerical Scores for Each Column and Place the Totals on the Spread Sheet.To use these numbers, we suggest that you consider 20% of the largest numerical column total to represent 80 percent of the maximum total required for rescue and recovery. Draft your plan accordingly. Finally, the

remaining 20% of the numerical column to be used should be considered as having minimal need for rescue and recovery. Using this approach should provide maximum use of available resources and optimum facility protection.

Emergency Planning

Emergency planning is a continuous process. It involves a detailed and systematic examination of all aspects of a contemplated emergency. Effective plans provide a methodology to respond to any emergency. They are based on well-thought-out assumptions and are not static. They are modified, refined, and updated as a result of new information or as situations change. The essential characteristics of a plan include the following.

Mission

The objective of all planning is to accomplish the mission. The mission should be a clear, concise statement.

Assumptions

All plans must be based on factual information or valid assumptions. Any assumption that is made must be as accurate as possible and kept to a minimum.

Resources

All resources must be considered and their availability validated. If the facility manager intends to obtain support from a contractor, there should be an agreement in writing which is reconfirmed periodically. Community resources must also be coordinated regularly. In-house assets must be inventoried and kept updated; this includes personnel, material, and equipment. Mutual aid agreements and partnering should be implemented wherever possible. For example, colleges and universities can have mutual aid agreements between themselves to share residential housing wherever possible. Utility companies have agreements to share electric power repair teams to restore electrical power during power outages. In every case, these agreements should be in writing with specific responsibilities designated and cost arrangements agreed to beforehand.

Organization

Delineation of decision-making authority, responsibilities, and clearly defined relationships is imperative. It is best to keep employees doing what they normally do in non-emergency situations in order to lessen the potential for confusion and redundancy. Contract, as mentioned above, for specialized skills but be as reasonably sure as you can that those individuals will be available in an emergency because often they perform critical tasks. If this is a municipal or county plan, query the local National Guard for specialized services.

Decentralization

Facility managers cannot be expected to do everything themselves; therefore, decentralize to the maximum extent possible. Train your subordinates so they have confidence in their abilities.

Simplicity

The plan should be kept as simple as possible in order to eliminate confusion and misunderstanding. Use simple, direct language that is easily understood and is not ambiguous.

Flexibility

The plan is just that, a plan. This means there has to be the element of flexibility which allows for adjustment and corrections based on the site conditions at the time.

Coordinated

All elements of the plan must fit together, like a puzzle. This means that all aspects of the plan have been synchronized so that everyone knows his or her role and also what others are doing.

Categorizing Emergencies

Risk Concerns

Anybody in the FM business knows that emergencies can happen at any time. An overflowing toilet is an emergency. If detected immediately as it begins to overflow, the damage can be minimized to only a few gallons of water on the floor which can then be absorbed by a few towels. That same overflowing toilet can become a disaster if it continues to overflow. Undetected for many hours, it can result in several thousand gallons of water seeping its way to floors below, damaging property, and possibly even impacting the mission of the organization. Likewise, a smoldering or defective wire caught early is a relatively easy problem to correct. However, a small flame can readily ignite surrounding materials resulting in an explosion or fire that could destroy a facility. Quick and correct response to an immediate emergency can mean the difference between a minor and major emergency.

The above examples mean that most of our emergency planning will be based on risk management, prioritizing what is most likely to happen and, if it happens, what will be the impact and cost to the organization.

Emergency Categories

Emergencies can essentially be categorized into: man-made, natural, and technological.

1. Man-made Emergencies. These include workplace violence, labor 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

Realizing you need a plan or that an existing plan needs to be revised or updated is a good beginning. Plans should be developed to fit the organization. It is not the number of pages in the plan that is important. It is the quality of what is in those pages. A good plan is not measured by quantity, but by the quality of the information it contains. There are some basic strategies which can be used in the beginning to get started. Below are some initial steps to take.

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 beaddressed.
5. Establish a timeframe with milestones (schedule).
6. Identify mission essential services, products, andoperations.
7. Conduct reviews of existing plans, interviews of "experts" including outside agencies and organizations (including community), and hold brainstorming sessions. These sessions should focus on the type of emergencies which occurred in the past, the type of emergencies expected, and technological and equipment emergencies that could impact the organization's mission. Analyze 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 abudget.
12. Identify and review insurancerequirements.
13. Modify plan asneeded.

Emergency preparedness plans establish the organizational structure in order to respond to any type of emergency or disaster situation. Organizational structure is designed to facilitate command and control. The facility manager has the responsibility to ensure that his organization has an emergency response plan and employees are trained to respond to specific emergency situations.

Organizational Considerations

Most emergencies relate directly or indirectly to facilities or infrastructure. Consequently, facilities organizations are uniquely organized, staffed, and equipped for handling emergencies. Experience has proven that it is best to keep emergency response operations as close to normal day-to-day operations as possible. After all, facility organizations have the communications tools and management systems already in place, and have contractors with whom they interface daily, available to respond. The organization structure should be flexible enough to allow for expansion and extension of duties. Expansion of duties 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 devoted to disaster/emergencyrecovery.

Concept of Operation

The concept of operation is a statement of how an emergency is handled from start to finish. It is stated in sufficient detail to ensure appropriate action. After normal work hours, the security office will be the first to receive notification of an emergency. This is due to several reasons: officers patrol buildings and can physically detect a problem, alarm systems (fire and environmental) terminate at the security office, or individuals detecting an emergency situation call the security office. Once notified the security office initiates the Emergency Response Plan.

1. At the implementation of the emergency preparedness plan, the facility manager should convene a meeting of the entire facilities emergency response team. At this meeting he should summarize the issues, provide guidance, set priorities, make resources available, and begin the coordinating process to respond to theemergency.

2. Facility management personnel will implement the emergency response process by: 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.

The facility manager will ascertain the type and extent of the emergency and inform the organization's Command Operations Center. Depending on the situation the facility manager would activate the Damage Assessment Team and direct the team to initiate a preliminary assessment of key facilities and utility systems. This information will be quickly collected, analyzed, and passed to the facility manager who will inform the organization's Command Operations Center

Command, Control, and Communications

Response during an emergency is dependent on several factors. One key factor is consistency. Organization policies and procedures will provide the consistency to support the organization's overall emergency plan. There should be seamless transition from the normal day-to-day activity to the emergency response. In some large organizations there are separate positions for a facility manager, emergency manager, and security manager. In smaller organizations, these roles are filled by the same person, who is usually the facility manager.

Emergency preparedness is a function of planning wherein life safety and property protection are the main goals. Without planning, direction, and control there would be chaos. Below are important facility management functions that must be considered and carried out when developing the organization's Emergency Preparedness Plan.

Command

The word command signifies authority and influence over others. Whoever is in command is responsible for what the organization does or fails to do. The leader discharges his responsibilities through an established protocol and delegates appropriate authority to subordinates. When this is done, there is a chain established linking each level of the organization. This is known as chain of command.

Chain Of Command

When an emergency involves the facility or physical infrastructure of an organization, then the facility manager is normally the individual with onsite responsibility for life safety and property protection (either by virtue of the position or by designation from the emergency manager). This is normally true until a local government executive (i.e., AHJ, or the authority having jurisdiction) arrives on the scene and assumes the authority.

Establish Authority

The organization should issue a corporate policy statement establishing the need for the organization's Emergency Preparedness Plan. This policy statement should include: the general policy, purpose and scope, procedures, establishment of the emergency operating center, emergency preparedness committee members, responsibilities, and command and control.

Control

The responsibility for control at the scene of an emergency rests with the security manager, with support provided by facilities management. Within a hospital environment the same responsibility exists (i.e., the security manager has the responsibility for initial control of emergency scenes). Generally, the authority having jurisdiction (AHJ) takes control upon arriving at the site.

Succession Responsibility

In the absence of responsible top management, there exists a need to define a successive line of responsibility for decision making. There must be a well-defined chain of succession. The facility manager must clearly inform the organization's Command Operations Center of the line of succession within his own organization.

Command Operations Center

Generally, the organization will have a command center or emergency operations center if the emergency is large enough and impacts the entire organization. This is a central location where various departments (e.g., human resources, legal counsel, information technology, risk management, financial affairs, public affairs, security, production management, and facility management) will station representatives who will staff the center on a 24-hour basis. In large facility organizations, the facility department should have its own emergency operations center where all related activities can be coordinated.

Ideally, the command operations center will have:

- Space for several work stations 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 centraldatabase
- Facility "as built" drawings (in CADD form) and in hard cop
- Contact lists for emergency personnel, vendors, andcontractors
- List of personnel having disabilities
- Catalogs and other resources
- Standard Operating Procedures (SOPs)
- A conference room with map board and grease boardsto conduct periodic situation meetings; and facility intelligence information concerning each facility

Facility Emergency Operations Center (FEOC)

The facility department should have its own emergency operations center where all facility related activities can be coordinated.

Functions of the FEOC

- Receive and process all facilities emergency relatedinformation.
- Maintain the log of all FEOC emergencyinformation.
- Coordinate all utility service information.
- Maintain communication with the Command Operating Center.
- Coordinate small contractwork.
- Develop work estimates.
- Conduct planning and scheduling of projectwork
- 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 existingdrawings.
- 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 facility manager, if not the emergency manager, because of his position within an organization, has the responsibility for coordinating resources, implementing evacuation plans (when necessary), providing shelter (when necessary), and directing the facilities portion of emergency response. All of the above is summarized in the organization's emergency preparednessplan.

Following are the minimum responsibilities of the facility manager:

- Demonstrate competence!
- Always keep safety and property protection as the number one and twoobjectives.
- 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 anddiscussed.
- 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 in everything you do!

Further Reading:

- ✓ ***Boothman,***