

Emergency Planning for University Health Care Facilities

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Emergency Planning

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No one doubts the effectiveness of a well thought out and well-rehearsed emergency or disaster plan for a health care facility. Different agencies, including the Joint Commission and the Occupational Safety and Health Administration require that facilities develop and practice a comprehensive emergency response plan.

What follows in this paper is a description of a “modular” response plan. That is a plan that is categorized with specific information. That information can then be accessed, as needed depending on what the incident is that the facilities managers and employees must respond to at a given time. This modular concept is broken into three components: Executive Summary, Scenario Descriptions, and Response Team Descriptions.

There appears to be a number of *failures* that seem to be repetitive in large-scale emergency situations. These re-appearing “challenges” are:

- Failure to pre-plan
- Lack of Organized Command
- Failure to identify hazards
- Lack of adequate or proper communications
- Failure to implement resources in a managed way
- Failure to prioritize response actions
- Failure to collect and organize scene data
- Improper or poor use of personnel
- Failure to use non-emergency resources in the best way

In preparation for any emergency incident or *disaster*, managers must work to take these negative operational challenges and turn them into an effective action plan. By turning these challenges into positive statements, you begin to develop a guideline or list of objectives that appears to offer incident managers specific steps to providing effective multiple casualty scene management.

Probability for Disaster. The first step in developing a modular response plan that will be beneficial to the commander and planning branch during an incident is the

promulgation of a prioritized list and categories of probable emergency incidents. The planning team is made up of a number of people with expertise and experience related to the community or a specific piece of the community. The diverse experience and background of the community is invaluable in this piece of the planning stage.

The planning team needs to develop a list of possible and probable emergency occurrences that would affect the community or the facility. This is a brainstorming exercise, and at this time none of the suggested scenarios should be discarded. Any and all ideas should be listed on the *probabilities and capabilities matrix*.

Probabilities and Capabilities Matrix							
Type of Emergency	Probability	Human Impact	Property Impact	Business Impact	Resources (Int/Ext)	Comments	Total Points

This matrix will become a blueprint for cutting the scenario list into basic categories and prioritizing those incidents and categories into response action plans.

Each incident that has been listed through the brainstorming exercise is reviewed using this chart. They are each rated on the five columns for the probability of occurrence, the human impact, property impact, business impact, and available resources to mitigate the situation.

Probability is defined as the rate of likelihood of each emergency’s occurrence. It is a subjective consideration based on the planning group’s consensus, taking into account the historical occurrence of the facility and the information known on the potential situation. On a scale of one to five, with one as the lowest probability of occurrence, a numerical value is given for this column.

Human Impact is the potential for death or serious injury to occur during the emergency. *Property Impact* is the potential property losses and damages. What are the costs to repair or replace? Again, both of these columns are based on a scale of one to five with one being the lower end and five being the more severe end of the scale.

When considering the *Business Impact*, the planning team needs to consider how the emergency would effect the conducting of normal business. Thought must be given to how situations would affect employees or patrons being able to reach their destination, fines and penalties assessed the organization because of the incident, and interruption of supplies or production. A situation that would not have an adverse affect on business would have a lower rating, while an event that disrupted business would have a rating higher on the 1 to 5 scale.

The *Resource* column assesses the facility’s resources and ability to respond to the emergency. Are there enough of the needed resources to respond to the incident? Or are there nearby resources available to help mitigate the incident? If these resources and

plans are available and in place (including plans and agreements with external agencies, organizations, and resources), the rating would be lower than if the resources were not currently available. This also helps to identify where further development is needed in the support services to manage the incident effectively. What plans, agreements, resources, etc. are needed to make this a successful undertaking?

This matrix helps the planning team prioritize some events. Events that have garnered a high numerical factor are those that should be reviewed first. Those are the events that may have high probability for occurring, may cause the most harm if they occur, that the facility or community has little or no capabilities to respond to the event, or a combination of these factors. These events are the starting point for developing the scenario description and action planning.

This exercise in scenario based emergency planning helps develop a list of probabilities in regards to events that may affect the community and the emergency response organizations and agencies. This exercise also starts to develop a list of needs for responding to that event. Where are the community's weaknesses? Where are the community's strengths? What must the community do to prepare to respond to the event effectively? The next step is to begin developing action plans based on what has been identified as the highest priority within the community.

Executive Summary. Many times what is referred to as the executive summary in this paper is the main focus of emergency plans. The executive summary contains necessary information and documentation about the facility or community, potential for disaster response, and some specific response organizational management.

The executive summary should spell out details about the emergency response of the given organization; the plan's purpose, authorities and responsibilities of key personnel, types and definitions of emergencies, guidance on emergency management, and the organization's response overview to name a few.

The **purpose** section of the emergency response plan is intended to outline a system for the organization to respond to and meet emergencies. One thing to remember is that an emergency response, or disaster plan, is not normally to react to the day-to-day occurrences that may strike the organization. This type of document is for those emergencies that are of sufficient magnitude to cause significant disruption to the functioning of the organization.

It is recommended that tasks and assignments and facility operation during an declared emergency event closely mimic those that are accustomed during normal business. To change someone's assignment, or the habitual use of a facility, during a declared event will cause further operational problems. By keeping individual assignments close to those of normal operations, personnel will have a higher comfort level when operating under an emergency plan – and also have a higher level of competency, than if their personal obligations are significantly changed during the event.

For example, if trades workers like electricians, plumbers, and carpenters normally report for their shift at the Physical Plant of the facility, then during an emergency recall, whenever possible, they should report to the same location.

The purpose section of the executive summary further explains the possibility of an emergency event of such a magnitude inflicting the community or the facility. An example of this section in a plan states:

This Emergency Response plan is predicated on a realistic approach to the problems likely to be encountered during a major emergency or disaster. Hence, the following assumptions are made and should be used as general guidelines in such an event:

1. An emergency or disaster may occur at any time of the day or night, weekend, or holiday, with little or no warning.
2. The succession of events in an emergency or disaster is not predictable; therefore, published operational plans, such as this manual, should serve only as a guide and a checklist, and may require field modifications in order to meet the requirements of the emergency.
3. A major emergency or disaster may be declared if the information indicates that such conditions are developing or probable.
4. Community-wide disasters may affect surrounding towns. County emergency services may not be available to assist, particularly for the first day or two. The worse the disaster, the more the facility will be left on its own. Therefore, the facility must be prepared to be totally self sufficient if the need arises.

The **authority and responsibility** section of the executive summary must spell out who is in charge and specific lines of authority. The time to quarrel over who is in charge and who has the right or authority to declare a disaster or event is during the planning process and not after the disaster has struck. This section should spell out how an emergency is declared and the process for the initial immobilization of needed resources.

The authorities and responsibilities section is also where the roles and responsibilities of the Disaster Management Team is described. This team guides the facility or community during a declared event. The specific make-up of this management team is further discussed in the response overview section of the executive summary.

The **types and definitions of emergencies** section of the executive summary should describe what levels of emergencies are probably within the facility or community and how the emergency plan fits into these categories. A simple way to categorize events is into MINOR, MAJOR, and DISASTER.

A minor emergency is defined as a local emergency with limited impact. Events such as a small fire, small hazardous materials incident, or a limited power outage could fit into this category because under most circumstances they would not affect the overall functioning of the community's operation. Neither the disaster plan nor disaster management team would normally be activated during these types of emergency events.

A major event would be seen as a serious emergency that completely disrupts one or more operations within the community or facility. Situations such as a major fire, civil disturbance, or a widespread power outage would all fit into the "major" category. This type of event would probably require outside emergency services as well as major efforts

from within the organizational support services to assist in response and mitigation. Activation of the emergency plan and the disaster planning team during this level of situational response would be appropriate.

A disaster would be a community-wide event that seriously impairs or halts the daily operations of the facility. Natural disasters like earthquakes or tornadoes, and major severe weather events like large-scale winter storms and hurricanes would fit into this category. These are significantly more dangerous events because of the threat to human life and the possibility of heavy physical damage. This type of event would require outside emergency assistance but this assistance would not always be available during the event. Again, activation of the emergency plan and the disaster planning team during this level of situational response would be appropriate to deal with personnel, facility and policy decisions.

The executive summary should discuss emergency management during declared events. Emergency services throughout the country operate under what is referred to as the “Incident Command System.” This system of emergency personnel and resource management is seen as the best way to promote effective operations and safety for responders during an emergency.

Incident Command System. Under S.A.R.A. Title III, the Federal government has also recognized the value of the incident command system and requires that any response to hazardous materials incidents be organized through an incident management system. Beginning in January 2001, the Joint Commission for the Accreditation of Health Care Organizations (JCAHCO) is also requiring that healthcare facilities’ emergency plans are operated under an incident command system. If the operations of such responses are required to be within the confines of an incident management system, then the planning process should also address this need.

The Incident Command System (ICS) is a modular emergency management system designed for all hazards and levels of emergency response. This system creates a combination of facilities, equipment, personnel, procedures, and communication operating within a standardized organizational structure. Use of the incident command system facilitates an organization’s ability to communicate and coordinate response actions with other jurisdictions. In addition, the system facilitates coordination with external emergency response agencies.

Basic components of the Incident Command System include:

- *Common Terminology* applied to organization elements, position titles, facility designations and resources.
- *Generic Positions* whereby multiple individuals are trained for each emergency response role and follow prepared action checklists.
- *Modular Organization* based on activating only those organizational elements required to meet current objectives.
- *Integrated Communications* so that information systems operate smoothly among all response agencies involved.

- *Unified Command Structure* so organizational elements are linked to form a single overall structure with appropriate span-of-control limits.
- *Manageable Span of Control* whereby supervisory demand is held in the one-to-three to one-to-seven range
- *Comprehensive Resource Management* for coordinating and inventorying resources for field responses.
- *Consolidated Action Plans* that contain strategy to meet objectives at both the field response and Emergency Operations Center levels.

The *Response Overview* section of the executive summary describes specific coordination of various facilities resources and other emergency response plans. Within any community or facility, there will be a number of plans that are available for emergency response. As each resource is activated into the facility plan, these outside resources and their plans must be dove-tailed into the main emergency response plan. Again, this type of coordination should be well thought out during the planning process so any problems can be worked out well before the emergency event occurs.

This section of the executive summary should also hold documentation of the Disaster Management Team that is discussed in the roles and responsibilities section. This team would be composed of the community or facility managers that would help oversee the disaster operations. Personnel managers, facilities managers, technical staff, safety professionals, and the like are important people to have listed in the disaster management team. Beyond their being listed as members of the team, these representatives from throughout the responding community should be versed in the plan, familiar with the capabilities of their specific areas and personnel, and how the response to the given situation should occur. Their role during a declared event is to evaluate information from various sources during the progress of the event and to advise the “incident commander” on appropriate actions requiring his or her decision.

In many, if not most, emergency plans this is where the planning ends. The plan has set up specific parameters of emergency management and the key players. By ending the planning process at this point much is being left up to the judgement, knowledge, and background of the disaster management team.

By continuing further into *Scenario Descriptions* and *Response Descriptions*, a more comprehensive plan and database of facility information and resources can give this Disaster Management Team more tools to efficiently make decisions and effectively manage the situation.

Scenario Based Descriptions. After the list of scenarios and categories have been developed and prioritized, the next step is developing the individual (or categorized) action plans. For purpose of example, an academic facility’s Regional Power Outage Scenario will be used as a sample throughout this article.

The **scenario action plan** is divided into four sections. These are general description, description of the response, the response organization, and any other considerations.

The *General Description* is an overview paragraph that describes the emergency event. It should identify the primary cause, the community of facility systems affected, and any other descriptive information that helps fully define the event.

The next section of the scenario is the *Description of the Response*. This provides a general description of the typical actions to be taken in controlling, mitigating, and resolving the emergency event. These are baseline actions, which will likely require modification to provide the best response with the available resources and circumstances at hand during the actual event.

In the description of the event, problem areas and systems impacted have been identified. With a broad based planning committee these problem areas can then be addressed as the best possible means for alleviating those problems.

This description of response becomes a list of tactical objectives to best correct the situation. This section of the document becomes the action plan, those tasks that need to be accomplished in response to the incident.

By developing that action item list, the objectives needed to correct the situation, the planning process has then helped to develop the *Response Organization*. By identifying the hierarchical organization for the different situations, the planning organization can alleviate most supervisory and “power” related problems that may arise between people during field assignments

This type of designated organizational structure is part of the incident command system and scene management. Incident command concept is a management tool that allows for the centralized organization and coordination of a given incident. There is a need for some one to be in charge and to coordinate the incident. The roles and responsibilities needed in the management and operations of the incident belong to the incident commander.

An Incident Command structure at any incident helps manage the personnel and resources. Incident command follows basic management principles allowing the scene to be broken down either functionally (by task) or geographically (by area). These smaller pieces of the incident afford scene managers the opportunity to more effectively deal with the situation while providing for adequate supervision and leadership to the resources.

The list of objectives developed in the response description then become functional assignments in the organizational structure. These appear under the operations section of the response structure. By utilizing ICS structure that is used throughout the emergency services field, the operations can easily mesh with the knowledge, background, and organizational structures of the emergency resources being brought in from the outside.

The Incident Command System provides for responder safety. By breaking down the incident scene into functional and geographic portions, commanders can keep the *Span of Control* at a manageable limit. The theory behind the span of control says that one person can effectively supervise three to seven resources. As the incident commander breaks apart the incident into smaller pieces, and assigns responsibilities into those pieces, he or she needs to keep the span of control in mind.

Probably the biggest advantage to using an incident management system is that it works and makes sense.

The roles of the incident commander and the command staff include:

- Assess Priorities
- Determine Strategic Goals
- Develop an Incident Action Plan
- Assign Tactical Objectives
- Develop Appropriate Organizational Structure
- Manage Incident Resources
- Coordinate Overall Emergency Activities
- Ensure Responder Safety
- Coordinate Activities of Outside Agencies
- Authorize Release of Information to the Media

Many situations encountered in emergency scene management will require one commander. This singular command philosophy places all the responsibility of scene management on the shoulders of one individual. The academic facility example plans for this type of incident management. The planning process also recognizes that with other emergency responses, the roles and responsibilities of different response agencies become blurred. In these multi-jurisdictional and multi-agency situations it is more efficient to offer a *Unified Command* structure as incident commander.

With a unified command structure, command personnel from the different jurisdictions and agencies work together to fulfill the goals and objectives of the action plan. There is still one action plan and one focus on the incident; but that incident is managed by a group of leaders that know the roles of each of their services. This unified approach also helps keep the different response agencies informed and provides for the best utilization of all the responding services.

By looking over the standard “command chart” we can see that a number of “teams” have been identified through the planning *prior* to the incident happening. These response teams came from the response objectives developed in the description of response. This leads us to the next section of the Modular Response Plan, the Response Team Descriptions.

Response Team Descriptions. The planning process has identified specific objectives that need to be carried out during the management of a response to an emergency event. For these objectives to become further valuable to the emergency management staff each objective must be assigned to a response team. That is the third leg of the Modular Planning Process.

The planning team needs to identify the resources that have the knowledge, skills, training, and capabilities of performing and accomplishing each of these objectives. If these “response teams” can be identified during the planning process, then the disaster

management team and the incident commander has an outline on what resources are needed and how to mobilize each of these teams during an event.

Included in these individual team descriptions are:

- *Team purpose and responsibilities:* An overview paragraph that describes the roles, functions and responsibilities of the team.
- *Team activation procedure:* Detailed and specific documentation on how the team is activated, notified and made fully functional.
- *Team Capabilities:* A descriptive paragraph that identifies the specific, individual functions of the team, and the specific output that can be expected from the team members as a whole.
- *Team work location:* The specific place [building(s) and room(s)], at which the team members will assemble and work for the duration of the emergency response event.
- *Team make-up (People and positions):* Actual people and positions that are assigned on the team that are needed to perform the team's functions and to meet its expected purpose.
- *Needed Equipment:* The tools, vehicles, and machines used by the team during their response activities.
- *Supplies:* Materials consumed by the team during their emergency response activities.
- *Necessary Training:* The minimum training required by each team member to perform and support the team's overall function.
- *Other Considerations:* Miscellaneous and unique information that can potentially impact the team or that needs to be considered in the team's operation.

This concept gives the emergency management team the information needed on what resources are capable of fulfilling the identified objectives. It also gives them the procedures for activating the response team(s) as well.

Beyond this, however, this response team planning exercise also identifies the shortfalls in the plan. Is the response team internal or needed from outside agencies? Is there any specific training that team members must undergo before they are capable of fulfilling these objectives? What are the resources, equipment, and supplies necessary for the response team to be successful?

Not only has this planning exercise identified objectives, current resources available to pursue the objectives, and the logistical needs of the response team – this exercise would also identify if there is no specific group of people who could currently tackle the needed objectives. This way of looking at emergency response needs not only strengthens what is available; it shows the emergency management community what shortcomings are evident within the system. Then that itself becomes a goal of training and development in preparation to respond to those incident objectives where organization capabilities are lacking.

With all three sections of the emergency plan in effect, the (1) Executive Summary, (2) Scenario Descriptions, and (3) Response Team Descriptions a manageable

tool is also developed to help the people responsible for managing the emergency situation. This managing of the situation can be prior to the event and also as the event unfolds. The incident commander of an event can then pull out the executive summary for general management guidance for the event. The scenario description offers specific objectives or an action plan, and the team descriptions give direction for the availability and capabilities of response organizations or teams to answer the action plan needs.

Training Helps the Emergency Plan Make Sense. The goal of the planning process is to develop a useable plan: a plan that can be easily implemented instead of one that is ignored and collects dust on a shelf. Once the plan is complete there is a need for training at all levels that encompasses all assignments and resources listed in the plan.

Early on in the planning process it was recognized that there is a need for training of the planning participants. If the plan utilizes an Incident Command System, then the planning team should be familiar with the ICS system. If the plan is for multiple casualty incident response, relocating or housing mass groups of people, or whatever the *specialty*, the planning committee needs a basic understanding of those operations. The members of the committee are there because of their broad representation of the general community. They bring specialized knowledge to the table. It also becomes committee representatives' responsibility to share that knowledge with the others so there is a general understanding of the concerns that are brought to the table from all directions. This realization is a form of training and education that works to promote a plan that looks at all aspects of the community response.

Beyond that initial training of the committee, the finalized plan needs training on a continuing basis. Those who belong to "teams" need to be briefed and trained on their role within a declared event. The Planning, Logistical Support, and Financial Resources also have to be aware of their place within the plan and how they can best serve the needs of the community or facility during an emergency event.

Many facilities and communities have relied on the knowledge and experience of its managers in the past to achieve positive results during emergencies. Those people who have developed this specialized knowledge of the facility and its workings over the past several decades will not always be available. Training in regards to emergency management must work to develop leaders within the structure who understand plan and how to implement the response to obtain the desired goals and objectives.

If a number of people are trained for similar roles within the response plan structure, the plan is not left to depend on one or two people for success. There needs to be preparation and role cross training to ensure that there will always be competent and well prepared leaders to implement the plan and mobilize the response teams for action. There must also be competent response personnel to effectively handle tactical assignments during the event. These leaders may not be the *first string choices* – but through training they will still be prepared.

The modular approach to emergency planning helps identify these roles and these assignments. Through the planning process roles and responsibilities as well as team functions and assignments have been identified. Each faction of the plan must review and ready themselves and their respective teams based on these roles and assignments.

The response plan has begun to identify needed resources through the team descriptions and incident tactical objectives. If there are resources, either internal to the facility or community or external, that are identified as integral to the efficient operations, then there is also a need to utilize these resources, agencies, and personnel in training. The time to call on a local businessman, company or nearby response organization for the first time is not the day of the emergency. Part of the planning and training process is to involve these contacts early on so they become aware of their role within the plan.

Emergency plans and the subsequent training should mimic day-to-day operations and real life response as much as possible. The team approach works towards this end. The teams that are developed through the planning process are based on the normal job assignments of the personnel involved. What are their strengths and competencies? Where do they normally work? What equipment are those involved familiar with through their normal work practices? If the plan begins to change the things that are common place for the individuals, it becomes a plan that is much more difficult to remain clear in the responders' minds.

By allowing the facilities and assignments to remain close to what is normally handled, the plan is easier to grasp for the line personnel. Their roles remain clear to them if they are familiar with those roles that they are used to accomplishing.

No emergency plan will be successful during an actual event unless the plan has been involved in continuous training with those people it will effect. Training on the emergency plan operations and procedures should be in several different sessions. These include (1) Orientation and Education Sessions, (2) Table-Top Exercises, (3) Walk-through Drills, and (4) Full Functional Drills

Orientation Drills. All employees of the facility should be instructed on all components of the emergency action plan. This is done in the beginning with introductory modules. When developing the original planning team, it was necessary to train people in basic theory of Incident Command, Emergency Operations, and the like. It also becomes equally important that personnel effected by the plan are also familiar with these facets of the plan as well. It is recommend that all levels and areas of service should attend these general education sessions. Participants at these training sessions are made aware of the plan and how it will affect their disaster response. They should be advised that some of them would be invited back to participate in a table top exercise. Ultimately all personnel will be involved when the facility (or community) tests the new plan in a future disaster exercise or when an actual emergency occurs.

Table-Top Exercises. The Table Top Exercise is a paper drill intended to demonstrate the working and communication relationships of functions found within the emergency organizational plan. This style of exercise is intended primarily for the administrators, managers and personnel who could conceivably be placed into a leadership position upon activation of the disaster plan.

Walk-through and Full-functional drills. The emergency response plan may be tested when the facility conducts a general disaster exercise. These drills involve the activation and simulated activity of all sections of the Incident Command System and the operational response of the organization. The difference between the Walk-through and Full-functional drill is that a Walk-through exercise is usually one of the first the facility has

participated in under the plan. A simulated event has occurred and the facility begins to respond to the incident under the emergency plan's guidelines. During a walk-through drill there would be spotters to guide decisions and actions during the training exercise.

During the functional drill, the spotters are used more for critique than guidance. The functional drill allows the facility's managers on their own to guide the event and the facility's response as if it were actually occurring. At the conclusion of both the walk-through exercise and the functional drill, as with all practical exercises, the value for the participants comes in discussion and critique of the drill.

These periodic training opportunities are intended to keep all responders committed to emergency preparedness and proficient in emergency operating procedures. The expertise of top management in regards the emergency plan should be a priority. The leadership team, composed of managers who could potentially fill the of roles of Incident Commander, Administrative officers, and area "chiefs" must be always ready and always aware of how the disaster plan works; as well as the responsibilities associated with the most critical job positions.



The key to a successful operation: success in personnel safety, success in public safety, and success in a positive outcome of the incident is planning and preparation. This planning must begin with each of us. Planning must include all other agencies and emergency management people that will be effected by any emergency that inflicts our community and its populace.

This planning and preparation is the responsibility of the facility, college, and community leaders and managers. Those people that are charged with providing emergency services to the community are also responsible in working towards a plan of protection when the unthinkable happens. There is a need to form a genuine cooperative between agencies and community leaders to ensure that the community action plan is well thought out, well practiced, and ready to do the job.

For more information on emergency planning and integrating the Incident Command System into your plan and disaster operations, contact Responder Publications at (813) 880-8230 or www.ResponderMagazine.com/ and ask for information on Robert Laford's text "Planning and Practice -- A Guide for Emergency Services' Planning and Operations"