EMERGENCY Preparedness & DISASTER Response for Contractors

No One Is Immune

2005 was a year not soon forgotten. Like most Americans, I found myself feeling overwhelmed by the devastation wreaked by Hurricanes Katrina and Rita. Like many, I contributed to charities and sought opportunities to assist those in need.

However, until I traveled to New Orleans in March of 2006, I could not appreciate the scale of the disaster, the complexity of the response operations, or the stark reality of the recovery efforts.

As a risk management professional, I found many valuable lessons in the Katrina and Rita disasters. Perhaps none is more valuable than the need to have a written, comprehensive, and tested emergency preparedness plan.

Although a good business practice and a requirement under state/federal occupational safety and health regulations, in reality, most contractors do not have such a plan.

Another valuable, but alarming, lesson is the attitude of invincibility adopted by most Americans. This lulls people into believing that a disaster will not occur in their geographic area. For example, you may not be immediately affected by the:

- More frequent and intense hurricane cycles in the Atlantic.¹
- Continuing development of coastal properties.²
- Shifting population concentrations to areas prone to naturally occurring disasters, such as Florida and northern and southern California.³


These hazards threaten the viability of all contractors.

Unfortunately, the need for disaster planning is greater than ever.

BY CALVIN E. BEYER
However, given the expansion of technology in the workplace and the interdependencies of business operations, all regions of the country are vulnerable to business disruption.

For example, Hurricane Katrina devastated several oil refineries, reducing domestic oil supplies by about 8% of total U.S. production. This reduction helped drive up the price of oil, which drove up the price of oil-based construction materials. Similar global interdependencies have led to the significant material shortages and price escalations described in “CFMA’s Financial Survey Hot Topic” in this issue.

So, it’s clear that many different events can disrupt a contractor’s business operations. However, contractors and their CFMs who properly plan and prepare for threats improve the odds for a successful response and recovery.

Types of Emergencies & Disasters

Although often used interchangeably, there are technical differences between the terms emergency and disaster. The major distinction? Emergencies are local in nature and response, while disasters have a broader geographic scale and complexity, or require a regional/federal response. The distinction is most important when state/federal disaster declarations fund recovery and remediation efforts.

Generally, emergencies and disasters are divided into two categories: naturally-occurring and man-made. Naturally-occurring events usually refer to severe weather. Examples include floods, storms, hurricanes, earthquakes, and landslides.

In contrast, man-made events refer to technological failures or malicious incidents. Power outages and computer-related attacks, such as malware, hacking, and viruses are prevalent examples. In addition, contractors are specifically prone to man-made jobsite emergencies, such as material spills, fires, and explosions.

Although awareness of the potential for man-made disasters is growing, people tend to overemphasize the frequency of naturally-occurring events. Therefore, I encourage contractors and their CFMs to look beyond the obvious threat of hurricanes in coastal states, earthquakes in California, and tornadoes in the Midwest and Southwest — and to recognize that, in 2005, there were 248 man-made disasters world-wide compared to 149 naturally occurring disasters.

The Impact of Emergencies & Disasters

The Human & Financial Impact

A simple working definition of risk management involves the conservation of an organization’s human and financial assets. The major adverse consequences from emergencies and disasters involve workers and finances.

On the human side, there is the risk of personal injuries and/or fatalities. There can be short-term workforce absenteeism leading to service disruptions or outright attrition of workers due to fear, poor morale, or lack of confidence in the company’s financial stability. On the financial side, the effects include:

- Lost financial data
- Additional expenses due to relocation of operations and replacement of equipment
- Cash flow crisis, or even bankruptcy, due to customers’ inability to pay
- Loss of bonding capacity
- Breach of contract, assessed liquidated damages, or default

To help survive a disaster, your company must develop, implement, test, and periodically update a comprehensive emergency preparedness plan.

The Solemn Upside

While emergencies and disasters can disrupt contractor operations, they can also present opportunities. After all, contractors are frequently among the first responders to major disasters and emergencies.

Emergency remediation and recovery projects are unexpected sources of work with unique risks. Slow reimbursements can lead to a cash flow crisis. Suppliers may not be able to obtain and deliver materials. Project owners may not be able to pay on schedule, and there may be a shortage of subs to perform the work.

The sudden influx of business, and the potential for increased volume and higher paper margins, is attractive — yet, these positives must be offset by the risks of cost escalation and the threat of slow, partial, or disputed reimbursement by government agencies.

Benefits of Emergency Preparedness Plans

Contractors that develop, implement, test, and periodically update their emergency preparedness plans reap many benefits. Most notably, they protect the lives of employees and the welfare of their families. A comprehensive emergency preparedness plan also:

- Reduces business disruptions
- Maintains sustainable cash flows
Preserves customer bases
Continues supply of services and products
Maintains confidence of investors or creditors
Mitigates legal liability
Maximizes insurance recovery and reduces the total cost of risk

Business disruption may result from unintended causes; however, business resumption and continuity requires intentional planning and preparedness.

The Nuts & Bolts of Emergency Planning
Not only do you need an emergency preparedness plan, you also need one tailored to fit your business operations. Testing and periodically updating this plan is also essential to emergency preparedness and business continuity.

The objective is to identify your company’s critical business functions and determine which employees, systems, information, processes, equipment, and materials are critical to restore and resume business operations. So, begin by listing all critical business functions to determine a primary and backup process for restoration in the event of a disruption. Another best practice: Ensure that all mission critical electronic data is automatically backed-up daily at an off-site, secured location.

Also, it’s important to evaluate your company’s vulnerability to a disruption in supply chain logistics. Ask your vendors and suppliers about their emergency preparedness plans, and develop relationships with alternative vendors and suppliers in case your primary ones experience a disruption.

The Five Steps
There are several starting points to build an effective emergency preparedness plan. Here are five steps to help you evaluate your company’s emergency preparedness and create policies to ensure business continuity after a disaster.

1. Conduct a Needs Assessment
If your company does not have a formal written emergency preparedness plan, or if you don’t know if your company is sufficiently prepared for emergencies, conduct a needs assessment. A comprehensive needs assessment includes these questions:
- Does the company have a formal, written emergency preparedness plan?
- Is this plan up-to-date?
- Has the company thoroughly tested the plan on all levels?
- Does the plan include the following critical elements?
  - Vulnerability Assessment – Identifies and measures “soft spots” in a company’s systems and prioritizes planning action steps.
  - Business Impact Analysis – Quantifies the effect of a disaster on the company’s day-to-day operations.
  - Evacuation Procedures – Identifies routes to safety, establishes a meeting point for evacuees, and explains how to determine if anyone is missing.
  - Business Continuity Plan – Details the means to restore critical business operations and resume operations, including data backup, archiving, and data recovery.
  - Crisis Management Plan – Outlines how to coordinate communication protocols with the media and other external organizations.

A needs assessment will reveal vulnerabilities and opportunities for improvement. However, before you create your game plan, you need to select your team.

2. Establish a Planning Team
A multi-disciplinary approach effectively builds an emergency preparedness plan. The composition of this team or task force will vary depending on the size, geographical spread, and nature of operations. However, the core of your planning team should include:
- Chief Executive Officer or Chief Operating Officer
- Chief Financial Officer/Controller
- Construction Operations
- Safety & Health Director
- Risk Manager or General Legal Counsel
- Chief Information Officer/IT Director

Invite representatives from your insurance agency/broker and carrier to participate as ad hoc members. These individuals can provide resources and examples of industry best practices.

Once the core team has met and determined an overall strategy, additional company representatives from HR, Facility Maintenance, Fleet-Equipment/Transportation, and Business Development can provide additional support and resources to more fully develop, implement, test, and update your plan.

3. Perform a Vulnerability Assessment
There are four parts in a vulnerability assessment:
1) Identify the top 10 most likely emergencies and disasters facing your company.

2) Assess the probability of each top 10 event. Rate each scenario as a high, medium, or low frequency event.

3) Assess the severity of each top 10 event. Again, a high, medium, or low rating scale is simple and useful.

4) Reorder the initial top 10 list by probability and severity.

Once you complete this list, you’ll have a clear idea of the biggest dangers to your company’s continuity after a disaster. You can then focus on mitigating the impact of high frequency and high severity events.

4. Analyze the Business Impact of Disruptions

This is an optional step that can have a major impact on organizational decision-making. However, this step is probably necessary for public companies with an outside board of directors, or large, complex organizations.

The business impact analysis calculates the economic impact of direct and indirect costs from different types and variable durations of unplanned disruptions. This impact is frequently expressed as the cost-per-down-day.

5. Take Preventive Measures

Contractors who allocate more emergency resources than their competitors will have an edge when disaster strikes. So, it is useful to understand the scope of a disaster and consider how much to invest in preparedness, prevention, and mitigation.

It is said that an ounce of prevention is worth a pound of cure. This is especially true in the realm of emergency preparedness. Some examples of prevention measures include:

- Identify staff capabilities to respond to first aid and medical emergencies or for bilingual translation.
- Cross-train staff in key competencies.
- Maintain contact with employees and essential business partners through an emergency Web site or toll-free phone number.
- Consider the cost-benefit of satellite phone service in the event that conventional telephone and cell service is disrupted.
- Ensure that all critical materials or supplies are not stockpiled in the same area and that major pieces of equipment are garaged in different areas.
- Identify backup suppliers.
- Maintain redundant systems, such as IT data and financial archives.
- Develop lists of key business partners, including your company’s banker, CPA, insurance and surety contacts, suppliers, vendors, and key customers.

For information on additional factors to consider, review the “Snip It/Clip It” Emergency Preparedness Questionnaire on page 38.

Elements of Emergency Preparedness Plans

There is no single acceptable format for an emergency preparedness plan. This is not a one-size-fits-all proposition. The format and length will vary based on areas of vulnerability and the company’s size and operations. However, all plans should contain these key elements:

- Purpose and policy statement
- Authority, roles, and responsibilities
- Probable emergencies
- Vulnerability assessment
- Emergency operations center staffing and procedures
- Communications protocols
- Business continuity protocols
- Crisis communication and media relations
- Facility site maps and evacuation procedures
- Internal and external resource lists

Project-Specific Emergency Preparedness Plans

The importance of project-specific (jobsite) emergency preparedness plans cannot be overstated. For many contractors, the need for emergency response and evacuation at a jobsite is more probable than for a widespread company disaster.

Pre-planning with local public safety and emergency response agencies can decrease confusion when a jobsite incident occurs. A quick response due to proper pre-planning and preparedness can expedite medical treatment and save lives.

Emergency medical professionals call the first 60 minutes after a traumatic injury the “golden hour” and each minute saved through proper pre-planning can influence the survival of a trauma victim.
Because jobsite conditions constantly change, it is vitally important that critical site considerations (like emergency access and staging areas for ambulances) are checked at least daily. Here are some additional considerations for jobsite emergency preparedness plans:

- Train employees in first aid and CPR; also, teach them to distinguish when 911 or other emergency services are warranted.
- Establish written procedures for suspending/securing crane operations, steel and pre-cast erection, and other work in high winds or electrical storms. This should include air horns or other audible signals to notify workers of impending storms.
- Institute proper procedures for utility location and damage prevention for underground and overhead utility construction operations.
- Provide personal flotation devices and water lifesaving equipment for employees working over or near water.
- Pre-plan with emergency agencies re: the response, rescue equipment, and procedures to be used for excavation cave-ins, confined spaces, high voltage contact, and scaffolding or crane boom collapses.
- Develop aerial rescue procedures to retrieve injured or stranded workers from elevated work platforms or from lift equipment. For example, how does your company plan to rescue an employee dangling from a height in his fall protection harness and lanyard?
- Maintain appropriate staging areas for medical transport helicopters responding to a mass-casualty jobsite event.

Also, take special precautions when large concentrations of employees work onsite, especially if there are multiple work crews in different areas of the construction site. Special precautions are even more important if work crews are split between inside and outside operations.

To help improve personnel accountability, require employees to wear badges, and log their assigned working locations. With this information, a supervisor can quickly track employees and determine if someone is missing during an emergency evacuation. In a mass casualty event, this facilitates a more focused rescue effort, and is often required in pharmaceutical, military-industrial, and petrochemical construction operations.

Conclusion

The recent rash of natural disasters has taught many valuable lessons. Unfortunately, the need for preparedness is greater than ever before, given the increasing frequency and worsening intensity of weather-related storms and the escalation of technological threats.

No geographic area is immune or protected from the threat of emergencies and disasters. But, prepared contractors can recover from potentially crippling disasters, earn more work as a result of their preparation, and contribute to their communities in times of crisis.

Endnotes:
2. Ibid.

Don't Miss the Snip It/Clip It
“Emergency Preparedness Questionnaire”
by Lawrence C. True

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An Emergency Preparedness Questionnaire for Contractors

BY LAURENCE C. TRUE

The destruction of the World Trade Center in 2001 changed many things, including our perspective on disaster planning. We now understand that much of what we take for granted (such as phone service, Internet connections, and a place to live and work) could disappear quite suddenly.

And, everyone is vulnerable. How well your company is prepared with a written emergency preparedness plan could determine whether your company survives at all. Below are just a few of the many questions every contractor must answer.

Business Continuity

1) What type of external/internal vulnerabilities could impact your company? For example, is your home office and job-site security adequate to prevent vandalism and theft?
2) Does your company have a written plan stored offsite to protect or evacuate employees, irreplaceable equipment, and such vital records and documents as insurance policies, deeds, vehicle titles, and financial information?
3) How long would it take to replace your company’s furnishings and equipment?
4) How would your company function if 20, 30, 50, or 100 employees were absent?
5) How would your company survive if it couldn’t operate for a significant period of time?
6) How long could your company function without access to its home office? If uninhabitable, could your company maintain its workforce in an alternative location and still access crucial files?

Insurance Coverage

1) How much insurance does your company need? What can your company cover and how much will your insurance pick up in the event of a loss?
2) Does your insurance policy pay for temporary repairs or temporary workspace?
3) Does your insurance policy cover each item’s replacement value?
4) Will the insurance policy pay for an upgrade in order to get equipment promptly?
5) Does your insurance policy reimburse relocation costs?

IT Considerations

1) Are there fire sprinklers located in your computer room? If so, could they malfunction and destroy your network?
2) Has an expert determined how difficult (or easy) it would be for an outsider to break into your IT system electronically? What about an employee bent on destruction?
3) Is your company protected if a disaster destroyed your entire data center?
4) Does your IT staff regularly test the integrity of backup tapes? Are tapes safely stored away from your computers?
5) Can your backup tapes restore the data onto a new server equipped with a newer operating system?
6) Is business critical software safely stored? Are the license numbers kept offsite?
7) Can your IT vendors help get the data center back online? Or, are they apt to suffer as much from a regional disaster as your company?
8) Is there a plan to get new computers and backup equipment if the region’s infrastructure is destroyed?
9) Is computer/network documentation available offsite? Is it detailed enough that a reasonably competent person could follow the directions and get the system up and running?
10) A company with fairly new equipment, current versions of most software, and offsite backups may be able to resume operations in an alternate location within two to three days. Is that acceptable?

Communications Continuity

1) Is critical contact information stored offsite?
2) If your company loses its computers and phone systems, is there a plan for emergency communication with employees, vendors, project owners?
3) If your home office must relocate, how long would it take to get phone service at the alternate location?

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