Whether it’s a power outage, subcontractor default, or tornado, your company should evaluate the likely frequency, severity, and direct (and indirect) consequences of business disruptions so that it’s better prepared to maintain normal business operations.
In the six years since Hurricanes Katrina, Wilma, and Rita, the level of emergency preparedness and disaster response across the U.S. has improved. State and federal government agencies, businesses, non-profit disaster relief organizations, and even professional and industry trade associations (like CFMA) have instituted improved policies and protocols to better prepare for large-scale emergencies.

The Origin & Evolution of CFMA’s Emergency Management Planning Course

Over the past four years, we have facilitated CFMA’s four-hour continuing education course on “Emergency Management Planning” (EMP). This course was developed following the 2005 hurricane trifecta and has evolved from a basic framework of emergency preparedness and disaster response to an intermediate strategy of crisis risk management and corporate reputation preservation to an ultimate advanced philosophy and vision we call “Zero Disruptions.”

We have heard countless stories from course attendees of how useful the tips, sample lessons learned, and best practices have been, and how CFMA’s EMP course has better prepared them for both avoidable and unavoidable emergencies. For a real-life example on the usefulness of the EMP course, read the Real-Life Examples sidebar.

The Birth of Zero Disruptions

Despite signs of improving levels of emergency preparedness, there is still complacency regarding the risks of business interruption from both operational causes and emergency situations. Over the years, we’ve tried to help contractors embrace a new competitive mindset and business strategy.

During CFMA’s 2010 Annual Conference & Exhibition, the EMP group exercise on business continuity focused on the benefits of zero IT system outages in order to minimize avoidable business delays and disruptions. It was at this point in the exercise that an attendee asked us why the program wasn’t called Zero Disruptions. The group agreed that a concerted focus on Zero Disruptions would benefit companies of all sizes.

What Is Zero Disruptions?

The premise of Zero Disruptions is simple: By reducing (or eliminating) the number of disruptions, contractors can shift their focus from responding to and managing business disruptions to instituting business improvement processes in order to prevent (or minimize) disruptions from occurring.

The challenge: Shifting management’s thinking and actions away from emergency preparedness and disaster response toward the prevention and mitigation of all business disruptions, regardless of size or consequence.

Zero Disruptions focuses on strategies that help businesses shift from crisis management to crisis prevention, and to what Jim Lukaszewski, public relations crisis communication expert, terms “crisis readiness.” This is akin to the shift in focus from firefighting to fire prevention, and the results can be just as dramatic.

While emergency response capabilities are still required, companies that are better prepared should experience fewer and less severe disruptions over time, which we describe in CFMA’s EMP course as “sleep insurance.” See the Real-Life Examples sidebar for more on the first Zero Disruptions seminar.

Zero Disruptions = Enterprise Risk Management = Strategic Risk Management

“The Impact of Crisis Management on Corporate Reputation” in the January/February 2010 issue provides an overview of enterprise risk management (ERM) and strategic risk management. Zero Disruptions is a method of implementing ERM; it’s an overarching vision and philosophy, a strategy, and a set of tactics that embody integrated preventive management.

Zero Disruptions is a relevant model for all companies in the construction industry and scalable for companies of all sizes.
Examples of Real Business Disruptions
Experienced by contractors within the past 12 months.
Reported by attendees before, during, and after “Emergency Management Planning” at CFMA’s 2011 Annual Conference & Exhibition on May 15, 2011

<table>
<thead>
<tr>
<th>NATURAL DISASTER or FORTUITOUS RISK</th>
<th>UTILITY OUTAGE</th>
<th>IT/COMPUTER PROBLEM</th>
<th>SUPPLY CHAIN INTERRUPTION</th>
<th>OPERATIONAL RISK</th>
<th>FINANCIAL PROBLEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evacuation and clean-up after Hawaiian tsunami increased unallocated overhead with major project delays</td>
<td>10-inch water main break caused flooding of corporate office</td>
<td>Hard drive crashed and disrupted payroll system</td>
<td>Software company bankruptcy resulted in the loss of 20 years of company financial data and vital records</td>
<td>Crane collapse caused injury to a worker and resulted in project delay</td>
<td>Subcontractor default led to increased cost to complete, schedule delay, and negative profit</td>
</tr>
<tr>
<td>Corporate office affected after tornado touched down</td>
<td>Sewer main back-up caused flooding and extended clean-up</td>
<td>Hacker attack on IT system resulted in loss of data</td>
<td>Asphalt emulsion shortage and price increase resulted in delays, increased operating expenses, and decreased profitability</td>
<td>Vandalism to office trailer and equipment resulted in loss of data</td>
<td>Employee embezzlement resulted in unrecovered stolen assets</td>
</tr>
<tr>
<td>Blizzard and ice storm caused office closings and project schedule delays</td>
<td>Vehicle accident downed a utility pole, which caused an extended electrical power outage that forced an office to close</td>
<td>Lightning strike damaged computer network; lost data from “hard shutdown” due to interrupted power supply or lack of emergency generator¹</td>
<td>Homeland Security inspections of imported equipment shipment delayed delivery from port of entry</td>
<td>Train derailment and hazardous materials spill required evacuation of corporate office</td>
<td>Cash flow crisis from slow-paying customers resulted in missed payments to subcontractors, material suppliers, and vendors</td>
</tr>
<tr>
<td>River flooding delayed off-loading of barges with ready-mix materials</td>
<td>Power grid disruption caused rolling brownouts and blackouts</td>
<td>Theft of company computer servers, laptop computers, and flash drives resulted in loss of critical data</td>
<td>Sub-tier subcontractor default led to schedule delay by subcontractor, which caused project delays and increased costs</td>
<td>Multiple injury incident at jobsite, including a fatality, caused project delay and low employee morale</td>
<td>Fines issued by OSHA for violation of safety standards reduced project profit and damaged company’s reputation</td>
</tr>
<tr>
<td>Discovery of archeological ruins delayed excavating</td>
<td>Telephone service disruption at asphalt plant dispatch center caused delivery delays and customer service problems for three days</td>
<td>Malware on field computers led to slowed and failed data transfer, including missed bid submission</td>
<td>Steel fabrication plant shutdown affected delivery of rebar to project site</td>
<td>Partial concrete deck, bracing, falsework, and scaffolding collapse caused worker injury and schedule delay</td>
<td>Breach of contract with liquidated damages reduced project profits and damaged long-term relationship between owner and contractor</td>
</tr>
<tr>
<td>Migration of threatened species delayed jobsite mobilization</td>
<td>Construction equipment struck a gas line and caused natural gas to leak, requiring a corporate office evacuation</td>
<td>Power outage resulted in missing bid submission deadline</td>
<td>Alabama tornado damage on tracks caused delay in suppliers’ train shipments to ready-mix contractor</td>
<td>Differing site conditions (soil subsidence) delayed project completion</td>
<td>Fines, court fees, and remediation costs for jobsite violation of environmental regulations reduced project profit and created adverse publicity</td>
</tr>
</tbody>
</table>

¹ Hard drive: Data loss from “hard shutdown” due to interrupted power supply or lack of emergency generator.
At CFMA’s 2011 Annual Conference & Exhibition, we facilitated an EMP session with approximately 45 attendees. We asked them to list real-life examples of disruptions that occurred in their companies or within their supply chains during the past 12 months. We suggested they take an enterprise approach and consider disruptions in the following categories:

- Natural Disaster or Fortuitous Risk
- Utility Outage
- IT/Computer Problem
- Supply Chain Interruption
- Operational Risk
- Financial Problem

There was a total of 36 unique disruptions that were captured and classified, which are presented in the chart on the previous page. This chart shows the wide array and frequency of disruptions in the construction industry. Many attendees shared similar examples of disruptions, including at least eight examples of project defaults from GCs, subcontractors, or material or equipment suppliers.

**Zero Disruptions: A Source of Competitive Advantage**

The benefit of adopting a Zero Disruptions vision and philosophy can be a competitive advantage. Companies that embrace Zero Disruptions can increase efficiency and production output, minimize injuries and rework, decrease overhead expenses, and reduce the total cost of risk.

For example, an increasing area of concern is the need for contractors to evaluate their insurance programs and risk management processes and practices. The exhibit on the next page highlights three major steps to help contractors evaluate the adequacy of their existing insurance coverage and policy limits for the operations they are engaged in (or will be in the future).

We also believe it’s imperative for all contractors to consider the risks of insufficient business interruption coverage vs. the benefits of adequate business interruption coverage.

**Business Interruption: What’s at Risk?**

All too often, we hear stories of unfortunate, yet avoidable, occurrences of how contractors’ operations were disrupted. The consequences and resulting severity vary; however, the scenarios unfold very similarly.

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### Real-Life Examples

#### 2010 Nashville Flood

In the days that followed the severe flooding in Nashville in May 2010, Brian called CFMA member Robert Davidson of Davidson, Golden & Lundy, P.C. in Brentwood, TN, to find out how he could return the favors granted to CFMA’s New Orleans Chapter after Hurricane Katrina. Robert told Brian that his firm and clients were doing well, due in large part to the quality of work CFMA produced and shared on emergency preparedness.

This included the “Emergency/Disaster Management Planning Lessons Learned – Hurricane Katrina” document that was assembled at the conclusion of the Louisiana Joint Chapter Conference in March 2006. This list consisted of more than 60 tips and best practices on how to prepare for emergencies and disasters. Many of these techniques are considered to be no- or low-cost suggestions and have been incorporated into CFMA’s EMP course.

Robert also shared that because of these materials, many of the companies his firm serves had already initiated emergency preparedness and business continuity plans. This is a testament to the value of CFMA’s educational resources.

#### Implementing Zero Disruptions: Opryland’s Grand Reopening

Nashville’s historic landmark resort, Opryland, sustained extensive damage after the flooding occurred. The property hosted a grand reopening celebration in November 2010.

Through a friend from the Professional Convention Management Association (PCMA), Dina O’Rourke, CFMA’s Director, Event Services, learned that Gaylord Entertainment (owner/operator of Opryland) was seeking an educational course on emergency preparedness at the reopening celebration. Dina shared CFMA’s experience and resources on this topic with her friend, who then asked if we would present on the subject.

We agreed to do the presentation and decided to introduce our concept of Zero Disruptions. From this experience, we learned that Zero Disruptions effectively focuses on real-life examples and not hypothetical events. We also gained insight on how scalable Zero Disruptions is – regardless of a company’s size, type, and scope. And, the concepts of vulnerability assessment, emergency preparedness, and disaster response are suitable for all industries.
It’s important to recognize that everyday incidents affect a contractor’s performance. However, in most cases, advance planning (a “Plan B” or “Plan C”) could have prevented, countered, or significantly minimized the disruption.

**Business Disruption Observations**

Below are the 10 most common observations and insights associated with recurring disruptions that turn ordinary business operations from “business as usual” into “business as unusual.”

1) Disruptions are a distraction to a company’s vision, strategy, and execution. Disruptions drain valuable human and financial resources, and cause a loss of focus on the company’s critical success factors.

2) All interruptions are disruptions; some disruptions are emergencies, some are crises, some are disasters, and some are catastrophes. Because frequency breeds severity, the importance of prevention through risk reduction and avoidance must be the focus.

3) Regardless of size, scale, or severity, disruptions have adverse consequences and unanticipated costs. The uninsured, indirect costs frequently exceed the direct, insured costs.

4) All disruptions affect a company’s profitability, vitality, viability, or even survivability in a worst-case scenario.

5) There are more than financial risks and operational headaches associated with having to temporarily relocate or permanently shutter a damaged location; there is lingering reputation risk from such a disruption.

6) Many companies overemphasize preparedness for natural disasters and underprepare for the threats of disruptions from man-made or technological causes.

7) Utility outages and power brownouts, loss of telephone systems, and IT disruptions are among the most common of the “business as usual” disruptions that affect business operations. Companies must consider instituting privacy and security controls for laptop computers, smart phones, and retrievable storage devices (flash/thumb drives). Reports of breaches of confidential customer or employee data frequently go viral on the Internet and can severely affect a company’s reputation.

8) Few contractors know the cost of a “down day,” a “down week,” or a “down month.” It’s crucial for business owners and strategic managers (like CFMs) to understand the importance of considering accelerated recovery time objectives, and even more so to focus on incident avoidance and prevention objectives.

9) The proverbial statement that “lightning does not strike twice” has been challenged and even disproven by contractors. In one case, a contractor’s bidding operations were impacted by two “business as usual” disruptions one week apart that could have been countered if a basic emergency preparedness and disaster response protocol was in place. (See the last page for three scenarios.)
10) It’s not sufficient to only backup and archive data off-site. Contractors must also conduct drills and consider the possibility of system incompatibilities of software, hardware, operating systems, or changing vendors.

We’ve heard numerous stories of companies that thought there was adequate backup of key records at secure off-site locations, but could not access these records due to such incompatibilities when faced with business restoration following a disruption.

Immediate Next Steps

Has your company conducted a vulnerability assessment, completed scenario planning, conducted drills or exercises of its system backups, or revised its written emergency preparedness and response procedures/protocols?

If not, then here are a few simple, immediate next steps to consider implementing to help your company be better prepared for both avoidable and unavoidable business disruptions.

1) Undertake an insurance and risk management review (see exhibit on opposite page).

2) Institute a planning team:
   • Make it a team sport and a contact sport
   • An interdisciplinary approach should yield better results

3) Identify vulnerabilities:
   • Assess the potential for disruptions
   • Determine the expected frequency
   • Quantify the likely and worst-case scenarios

4) Inventory existing internal resources and determine available external resources.

5) Assign functional champions for implementing process improvements and monitoring progress.

6) Develop, disseminate, and drill on the new plan.

Conclusion

Disruptions do not have to be full-fledged disasters to be serious distractions to business operations. The focus of this article was to highlight the critical importance for all companies to consider their vulnerability to business disruptions.

In addition, our goal was to encourage companies of all sizes to thoughtfully evaluate the likely frequency, severity, and direct and indirect consequences (including the ripple effect of interdependencies) of such disruptions.

Implementing a Zero Disruptions vision and strategy is not a program or initiative; it's a journey that requires a starting point and desired endpoint. Contractors must commit to the Zero Disruptions journey and systematically undertake a comprehensive review of their operations at all locations.

Moreover, a crucial step in the Zero Disruptions journey requires companies to conduct robust scenario analyses and desktop simulations to identify possible consequences of identified vulnerabilities.

The benefits of doing so may make the difference between profitability and unprofitability, and may determine whether your company survives or fails following what could be a preventable or controllable disruption.

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He has 23 years’ experience in the insurance industry in risk assessment, strategic risk improvement, and risk management best practice development in the construction and manufacturing industries. He is a frequent presenter at CFMA national and regional conferences, and is an established author for CFMA Building Profits.

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Brian is CFMA’s past National Secretary and has served as Chairman of the Heavy/Highway Committee and the Succession Committee. Locally, Brian is a founding member of the Southeast Louisiana Chapter. In addition, he received CFMA’s Debra Hahn Memorial Award in 2005 and was the 2009 recipient of the Danny B. Parish Outstanding Leadership Award.

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Examples of “Business as Usual” Disruptions

These three scenarios are among more than 100 different scenarios we have heard in the past several years of “business as usual” turned into “business as unusual.”

**Scenario 1:** A contractor is relying on an electronic bidding system. No presubmittal was sent the evening before, and approximately 30 minutes before the final bidding deadline, another contractor working down the street strikes an underground utility line and disrupts all telecommunication lines. The estimator of the company attempting to submit the bid then switches to his remote data transfer air card, but his current location does not have enough signal strength and, therefore, the bid cannot be transmitted.

**The consequence:** This contractor lost its ability to submit the bid. Fortunately for this contractor, the bid that it attempted would not have been the lowest one submitted. Nevertheless, this contractor has instituted controls to ensure presubmittals and that backup systems are used. The company’s revised electronic bidding protocol imposes timelines for bids to be submitted at least one hour before the deadline to ensure sufficient time in case of another unforeseen disruption.

**Scenario 2:** A contractor has an important bid scheduled to be released on Tuesday. On Monday night, the estimator goes home, feeling good about its preliminary number. The estimator expected to finish picking up the remaining subcontractor prices, modify the final bid, and electronically submit it the next morning.

On the day of the bid, the estimator arrived early at the office, but is not able to enter the building due to a suspected natural gas leak near the office building. So, the contractor is not able to enter the building before the bidding deadline and the bid cannot be submitted.

**The consequence:** This contractor was not so fortunate. The bid that could not be submitted would have been the lowest bid and this disruption resulted in a lost opportunity to book a seven-digit bid.

A number of subcontractors were also excluded from the project because they offered preferred pricing to the contractor and were not favored by the winning bidder. This is an example of where reputation risk multiplies the pain of a financial loss.

**Scenario 3:** An unexpected ice storm hits a major Midwestern metropolitan area. Power is lost and a contractor’s computer servers are shut down. There is no access to the company payroll files and the company misses completing the required system update by the payroll processing vendor’s 11:00 p.m. deadline.

**The consequence:** The employees of this contractor with direct deposit instructions received their pay one day late and many of them incurred overdraft fees. Some of these employees were denied access to receiving funds from ATM machines or using cash cards at local stores on the day in question.

This contractor’s employees were penalized and embarrassed by their company’s lack of planning by not installing a suitable uninterrupted power supply device to allow the company’s computer servers to be safely shut down in case of a power disruption.

**Endnotes:**

1. The uninterrupted power supply is a device to provide backup energy for short-term use to allow a safe shutdown.

**Authors’ Note:** The information in this article was compiled from sources believed to be reliable for informational purposes only. All sample policies and procedures herein should serve as a guideline, which you can use to create your own policies and procedures. We trust that you will customize these samples to reflect your own operations and believe that these samples may serve as a helpful platform for this endeavor. Any and all information contained herein is not intended to constitute legal advice and accordingly, you should consult with your own attorneys when developing programs and policies.

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**web resources**

5. Disaster-Resource.com: [www.disasterresource.com](http://www.disasterresource.com)