Building an Emergency Plan

A Guide for Museums and Other Cultural Institutions

The Getty Conservation Institute

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The Getty Conservation Institute works internationally to further the appreciation and preservation of the world's cultural heritage for the enrichment and use of present and future generations. The Institute is an operating program of the J. Paul Getty Trust.

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Foreword

Hardly a week goes by without a story in the news about the destruction and havoc caused by a natural disaster striking some populated area of the world. If we also take into account the destructive events caused by human beings—war, terrorism, arson—disasters become an almost daily item in newspapers and on television. What is often omitted from reports detailing loss of life and property, however, is the all-too-frequent fact that cultural institutions and sites are affected and valuable cultural heritage damaged or destroyed.

Perhaps because Los Angeles is an area that is always "between two earthquakes," and every year we also run the risk of fires and mud slides, preparation for emergencies is taken very seriously at the Getty. The emergency plan of the J. Paul Getty Museum has served as a model for many other museums in the United States. The Getty Conservation Institute has also been involved in training and education of museum professionals on this topic.

It is impossible to eliminate natural disasters, and no one can reasonably expect that all damage can be avoided. Much can be done, however, to mitigate the effects of destructive natural events and to reduce the risk of damage or loss in other types of emergency situations.

This book is a complete guide to developing an emergency preparedness and response plan tailored to the specific needs of your institution. Its aim is to help you to become better prepared and to respond appropriately to protect your staff, visitors, and collections in the event of an emergency. Although you may assume that such a planning process will be formidable and complicated—and therefore expensive—this need not be the case. The success of the emergency planning process requires a strong commitment from the director and the participation of all staff, but the process is not complicated. Once undertaken, it can be a very positive learning and team-building experience for the institution. Many of the steps suggested here require minimal or no financial resources, while the return on time invested is immediate.

Thankfully, the majority of institutions will never have to face a major disaster. What a price to pay, however, if the unthinkable happens and you are not prepared! Years of conservation, care, and investment can be reversed in a few hours or even a few minutes. It is on those occasions that the time spent developing a preparedness and response plan will be fully rewarded.

The Getty Conservation Institute is grateful to the many individuals and institutions that contributed their expertise and experiences to this publication. I would like to especially acknowledge the work of Valerie Dorge, whose commitment to this effort has resulted in a publication that we hope will be a valuable guide in the development of your emergency plan.

Timothy P. Whalen
Director
The Getty Conservation Institute

Preface

December 1999 will bring to an end the International Decade for Natural Disaster Reduction. This designation was made by the United Nations General Assembly to raise global awareness about the need for preventing, or at least mitigating, the destruction that natural disasters—such as floods and earthquakes—can cause to cultural heritage. During this decade, great advances have been made at the regional, national, and international levels to protect cultural heritage not only against natural disasters but against disasters that are caused by human activity—including wars, bomb threats, and fires, the last of which often occur during building renovations.

Since the mid-1980s, the Getty Conservation Institute (GCI) has worked actively as an advocate for the protection of cultural property and toward the development of practical solutions to technical problems faced in protecting collections and buildings in emergency situations. Many of the GCI activities in this area have been carried out in collaboration with our colleagues at the J. Paul Getty Museum. Director John Walsh and his staff have long been committed to emergency preparedness and response planning, and to sharing this knowledge through participation in research, conferences, and emergency missions. The Museum's "Emergency Planning Handbook" has been the model for the emergency plans of many cultural institutions in the United States.

One such collaboration with the Museum took place in January 1992, when we jointly organized a workshop, "Emergency Planning in Museums," for museum directors and their senior staff. Its objective was to communicate the importance of emergency planning and to emphasize the need for involvement at the highest level of the institution's organization in order to facilitate the development and implementation of successful emergency plans.

Building an Emergency Plan is the result of a GCI project that began in 1995 as a proposed series of training workshops to follow the 1992 workshop. However, in the process of identifying written material to support these activities, we recognized the lack of a clear, step-by-step guide to developing emergency plans tailored to meet the specific needs of museums and other cultural institutions. With that realization, we focused our efforts on creating a publication that would fill this need.

The publication started as a draft document compiled by Elisabeth Cornu, head of objects conservation at the Fine Arts Museums of San Francisco, and myself, with input from our colleagues at the J. Paul Getty Museum: Jerry Podany, head of antiquities conservation; and Brian Considine, conservator of decorative arts and sculpture. Wilbur Faulk, the director of Getty Center Security, provided advice at specific stages of manuscript development.

The original material was transformed into a working tool for professionals by Sharon Jones, an education technologist and a professional writer. The final publication is a practical guide that walks the users, step-by-step, through their respective responsibilities in the planning process. Jones also gathered additional information through interviews with five colleagues in the cultural community who had experience in emergency preparedness and/or response. The following is a brief summary of the relevant experience of these advisers.

Barbara Roberts was head of decorative arts conservation at the J. Paul Getty Museum during the early stages of the Museum's emergency preparedness and response process. Since 1988, as a hazard mitigation consultant, she has participated at an international level in advocacy, training, and response activities, as well as in emergency missions.

Gail Joice is senior deputy director and registrar of the Seattle Art Museum. She was instrumental in developing and implementing the Museum's emergency plan. She chaired the American Association of Museums' Risk Management and Insurance committee from 1990 to 1995, and authored the committee document, "Questions to Ask Yourself When Preparing a Disaster Plan," a reference source for the "Questions to Consider" sections of this publication.

As director of the Barbados Museum and Historical Society, Alissandra Cummins guided her staff through the process of developing a written emergency plan that is regularly practiced, reviewed, and updated. Cummins also contributes to the efforts of the Museums Association of the Caribbean and other organizations to create a regional preparedness network to address the many hazards faced by cultural institutions in the Caribbean.

Conservator Johanna Maria Theile Bruhns participated in the salvage and recovery of collection items from the Museo de Arte Popular Americano in Santiago, Chile, damaged in the 1985 earthquake that destroyed the museum building. She also participated in the subsequent development of the museum's emergency plan, which aimed at avoiding a potential repeat of the 1985 devastation.

David Mathieson is supervisor of conservation at the Mystic Seaport Museum. He plays an important role in the regular review and practice of the emergency plan, and he promotes the importance of emergency preparedness through conference presentations, articles, and now this publication.

The emergency plans from each of the institutions represented in this project were used as background information; Figure 1 and the appendixes at the back of this book provide examples of format and content of specific sections of these emergency plans. You will note extensive differences (as evident in the tables of contents in appendix B). You will also see the similarities (for example, the job descriptions of the Seattle Art Museum emergency plan clearly are similar to those of the 1997 Getty Center "Emergency Planning Handbook"—a slightly revised version of the J. Paul Getty Museum's 1988 handbook, which was used as a guide). While it is very useful to benefit from the experience of colleagues who have been through the lengthy and somewhat complex emergency preparedness and response process, all the advisers stress the importance of developing a plan to meet the specific needs of the institution.

Publications that were consulted for additional information include *Steal This Handbook! A Template for Creating a Museum's Emergency Preparedness Plan*, by Allyn Lord, Carolyn Reno, and Marie Demeroukas, published in 1994 by the Southeastern Registrars Association; *Maritime Museum Emergency and Disaster Preparedness and Recovery Manual*, published in 1995 by the Council of American Maritime Museums; and two publications through the International Council of Museums (ICOM) and the International Committee on Museum Security, *A Manual of Basic Security*—by Robert B. Burke and Sam Adeloye, 1986—and *Museum Security Survey*, published in 1981.

Building an Emergency Plan is unique in a number of ways. First, it has a user-friendly format, which includes such tools as "Questions to Consider" and "Suggested Exercises" to help you address your institution's specific needs during the process. Second, the material has been organized into three parts that reflect the three main staff responsibilities in the emergency preparedness and response planning process: the director, the emergency preparedness manager, and the leaders of the departmental teams. Third, the responsibilities for preparedness and response activities have been assigned to different teams. This organizational structure is based on the experience of the advisers.

Acknowledgments

This publication is the culmination of the work of many people. In addition to the individuals already named, other contributors include John DiFrancesca, who assisted Sharon Jones in developing the first draft of chapters 1–3; Canadian Conservation Institute colleagues Deborah Stewart, David Tremain, and Paul Baril; Ann Blaschke and Tom Osborn of Getty Center Security; Peggy Tate Smith of rights and reproductions at the Mystic Seaport Museum; Shelley Bennet and Joe Shuster of the Huntington Library; and GCI colleagues Sheri Saperstein and Lorena Barros, who provided project assistance.

The publication would not exist without then-Director Miguel Angel Corzo's commitment to GCI's advocacy for the protection of cultural property, and without the commitment of Marta de la Torre, director of the Agora program and former director of the training program, who patiently guided this project through its winding evolution from course to publication.

Grateful acknowledgment is also extended to Dinah Berland, who ably managed the editorial production of this publication at the Getty Conservation Institute with the valuable assistance of editorial consultants Dianne Woo, developmental editor; Nomi Kleinmuntz, copy editor; and Scott Patrick Wagner, reference editor and electronic file manager. Thanks are due also to GCI staff members Valerie Greathouse for bibliographic verification, and Fiona Klonarides, who served as permissions editor. Special thanks to Jeffrey Cohen of Trust Publication Services for his very clear and useful design, and to Anita Keys, production coordinator, who shepherded the book into print.

Valerie Dorge

Introduction

Unfortunately, most people in the world view natural disasters with fatalism. They think that nothing can be done about them. This attitude is understandable but wrong. We have to try to change it. There is, in fact, a great deal that can be done to save lives and limit the damage.

—Olavi Elo
Director secretariat
International Decade for Natural Disaster Reduction

On March 3, 1985, an earthquake measuring 7.8 on the Richter scale struck Santiago, Chile. At least 146 people were killed, and more than one million others were injured. The quake destroyed the museum building belonging to the Museo de Arte Popular Americano in Santiago, along with many of the artifacts, including a major collection of Chilean folklore ceramics. The collection had to be moved to another museum so that a new facility could be built.

Earthquakes, fires, floods, hurricanes, and other displays of nature's wrath present a common and continual threat to cultural institutions all over the globe, which house a majority of the world's invaluable artifacts, historical documentation, and works of art, including sculptures, paintings, books, and ethnographic objects. Threats also can be a result of human activity, such as vandalism and terrorist bombings. Whereas many of these disasters remain out of our control, the ability to prepare and respond to them properly and effectively is *within* our control.

Table 1 is a sampling of emergency situations and the cultural property that was either destroyed or seriously affected. Few institutions are willing to make public the damage caused by disasters, particularly those caused by electrical fires or other internal problems that might have been the result of neglect.

The importance of emergency preparedness and planning cannot be emphasized enough, not only to the population at large, but to an institution's staff, administration, and board of trustees. *Building an Emergency Plan* is designed to guide the director and staff of any cultural institution through the long but essential process of creating an emergency plan. In addition to describing the team approach in the planning process—from the emergency

Table 1 **Some Recent Disasters Affecting Cultural Institutions Around the World**

Earthquake	1997	Basilica of St. Francis	Assisi, Italy
	1995	Kobe City Museum, Museum of Modern Art	Kobe, Japan
	1989	Asian Art Museum	San Francisco, California
		Cooper House, other historic buildings	Santa Cruz, California
	1985	Museo de Arte Popular Americano	Santiago, Chile
Terrorist Bombing	1994	Argentine Israeli Mutual Association, Archives	Buenos Aires, Argentina
	1993	Galleria degli Uffizi	Florence, Italy
Flood	1997	Numerous museums, libraries, archives, historic buildings	Southern Poland
	1995	Museu Nacional	Rio de Janeiro, Brazil
	1995	Santa Barbara Museum of Art	Santa Barbara, California
	1993	Casa de la Cultura	Portoviejo City, Ecuador
	1988	Carillo Gil Museum	Mexico City, Mexico
	1986	Museo Colchagua	Colchagua Province, Chile
Fire	1997	Thomas Wolfe Historic Site	Asheville, North Carolina
	1996	La Compañía de Jesús	Quito, Ecuador
	1993	Yuma Arizona Art Center	Yuma, Arizona
	1992	Windsor Castle	Berkshire, England
	1988	The Cabildo, Louisian State Museum	New Orleans, Louisiana
	1988	Library of the Russian Academy of Sciences	Leningrad, USSR
	1986	Hampton Court Apartments	London, England
	1985	Huntington Library/Gallery	San Marino, California
	1985	York Minster	York, England
	1981	Stanford Library	Stanford, California
Hurricane	1989	City Hall, other historic buildings	Charleston, South Carolina
	1989	More than 200 historic buildings	Charlotte, North Carolina
War	1993	National Museum of Afghanistan	Kabul, Afganistan
	1991–93	Zemaljski Muzej	Sarajevo, Bosnia
		Numerous other historic buildings	Bosnia
	1991–93	Gradski Muzej	Vukovar, Croatia
		Numerous other historic buildings	Croatia
	1990	Kuwait National Museum	Safat, Kuwait
Volcanic Eruption	1995	Montserrat National Trust Museum	Richmond Hill, Montserrat

preparedness manager to the departmental teams—this book provides useful tips to help in assessing your institution's vulnerabilities, developing strategies for evacuating people and collections, and organizing a response and recovery plan that returns operations to normal. Ways to generate and maintain enthusiasm and to change fatalistic attitudes toward emergency preparedness are also addressed.

How to Use This Book

Building an Emergency Plan is designed to guide an institution and its staff through the process of developing a team-based emergency preparedness and response program, which results in the creation of an emergency preparedness and response plan. The book is organized into three parts.

Part I (chapters 1–2) is designed as a resource for the director of the institution. It provides an introduction to the emergency planning process and describes the director's responsibilities, which include setting a policy, establishing a budget, and communicating with the board of trustees.

Part II (chapters 3–5) is intended as a resource for the emergency preparedness manager (EPM). The EPM is designated by the institution's director to oversee the development and implementation of the emergency preparedness and response program and to head the emergency preparedness committee (EPC).

Part III (chapters 6–9) is to be used as a resource for four departmental preparedness teams—safety and security, collections, buildings and maintenance, and administration and records—that work in conjunction with the EPC. A copy of each chapter should be distributed to the appropriate departmental team leaders and representatives of those departments who are on the EPC. Chapter 6 is for the safety and security team, chapter 7 for the collections team, and so forth. Each chapter outlines what team members need to consider in researching issues related to the emergency plan. If your institution does not have all these departments, staff members should divide the duties and responsibilities among themselves.

Located throughout this book are a series of "Suggested Exercises" and a series of "Questions to Consider." These elements provide brainstorming ideas and data-gathering tips to assist you in relating the information to your specific institution.

Emergency preparedness materials from other institutions, including evacuation procedures, supply and equipment lists, and action checklists, are provided in appendixes at the end of the book. The following "Terms to Know" section defines and clarifies the various terms used throughout. Variations of these terms can be found in related literature.

Terms to Know

Communications coordinator: Works closely with the director and the emergency response coordinator during an emergency situation.

Departmental preparedness team: Assists the emergency preparedness manager and the emergency preparedness committee in the emergency preparedness and response process. Each team provides input as appropriate for the function, or department, each represents.

Disaster: An event that results in significant loss, damage, or destruction. An emergency can become a disaster if immediate action is not taken to protect staff, visitors, and the collection.

Emergency: An unanticipated event or series of events that requires immediate action.

Emergency plan handbook: Describes staff response for all potential emergencies, chains of command during an emergency, and recovery procedures. Contains fact sheets, supply lists, and contact lists. The handbook is distributed to all staff.

Emergency preparedness and response plan (a.k.a. the emergency plan or "the plan"): Identifies an institution's vulnerabilities to emergency situations; indicates how to prevent or mitigate potential effects; describes staff response; and provides a blueprint toward recovery. The plan eventually should be condensed into an emergency plan handbook.

Emergency preparedness and response process: A structured, ongoing effort to build an emergency preparedness and response program that includes creation and maintenance of a written plan, as well as an emergency plan handbook.

Emergency preparedness and response program: A systematic, multidepartmental program that guides staff through the emergency preparedness process and leads to the development and maintenance of a comprehensive emergency plan.

Emergency preparedness committee (EPC): Oversees the development and implementation of the emergency preparedness and response program. Led by the emergency preparedness manager, the committee should include senior administrators and representatives—appointed by the director—from each of the institution's key functions.

Emergency preparedness manager (EPM): Leads the emergency preparedness committee through the preparedness and response program. The director may assume this responsibility or assign it to a senior staff member. In either case, alternates should be selected.

Emergency response coordinator (ERC): Coordinates all response and recovery activities during an emergency.

Hazard: A natural or human-caused phenomenon that may occur in or near the institution and may threaten human life and well-being or cause physical damage and economic loss.

Preparedness: Activities that prepare and equip personnel to handle an emergency, such as training staff in evacuation procedures, compiling and maintaining up-to-date contact information, and stockpiling supplies.

Prevention: Activities, such as eliminating hazards, that focus on preventing an emergency from occurring and on reducing harm to people, collections, and property in the event of unavoidable emergencies.

Recovery: Actions taken following an emergency in order to return operations to normal. Depending on the type and extent of the emergency, this can be a long-term process.

Recovery plan: Part of the overall emergency plan, the recovery plan outlines what steps to take to restore normal operations.

Response: Activities that provide temporary care and relief for victims of emergencies and prevent avoidable casualties and property damage.

Response plan: Part of the overall emergency plan, the response plan includes procedures to be taken in response to any emergency.

Risk: The possible injury or loss of life, or damage to property from the identified hazard or hazards.

Staff emergency procedures: Concise, step-by-step descriptions of what should be the staff's first response in the event of an emergency—usually published as a handout.

Threat: An indication of imminent danger.

Vulnerability: The extent to which geographic region, community, services, collections, and structure(s) are likely to be damaged or disrupted by the impact of a hazard.

We found that the process of planning for disasters has some surprising side benefits. The working groups who develop the plan learn a lot about each other's work. You get real solidarity out of the process. There's the important subliminal message for the staff that the museum is making a conscientious effort to care for its visitors, its collection—and them.

— John Walsh
Director
The J. Paul Getty Museum

Part I For the Director

Overview

The two chapters that follow are designed to serve as a resource for you, the director, in developing and guiding the emergency preparedness and response program for your institution.

Chapter 1 introduces the general requirements of an emergency plan, lists the benefits of an emergency preparedness and response program, and explores four case histories of museums that have developed plans and refined them following either a real emergency or a practice drill. This chapter also discusses the reality of emergencies and the threat they pose not only to your institution, but also to you, your staff, and those who visit your institution. Advice is provided from administrators who have experienced emergencies firsthand and have initiated preparedness and response programs as a result, or who have recognized a need for and developed such a program, perhaps based on the experience of others.

Chapter 2 provides an overview of the director's responsibilities in the program. Also covered are the roles of the emergency preparedness manager (EPM), the emergency preparedness committee (EPC), the emergency response coordinator (ERC), and the departmental planning teams; the tasks that your staff will need to perform to build an effective emergency preparedness and response program; and what can be done without spending an excessive amount of money to reduce immediately the risk faced by your institution. Depending on the size of your institution, you may wish to become more involved in the planning process beyond the tasks outlined in this chapter. In this case, you should also read the chapters in Part II, which are designed for use by the EPM and the EPC.

CHAPTER ONE

An Introduction to Emergency Preparedness and Response Planning

It is Thursday night, and you are alone in your office, working late. Deep in thought, you sit at your desk, surrounded by documents concerning next year's budget. Most of the staff has left for the day. The maintenance crew is working in another wing of the museum. The silence is broken by a muffled popping noise, but you do not think anything of it. Unbeknownst to you, an electrical wire has shorted out inside a wall near the main exhibit hall. As you continue preparing the budget report, sparks lead to flames. One wall is soon engulfed. The collections—and your life—are at risk.

Your institution is equipped with smoke alarms, of course. But have the batteries been checked and replaced recently? How long will it take before smoke from the fire triggers an alarm? If flames block a hallway or stairway near your office, how will you escape? Do you have a mask to wear to protect your lungs from the smoke? Is a flashlight at hand? Where are the emergency telephone numbers? Does the maintenance crew know what to do or whom to call? Do local firefighters know what special techniques to use to protect the collection? Are up-to-date copies of institution records stored off-site? Who is going to handle the news media?

You know what the answers to these questions should be, but are they in fact true for your facility? In recent years, there has been much discussion of emergency preparedness and response. The 1990s have been designated the International Decade for Natural Disaster Reduction (IDNDR) by the United Nations General Assembly. Has all this talk, though, made a difference to you, the director, and your institution? How much planning have you and your staff actually done?

Unfortunately, the answer from most directors is very little. Too much competition for staff time, energy, and resources is a common explanation given. Emergency preparedness often is not at the top of the list of priorities—until it is too late. The threat to an institution can be drastically reduced by launching and maintaining an effective preparedness and response program. Doing so is easier than you think, and more valuable than you realize.

Table 2 **Twenty-four Years of Museum Fires Resulting in Losses of More Than US$1 Million**

August 9, 1993	*Museum*	Oakland Museum, Oakland, California
	Cause	defective exhibit motor in storage room
	Protection system	smoke detectors, but no sprinklers
	Loss	gallery and some loaned items, estimated at $1 million
June 2, 1993	*Museum*	Oshkosh Public Museum, Oshkosh, Wisconsin
	Cause	welding ignited interior roof space during renovations
	Protection system	smoke detectors in the museum, but none in the area, no sprinklers
	Loss	10% of the collection and collection records, estimated at $2 million
April 19, 1993	*Museum*	Yuma Arizona Art Center, Yuma, Arizona
	Cause	electrical (suspected)
	Protection system	smoke detectors, but no sprinklers
	Loss	historic building and 39 objects, with some smoke and water damage, estimated at $1.5 million
November 20, 1992	*Museum*	Windsor Castle, Berkshire, England
	Cause	blow torch used during renovations (suspected)
	Protection system	no smoke detectors or sprinklers
	Loss	tower, several rooms, tapestries, and minor paintings, estimated at $90 million
May 11, 1988	*Museum*	The Cabildo, Louisiana State Museum, New Orleans, Louisiana
	Cause	spark from welding equipment during renovations
	Protection system	smoke detectors, but none in the area, no sprinklers
	Loss	furniture collections in the attic, roof, structural damage, estimated at $5 million
February 14, 1988	*Museum*	Library of the Russian Academy of Sciences, Leningrad, USSR
	Cause	electrical (suspected)
	Protection system	no smoke detectors or sprinklers
	Loss	building, 400,000 volumes, water damage to 3.6 million volumes , no loss value given
March 31, 1986	*Museum*	Hampton Court Apartments, London, England
	Cause	candle in private apartment
	Protection system	no smoke detectors or sprinklers
	Loss	one life (a resident), upper floors, roof, two paintings, and period furniture, estimated at $6 million
October 17, 1985	*Museum*	Huntington Gallery, San Marino, California
	Cause	electrical, in the elevator
	Protection system	smoke detectors in the gallery, but none in the elevator or elevator shaft, no sprinklers
	Loss	elevator and elevator shaft, one minor painting, extensive smoke damage, estimated at $1.5 million

Facing the Facts

The reasons for preparedness are self-evident, but resistance to emergency plans in museums—including drills, practice sessions, and staff training—has remained. It's that familiar combination of avoidance and denial. Nevertheless, emergency planning is a matter of common sense and responsibility.

— John Walsh
Director
The J. Paul Getty Museum

An emergency may come in the form of a natural disaster, such as an earthquake, a hurricane, a forest fire, a volcanic eruption, or a flood. It is more

Table 2, *continued*

April 29, 1985	*Museum*	Los Angeles Public Library, Los Angeles, California
	Cause	arson (an employee)
	Protection system	smoke detectors, but no sprinklers in the open stacks
	Loss	building interior, roof, and 70% of the collection, estimated at $24 million
December 31, 1984	*Museum*	Byer Museum of Art, Evanston, Illinois
	Cause	electrical (suspected)
	Protection system	smoke detectors, but no sprinklers
	Loss	upper two floors and roof, with extensive water damage, estimated at $3 million
January 23, 1982	*Museum*	Franklin D. Roosevelt National Historic Site, Hyde Park, New York
	Cause	faulty electrical wiring
	Protection system	smoke detection system, but not in the attic
	Loss	attic, 30% of the furnishings in three rooms, major smoke and water damage to the central portion of the house, estimated at over $2 million
July 8, 1978	*Museum*	Museum of Modern Art, Rio de Janeiro, Brazil
	Cause	smoking or defective wiring (suspected)
	Protection system	no smoke dectectors or sprinklers
	Loss	most of the interior, the roof, and 90% of the collection, estimated at $50 million
February 22, 1978	*Museum*	San Diego Aerospace Museum, San Diego, California
	Cause	arson
	Protection system	no smoke detectors or sprinklers
	Loss	building and entire collection, including 40 planes and library, estimated at $16 million
September 30, 1970	*Museum*	National Museum of American History (Smithsonian Institution), Washington, D.C.
	Cause	electrical short in an exhibit
	Protection system	smoke detectors, but no sprinklers
	Loss	two galleries with their exhibits, some water damage, estimated at $1 million
August 9, 1970	*Museum*	The Henry Ford Museum, Dearborn, Michigan
	Cause	electrical
	Protection system	smoke detectors, but no sprinklers in the area
	Loss	several historic displays of shops and equipment, estimated at $2 million

All monetary values shown are in U.S. dollars.

likely, however, that the threat will be localized and caused by human activity. Fire is the most common cause of damage to cultural property. Table 2 shows a sampling of institutions that have suffered fire-related losses of more than US$1 million between 1970 and 1993.[1]

Each day, television news broadcasts show graphic images of floods, fires, civil disturbances, and other emergencies around the world. In the last thirty years, economic losses from natural disasters have tripled, rising to more than US$120 billion during the 1980s. That figure does not include the losses from human-caused disasters, such as civil unrest, military coups or invasions, arson fires, and burst dams.

Awareness of these and other threats to our cultural heritage is growing rapidly. In addition to the declaration of IDNDR by the United Nations, many countries have ratified the 1972 United Nations Convention for the Protection of the World Cultural and Natural Heritage. Furthermore, many nations

have signed the 1954 United Nations Convention for the Protection of Cultural Property in the Event of Armed Conflict.

The expanding global and regional interest in emergency preparedness and response can work to your advantage. You can capitalize on this concern as you solicit support for your emergency preparedness and response efforts.

"If a disaster happens, it happens," you may say to yourself. "There's little I can do to prevent it." That is a common belief. True, you cannot *prevent* a natural disaster, but you can drastically *reduce* its effect on human life and property. You also can take on a major role in safety and prevention efforts to eliminate the more common threats of fire caused by poor wiring or old plumbing and damage caused through lack of supervision during renovation work.

Or you may say, "I don't have the time to make emergency preparedness and response a priority." Consider the implications of that attitude. What would you say to the community after a fire ravages the collection? Would you speak of the wiring that needed to be replaced, or the roof that you knew was not fire-resistant?

You may be thinking, "We cannot afford emergency preparedness. We are a small museum, and I am pushing my staff and budget as hard as I can." In reality, considering the value of the collection and/or your building, what you *cannot* afford is to ignore the need for an emergency preparedness and response program. Staff members will understand that they have a personal stake in this effort, and they will appreciate your concern about their safety and that of visitors and the collection.

In 1985, at the Huntington Library Art Collections and Botanical Gardens in San Marino, California (in the Los Angeles area), fire broke out at night in the electrical wiring of a gallery elevator. The 1777 *Portrait of Mrs. Edwin Lascelles* by Sir Joshua Reynolds, which hung on a gallery wall on the ground floor opposite the elevator, was destroyed when the heat caused the elevator doors to burst open. At the time, the institution did not have an emergency plan. Today it does, and it has been put to the test more often than Shelley Bennett, curator of British and Continental art at the Huntington, cares to recall. "We have had every disaster you can think of," she says, referring to earthquakes, flooding, and other emergencies that have plagued Los Angeles in recent years. "The only thing I do not have to talk about are locusts!"[2]

By outlining what employees should do, what their priorities for action should be, and where to turn for help, the Huntington Library's emergency preparedness and response plan has made a tremendous difference in the institution's ability to cope with a crisis. "In the immediate response to a disaster, you are often frozen," adds Bennett.[3] A well-thought-out emergency plan quickly remedies that.

As the director, you may be confident that you will not "freeze" in a crisis. Bear in mind, however, that in all likelihood you will not be there when an emergency strikes your institution. Nevertheless, having an emergency preparedness and response plan in place will enable those who are present to act responsibly.

Suggested Exercise

At your next management meeting, take a moment to discuss a scenario in which a fire breaks out in your most highly valued gallery. Indicate where the fire begins and at what time. Brainstorm who might be present and how long it might take before the fire is discovered. What kind of damage would be caused by flames or by smoke? What emergency procedures should be followed? Is your facility both equipped and prepared to follow such procedures? Identify your institution's strengths and weaknesses.

The Emergency Preparedness and Response Planning Process

> *One of the secret ingredients that will contribute toward your being able to sustain the energy and attention needed to devise one of these plans—and it is not glamorous work—is the understanding that, yes, the final report is significant, but the process is equally important. The remarkable things that one learns about the institution's strengths, to some extent, but about its weaknesses, more so, are as valuable as the final plan.*[4]
>
> — Robert Bergman
> Director
> Walters Art Gallery, Baltimore, Maryland

In setting up an emergency preparedness and response program, the goal is to make the process of planning, assessment, and review of the emergency plan part of a regular routine. Launch the program by announcing an institutionwide emergency preparedness policy and appointing an emergency preparedness manager (EPM). This notifies the staff, from the beginning, of the importance of emergency preparedness and response. From there, the program produces a written emergency plan that is tested regularly and adjusted as needed.

A successful program requires commitment, patience, teamwork, and an annual budget. The most time-consuming and costly requirement is staff participation. The benefits of staff involvement, however, are numerous and extend far beyond the main goal of saving lives and collections in the event of a crisis. "Staff bonding is one of the great benefits," remarks Gail Joice, senior deputy director and registrar of the Seattle Art Museum, Seattle, Washington. "We joke about it because of our preparation work; if an earthquake is going to hit, we'd like it to be while we are at the museum. There is a sense of well-being in that."

"We've learned the power of acting as a group," Alissandra Cummins, director of the Barbados Museum and Historical Society, says. "We've learned the importance of continual dialogue and working together on general issues such as preparedness."

Other benefits that have been identified through the emergency preparedness and response process are

- greater potential for protecting human lives and property;
- greater safety awareness and preservation of assets;
- education and heightened staff awareness on professional and personal levels, leading to employee empowerment and higher staff morale;
- heightened security;
- higher ratings for risk management/insurance, which can lower premium costs;
- increased community recognition and outreach, including increased volunteer participation;

- greater community support, such as fund-raising, for capital improvements;
- collaboration and stronger relationships with peers at other institutions;
- two-way exchange of information with the media, resulting in more accurate reporting; and
- fulfillment of fiduciary responsibilities for board members, director, and staff.

Table 3 shows a breakdown of the responsibilities involved in the emergency preparedness and response program.

Table 3 **Individual Duties and Responsibilities in the Emergency Preparedness and Response Program**

Director	• Sets emergency program policy • Appoints EPM, EPC, ERC • Appoints communications coordinator, if necessary • With EPC, does initial vulnerability assessment • Presents assessment to board to secure board's commitment • Establishes budget for program • Continues to act as liaison between EPM and board • Oversees development of list of resources (agencies, organizations, local police/fire departments, other cultural institutions) • Oversees and guides involvement of community and media in the planning process
Emergency preparedness manager (EPM)	• Works with director to appoint EPC, ERC, and communications coordinator • Heads EPC • Works with EPC to appoint departmental teams and team leaders • Organizes and conducts staff drills • Keeps director up to date on progress • After disaster occurs, holds postmortem review meetings
Emergency preparedness committee (EPC)	• Oversees departmental teams and team leaders • Works with EPM, ERC, and team leaders to select response teams • Develops list of resources (agencies, oragnizations, local police/fire departments, other cultural institutions); establishes relations with such resources • Involves and establishes contacts with community and media • Uses initial vulnerability assessment to identify potential hazards • Distributes hazard data to departmental teams for development of detailed vulnerability and asset assessment report • Keeps EPM up to date on teams' progress • Implements preventive/preparedness measures as recommended by departmental teams • Develops response plan and recovery plan based on information from departmental teams • Writes and distributes the emergency plan
Emergency response coordinator (ERC)	• Works with EPM, EPC, and team leaders to select response teams • Implements preventive/preparedness measures as recommended by departmental teams • During a disaster, sets up and runs emergency command center
Departmental preparedness teams	• Four teams: safety/security, collections, buildings/maintenance, administration/records • Each consists of 2 teams: preparedness team and response team • Each preparedness team submits 2 reports to EPC: (1) vulnerability/asset assessment and (2) outline of response procedures • Response teams contribute to the departmental preventive-preparedness measures, response plan, and recovery plan • All information and data are submitted to EPC for inclusion in the emergency plan

Devising the Emergency Plan

> *Once the process of planning for an emergency has begun, it builds its own momentum. You will probably finish a considerable distance from where you thought you might end up, but you will be there to tell a fine story and to be justifiably proud that life, safety, and the cultural property with which you spend your daily life is right there with you.*
>
> — Barbara Roberts
> Conservator and hazard mitigation consultant

From the emergency preparedness and response program, the emergency plan is formed and kept up to date. The plan's chain of command, contact information, and response and recovery procedures are then published in an emergency plan handbook, which is made available to all employees.

The emergency plan should cover four protection measures:

1. **Prevention.** Eliminate hazards or reduce their potential effects on staff and visitors, on the collection, and on other assets. For example, clearing away debris from around the outside of the building helps eliminate the potential for a fire that could endanger lives and damage property.
2. **Preparedness.** Prepare and equip personnel to handle an emergency. For example, create emergency telephone lists, stockpile supplies, and train staff and volunteers how to use them.
3. **Response.** Prevent injury and limit losses after the event. For example, train staff and volunteers to evacuate visitors, colleagues, collections, and records safely.
4. **Recovery.** Prepare and train staff to carry out the process that returns operations to normal. For example, following a disaster, staff and volunteers may spend months sorting through the gift store inventory and discarding damaged items, or sorting through the collection and carrying out basic washing or surface-cleaning tasks.

The emergency plan should also include a description of when to activate response procedures and to what degree they should be carried out. Steps on how to communicate to staff that the institution is operating in "emergency mode" and when to declare that an emergency is over should also be addressed. The plan should explain duties and procedures in the following areas:

Organization

- The roles of the response team or teams in an emergency
- How to set up a central base of operations following an evacuation
- How to set up a communications and public relations post

People

- When to evacuate staff and visitors, and who should make the decision
- How to establish an emergency shelter
- How to provide medical assistance if necessary
- How to contact staff and volunteers and their families via an emergency telephone and address list that includes trustee officers and volunteers
- How to contact external experts for support or assistance

Collections, buildings, and other assets

- When to relocate or evacuate the collection, and who should make the decision
- How to contact the insurance agent(s)
- How to perform damage assessments
- How to protect the building and grounds
- What supplies are needed and where they are stored

To be effective, the emergency plan needs to be

- actively supported by the director, governing body, and all levels of staff;
- simple, focusing mainly on situations that are most likely to occur;
- flexible enough to accommodate unanticipated situations;
- realistic in its assessment of museum resources; and
- tested regularly, and at least annually, with an emergency drill and debriefing.

In devising the emergency plan, staff must work together to gather information regarding the institution, the collection, and the potential threats, as well as to implement preventive measures and develop emergency response procedures. For example, one of the first steps is to do a vulnerability analysis. Employees may be motivated to suggest equipment or construction projects that require substantial funding resources: for example, new electrical wiring; a fire sprinkler system; or a stronger, more hurricane-resistant roof. These suggestions probably will not come as a surprise to you and, in many cases, may involve maintenance problems that have not been addressed due to lack of funds. A dilapidated plumbing system, an antiquated furnace, or a leaky roof naturally put a collection at risk.

A comprehensive emergency preparedness and response program requires a substantial commitment of staff time and financial resources. Once the vulnerability analysis is done, the data gathered can support a public emergency preparedness development campaign. Bring these financial priorities to the attention of board members, the institution's supporters, and the local community. Encourage the local media to work with you to improve awareness of your facility. Some institutions have successfully used the media to alert the community to their needs and to solicit donations for their emergency preparedness and response program.

The questions in Table 4 at the beginning of chapter 2 (page 28) will serve as a quick assessment of your institution's need for an emergency plan. Many steps can be taken immediately to remedy certain problems, even if the institution is on a restricted budget. In general, these steps include

- identifying potential natural and human-caused disasters specific to the area and assessing the vulnerability of the museum to these threats;
- identifying assets (including staff resources, collections, and buildings) and prioritizing them in order of importance;
- developing and implementing measures designed to mitigate the effects of potential disasters, such as training staff in the use of fire extinguishers and installing smoke detectors and fire suppression systems;
- determining steps to be taken in response to an emergency, including evacuation of staff and the public, and evacuation or relocation procedures for the collection; and
- creating plans for recovering from disasters, communicating with the public, and resuming normal operations.

If employees are involved in the planning and reviewing process and have been trained in their individual roles and general procedures, they and the institution as a whole will be able to

- anticipate, mitigate, and work to avoid the effects of disasters, particularly those that are the result of a human-caused emergency situation;
- be prepared so as to avoid panic when an emergency or a disaster occurs;
- respond and recover as quickly as possible, with minimal ill effects on life, resources, and services; and
- maintain staff morale during an extremely stressful time period.

Taking a Cue from Other Institutions

In preparing your facility's emergency plan, it is helpful to examine the plans established by other institutions. The following case histories present the stories of four museums that currently have emergency preparedness and response programs: the Barbados Museum and Historical Society, the Museo de Arte Popular Americano, the Mystic Seaport Museum, and the Seattle Art Museum. For some of these museums, it took an emergency, or several, before their administrators decided to develop a plan. They explain here how they did it—and why.

Case 1 Barbados Museum and Historical Society

The Barbados Museum and Historical Society, St. Ann's Garrison, St. Michael, Barbados. Courtesy of the Barbados Museum and Historical Society.

Location: St. Michael, Barbados, British West Indies

Director: Alissandra Cummins

Area: 20,000 square feet (1,860 square meters), including 10,000 square feet (930 square meters) in galleries

Employees: 26

Collection: Archaeology, natural history, militaria, fine art, decorative art, social and industrial history, toys and dolls, textiles, ethnographic artifacts, photographs, and other ephemera

Impetus for emergency plan: Devastation of the Caribbean islands in 1988 by Hurricane Gilbert

Sources consulted: U.S. National Trust for Historic Preservation, the Caribbean Conservation Association, and the Island Resources Foundation workshop, 1991; and the emergency preparedness initiatives of the Museums Association of the Caribbean, launched in 1954[5]

Potential natural hazards faced: Hurricanes, floods, fires

Emergency plan highlights: Staff telephone numbers; site maps of the museum showing exits, galleries, and so forth; location of fire alarms and smoke detectors; step-by-step instructions for equipment and procedures, including shutting off utilities; evacuation procedures for staff, visitors, and collections; guidelines for handling objects; and a list of who has copies of the plan. The plan lists addresses, telephone numbers, and contacts for companies and institutions that have agreed to provide emergency equipment if needed. The response effort is led by six core teams of four members each that are assigned to specific areas, such as galleries or administration. The plan includes instructions for each team. The plan is revised after each annual drill and subsequent evaluation. The current plan is the seventh draft.

Annual budget for emergency planning and implementation: US$2,500–$5,000

Lessons learned in the process of developing an emergency plan:

- The response plan must be launched at least forty-eight hours before a hurricane hits.
- At least two physically strong people must make up part of each team.

Information for this case was provided by Alissandra Cummins, director of the Barbados Museum and Historical Society and an adviser in the development of this book.

- In the event of a national disaster, do not assume there will be immediate access to mainland resources.
- Institutions must lobby for priority status in community response plans. Collaboration with other cultural institutions helps build lobbying power.
- The police or fire department cannot always be relied on during the response phase of a national disaster.
- The media are interested in emergency preparedness efforts. Share information with them to encourage prompt, accurate coverage in the event of an emergency.
- Permanent internal protective shutters should be installed before a disaster strikes, such as in storage locations and on library cases. This eliminates time needed to install temporary shutters during emergencies.
- Archival, fine art, and other vulnerable objects should be stored in impermeable cartons to reduce packing time in an emergency. Keep extra cartons on hand in the administrative offices for packing files in the event of an emergency.
- Local companies will donate needed emergency supplies if asked.
- Share your plan with officials of local or national civil emergency response organizations, such as the fire department and civil defense.
- Check and change batteries regularly in smoke alarms, radios, flashlights, and cameras (which also should be loaded with film).
- Ask local insurance companies to supply risk management material.

Building the team: National emergency response planners in Barbados had published a booklet outlining what residents should do to protect themselves and their families in the event of a hurricane, but two-thirds of the Barbados Museum staff had never seen this booklet. Those responsible for the museum's emergency response plan reminded staff of the available resources, posted lists of shelters, and created a buddy system in which employees with cars were assigned to pick up those without cars.

How the plan stood up to the test: Museum emergency preparedness planners initially believed they would need to activate response efforts twenty-four hours before a hurricane was expected to hit. After testing the plan, however, they realized that staff would be more concerned about the safety of their own families at that time than with protecting the museum. Consequently, the planners decided that efforts would begin more than forty-eight hours beforehand. "That was a major decision," says Alissandra Cummins. "It required recognizing the psychological effects that such a plan would have upon the staff."

Words of advice: According to Cummins, the hardest part of the emergency preparedness and response process comes at the beginning: convincing yourself as director that engaging in the process is the right thing to do. "Once you start, it is not so scary in its immensity or complexity," she explains.

Case 2 Museo de Arte Popular Americano, Facultad de Arte, Universidad de Chile

Front view of the newly constructed building of the Museo de Arte Popular Americano, Facultad de Arte, Universidad de Chile, Santiago, Chile. Courtesy of the Museo de Arte Popular Americano.

Information for this case was provided by conservator Johanna Maria Theile Bruhns, coordinator of the restoration program of the Facultad de Arte, Universidad de Chile, Santiago. She was also an adviser in the development of this book.

Location: Santiago, Chile

Director: Silvia Rios

Area: 7,449 square feet (692 square meters)

Employees: 12, plus students from the Facultad de Arte restoration program

Collection: Textiles, wood, sculpture, prints, ceramic, ethnographic and folklore artifacts

Impetus for emergency plan: A devastating earthquake measuring 7.8 on the Richter scale that hit Santiago in March 1985. The earthquake killed at least 146 people, injured more than one million others, and destroyed the museum building and much of the collection. The undamaged and salvaged items in the collection were moved to another museum until a new building opened in 1997.

Sources consulted: *Emergency Measures and Damage Assessment After an Earthquake* by Pierre Pichard.[6] Also, S. A. S. Enrique Strahenberg, then-director of the Schloss Eferding in Eferding, Austria, who happened to be in Chile during the March 1985 earthquake, shared his institution's emergency preparedness materials.

Potential hazards faced: Earthquakes, fires, floods, political demonstrations

Emergency plan highlights: The plan is divided into two major areas: people and collections. It describes the evacuation procedures, designates employee tasks, and describes where emergency supplies are stored. It contains maps of the museum and phone numbers of all employees and of police and fire officials. Security guards are expected

to guide people out of exhibit areas and the library, whereas specific staff members have been assigned that task for nonpublic office areas.

Annual budget for emergency planning and implementation: US$1,000 for first year of implementation

Lessons learned in the process of developing an emergency plan:

- Regular meetings with fire officials can be useful.
- Regular drills allow gradual refinement of the emergency plan.
- Employees should carry identification cards to avoid being mistaken for demonstrators during political protests or for spectators during emergencies.
- Emergency preparedness and response materials developed by other museums should be consulted for ideas.
- Multiple copies of damage assessment forms must be available in case electricity goes out during an emergency, rendering photocopiers inoperable.
- A systematic evacuation procedure allows employees to pack priority objects, documents, and so on, quickly and to locate them afterward.
- Security officers must have access to a list of high-priority objects in case an emergency occurs when no institution administrators are available.
- Plastic sheets and stones, for use as weights, should be stored in offices in case the roof leaks or is damaged.
- The institution should have an alarm system so staff can alert police during a robbery.

Building the team: Memories of the 1985 earthquake proved to be an effective inspiration and motivation for the museum to launch its emergency preparedness and response program. With the passage of time, the daily challenge of running the museum has taken precedence, causing some team members to lose their enthusiasm and drive in maintaining the program. Consequently, emergency planning leaders have had to find ways to restimulate that interest and concern. "After the earthquake, it was very easy to convince the museum staff to participate in emergency planning," says conservator Johanna Maria Theile Bruhns. "The difficulty now is continuing emergency planning day by day. When you don't have problems, it seems everybody starts to relax a little too much. It is difficult to make them realize that you have to think about emergencies even when nothing is happening."

How the plan stood up to the test: "We learned from the earthquake in 1985 that it is important to have a good and easy-to-follow emergency plan ahead of time, one that everyone understands," explains Theile Bruhns. "By the time a disaster happens, it is too late to come up with a plan, not only because the building can collapse but also because you lose the ability to think clearly." The museum conducts regular emergency drills, which has helped familiarize staff with the process. "At first, the staff didn't feel secure about what they needed to do and whether they were doing it well, but now that we are having drills regularly, we don't have any problems at all," Theile Bruhns adds.

Words of advice: As Theile Bruhns points out, "In working with other museums, we realize that collaboration is important, as we are small, with very little money. Together, we wield more power and can obtain assistance more easily."

Case 3 Mystic Seaport Museum

View of some of Mystic Seaport Museum's buildings and one of the ships in its collection, showing the museum's location on the waterfront in Mystic, Connecticut, which makes it susceptible to seaborne hazards. Courtesy of the Mystic Seaport Museum. Photo: Judy Beisler.

Location: Mystic, Connecticut

President and director: J. Revell Carr

Area: 40 acres (16.2 hectares)

Employees: 445 regular full- and part-time, 200 seasonal

Collection: More than two million objects, including art, tools, books, photographs, film and video footage, sound recordings, ship plans, maps and charts, plus the world's largest collection (480-plus) of historic ships and small craft, as well as historic buildings

Information for this case was provided by David Mathieson, supervisor of conservation at the Mystic Seaport Museum in Mystic, Connecticut, and an adviser in the development of this book.

Impetus for emergency plan: In 1938, eight years after its founding, the Marine Historical Society—now called the Mystic Seaport Museum—was hit by a hurricane. The library collection suffered US$1,000 in losses. The threats from Hurricanes Carol and Edna in 1954 prompted museum administrators to take preventive action. Plans already developed were put into written form. In the process, it was discovered that a hurricane or tropical storm threatened the region about every five years. Between 1890 and 1991, thirteen hurricanes and ten storms had struck the region. Late fall and winter storms are another potential threat.

Sources consulted: None, since few cultural institutions were engaged in emergency planning at the time

Potential natural hazards faced: Floods, fires, and storms, ranging from summer hurricanes to severe blizzards

Emergency plan highlights: The museum's plan consists of 100-plus pages on preparedness and approximately 75 pages on recovery procedures. It outlines categories of hurricane strength and defines hurricane, severe weather, and tornado warnings. It describes the five-stage alert process (condition alert: possible development of severe weather; condition watch: storm due within forty-eight hours; condition 1: thirty-six hours to a storm; condition 2: twelve to eighteen hours to a storm; and condition 3: storm is imminent) and outlines duties of the fifteen department and response teams during those stages. AM and FM radio and television stations are listed, as are Internet addresses that provide weather information; staff who have received first-aid training; elevations of all buildings above mean low water (MLW); and town, state, and federal authorities.

Comprehensive plans and procedures have been developed for the museum's various departments, and responsibilities have been divided among teams. For example, in the curatorial, exhibition, and interpretive departments, Team A handles formal exhibits, the registrar's office, and all storage areas; Team B is responsible for village exhibits; Team C is in charge of communication among the departments; and Team D is responsible for the interpretive and program areas. The shipyard department handles all ships, small craft, and related areas of concern.

Annual budget for emergency planning and implementation: It is difficult to separate the costs of emergency planning from the US$23-million annual budget. After more than forty years of honing the emergency plan, restocking of emergency supplies and materials, housekeeping, and maintenance are considered the responsibility of individual departments.

Lessons learned in the process of developing an emergency plan:

- Expect emergencies to happen at the most inopportune time.
- Recruit graduate students to analyze and evaluate your emergency plan for academic credit.
- Document all preparedness and response steps with a simple-to-use automatic camera.
- Make emergency planning part of administrators' and employees' job descriptions.
- Do not adopt another institution's emergency plan without doing an analysis of the needs specific to your institution.
- Develop an emergency plan for temporary exhibits as well as for the permanent collection.
- Before an emergency happens, research what should be done to recover various artifacts and put the steps into writing.
- Prepare advance press releases describing your emergency plan.
- Check with your local civil defense officer, or the authority who would be in charge of local recovery, to see how your plan for recovery fits into their plans. The civil authorities are most concerned with safety of lives and property. The materials you have stored for your recovery may be required for use for the public good.
- Encourage input from employees who have lived in hurricane- or tsunami-prone areas and who most likely understand the need to prepare for such disasters.

Building the team: Often the biggest challenge to the team is people's difficulty in relinquishing authority. This is especially true for conservators. At Mystic Seaport Museum, many employees are directly responsible for important components of the collection. Preservation shipyard workers may have labored for years restoring the vessels, yet under extreme emergency conditions, as part of the response procedure, they may be instructed to swamp or scuttle some of the vessels in order to protect them.

How the plan stood up to the test: In 1976, following Hurricane Belle, museum officials realized that they needed to do a much better job detailing what should be done during the recovery phase of any crisis. The museum arranged for two graduate students from the University of Delaware Art Conservation Department to review the emergency research suggestions for the recovery manual. In the process, administrators learned that some of the basic underlying assumptions made in their previous emergency plan had been incorrect. The National Hurricane Center predicted that a category 4 hurricane could hit the New England area within the next five years. The U.S. Army Corps of Engineers and the Federal Emergency Management Agency (FEMA) also predicted that a category 4 hurricane could produce a flood level in the Mystic River estuary of 18.7 feet (5.7 meters). Previously, it had been assumed that a flood would submerge only the first floor of the buildings on the museum property. An 18.7-foot rise in the river would put most two-story buildings entirely underwater. The museum's response plan for floods called for relocating items from the first to second floors in many buildings, which obviously would not have safeguarded them during a major flood. Since then, the plan has been through, and is still going through, many changes.

Words of advice: As flood waters subside and the devastation of a severe disaster confronts staff and the volunteer corps, will the institution's collection be at the forefront of their thoughts? Doubtful. "Their concerns will run in order of family, then maybe their own property, and then possibly the institution's collection," says David Mathieson, supervisor of conservation. "Disasters happen to communities. It is the people within this community whom we work with. If we do not take into consideration the needs of the people around us while creating our plan, our plan will fail."

Case 4 **Seattle Art Museum**

The Seattle Art Museum, Seattle, Washington, showing Jonathan Borofsky's sculpture, *The Hammering Man*. Courtesy of the Seattle Art Museum. Photo: Susan Dirk.

Information for this case was provided by Gail Joice, senior deputy director and registrar of the Seattle Art Museum and an adviser in the development of this book.

Location: Seattle, Washington

Director: Mimi Gardner Gates

Area: 144,000 square feet (13,392 square meters) downtown; 33,800 square feet (3,143.4 square meters) in Volunteer Park

Employees: 120 full-time

Collection: Approximately 22,000 objects, including paintings, sculpture, decorative arts, ethnographic material, prints, photographs, and textiles

Impetus for emergency plan: Loma Prieta earthquake in San Francisco Bay Area, California, October 1989

Sources consulted: Barbara Roberts, hazard mitigation consultant; Jerry Podany, head of antiquities conservation at the J. Paul Getty Museum; and the J. Paul Getty Museum "Emergency Planning Handbook"[7]

Potential natural hazards faced: Earthquakes, volcanic eruptions, windstorms, blizzards

Emergency plan highlights: The ninety-eight-page plan follows the J. Paul Getty Museum model. In addition, it contains sections on emergency procedures for the library and how to deal with volcanic ash. (The Seattle Art Museum's job description for an emergency plan coordinator is shown in Fig. 1, page 34.)

Annual budget for emergency planning and implementation: US$5,300, including first-aid and CPR classes

Lessons learned in the process of developing an emergency plan:

- Use another cultural institution's plan as a model, but do not automatically adopt it without evaluating it according to your institution's needs.
- Appoint several "true believers"—staff members who feel strongly about having an emergency plan—to the planning committee.
- Involve the board of trustees.
- Make sure someone else on staff (other than the director) has access to cash and credit in case of emergency.
- Resource lists also can be used in nonemergencies and should be made available.
- Help employees overcome their fears of a disaster by holding practice response drills so they know how to respond in a real emergency situation.
- Help employees prepare their own homes for an emergency.

Building the team: The museum's emergency planners provided staff with hard hats and on-site earthquake kits and arranged for discounts on first-aid kits. One emergency drill focused on the safety of employees' families. The museum sent two of its emergency planning leaders to San Francisco to visit museums following the devastating 1989 earthquake. The leaders returned home "with the fear of God in them" and the realization that they had to design their plan to be effective, reports Gail Joice, senior deputy director and registrar for the museum.

How the plan stood up to the test: Drills revealed that the museum's public announcement system was not sufficiently audible in all rooms. The emergency plan outlines a "buddy system" in which each employee is responsible for making sure others in his or her working area are safe. In their twice-annual drills, the organizers often test the buddy system by "hiding" a staff member. For one drill, the museum photographer was instructed to stay in his studio during the evacuation. No one checked the studio to make sure it was empty. "Colleagues were feeling sheepish that they hadn't checked for who had been left behind," Joice says. "In the rush to get out, you must stop and think. This drill experience gives us the confidence that this will not happen again."

A real emergency revealed a financial oversight in the plan. In November 1994, the downtown Seattle area experienced a major power outage, which could have placed museum artifacts in need of temperature control at risk. Diesel was low in the emergency generator, and the museum was in danger of running out of fuel. Staff had to arrange emergency delivery of fuel early on a Saturday morning, then realized they did not have cash or access to a company credit card to pay for it. Joice used her personal American Express card. "We've since made arrangements with the diesel company, and they'll accept our charges on company credit," she says. "Now, as senior deputy director, I have a company credit card." The museum also has the emergency generator refueled immediately following routine testing.

Words of advice: Use other museum emergency plans as a starting point. "It is too overwhelming to think about how to do it from scratch," comments Joice.

Notes

1. Adapted from David Liston, Securma Web site report (1997), by permission of site owner Ton Cremers (Web site address: >http://museum-security.org/listtext2.html<).
2. Shelley Bennett, from a telephone conversation with Sharon Jones, 1997.
3. Ibid.
4. Robert Bergman, "Developing a Disaster Plan: The Director's Perspective," in *Emergency Preparedness and Response: Materials Developed from the NIC Seminar, October 17, 1990, Washington, D.C.* (Washington D.C.: National Institute for the Conservation of Cultural Property, 1991), 17. Reprinted with the permission of Heritage Preservation (formerly National Institute for the Conservation of Cultural Property).
5. Since the 1991 workshop, members of the Museums Association of the Caribbean (MAC), including the Barbados Museum and Historical Society, have organized a number of area emergency preparedness and response workshops, and in 1996 signed an agreement with the Caribbean Disaster Emergency Relief Agency (CDERA), whereby MAC coordinates CDERA's activities for regional cultural organizations from its Barbados headquarters.
6. Pierre Pichard, *Emergency Measures and Damage Assessment After an Earthquake* (Paris: Unesco, 1984).
7. J. Paul Getty Museum, "Emergency Planning Handbook" (J. Paul Getty Museum, Malibu, Calif., 1988, photocopy).

Chapter Summary

This chapter

- **reminded you of the potential threats of natural and human-caused disasters;**
- **introduced the emergency preparedness and response process;**
- **outlined the general requirements of the emergency plan; and**
- **presented four case examples of museums that have gone through the planning and testing process.**

In review, an emergency preparedness and response program

- **requires commitment from the director and an investment in staff time and costs;**
- **has benefits that far outweigh the costs; and**
- **will save money in the long run.**

CHAPTER TWO

The Role of the Director

As the director of your institution, you are the guiding force behind the emergency preparedness and response process. Certain duties may be delegated to qualified staff members, but you are ultimately responsible for the development and implementation of the emergency preparedness program and the creation of the emergency plan. You must generate enthusiasm for the program among staff and your institution's board of trustees, motivate staff and maintain their interest in and focus on the effort, provide support to individual departments where needed, collaborate with your counterparts at other institutions and with experts in emergency planning, and guide community outreach efforts.

But where do you start? You can gauge the current level of your institution's emergency preparedness by taking a simple test. The questions shown in Table 4 on the following page address key issues in developing an emergency planning program. The questions are not in any particular order. Administer the test to a few staff members, as well. If you or a member of your staff cannot answer even three of the questions in the affirmative, your institution is not as prepared for an emergency as it should be.

Table 4 **Is Your Institution Adequately Prepared for an Emergency?**

	YES	NO	UNSURE
Are up-to-date emergency telephone numbers and/or addresses posted in central locations?			
Is staff prepared to handle an emergency, including sounding an alarm and using fire extinguishers?			
Is there an emergency supply inventory, and is it up to date?			
Has the backup power supply been tested recently, and does it have adequate fuel? Are flashlights and batteries readily available?			
Have alarm and fire suppression systems been tested recently?			
Are emergency exits accessible? Do all locks have keys nearby?			
Are fire extinguishers fully charged and accessible?			
Is a nonsmoking policy enforced?			
Is electrical wiring in good condition?			
Does a general institutionwide cleanup take place on a semiannual basis, with the entire staff participating?			
Are floors clear of wood shavings, paper, cloth, packing, and other flammable materials?			
Are walkways clear of debris?			
Are drains and gutters clear?			
Are heating and electrical system motors free of dust and clutter?			
Are special precautions put in place during construction, renovation, and repair activities?			
Are up-to-date copies of important documents and records stored off-site?			
Is the insurance provider aware of the emergency plan and of the institution's probable maximum loss?			
Are important collections stored away from windows and pipes?			
Have elevators and automatic door closures been tested regularly in fire-response drills? Are doors clear of obstructions?			
Are pipes and plumbing regularly checked for leaks?			
Has the fire department visited the site lately (i.e., within the last six months)?			
Are your building and grounds up to local safety codes?			
Are you prepared to handle a medical emergency?			
Has staff been given any advice or training in home safety?			
Are overhanging trees cut away from the building?			
Do local police, fire, and security services have copies of your institution's site plan, indicating location of utility mains and various kinds of extinguishers?			
Have arrangements been made for use of off-site storage, deep-freeze facilities, dehumidifiers, and so on, if necessary during an emergency?			

Creating an Emergency Plan

> *We found that the process of planning for disasters has some surprising side benefits. The working groups who develop the plan learn a lot about each other's work. You get real solidarity out of the process. There's the important subliminal message for the staff that the museum is making a conscientious effort to care for its visitors, its collections—and them.*
>
> — John Walsh
> Director
> The J. Paul Getty Museum

Each institution is unique not only by the nature of its collections but also by its facility, its geographical location, its community resources, and its employees and volunteers. In developing your institution's emergency plan, a great deal of time can be saved by examining plans other institutions have implemented (see chapter 1, particularly the case histories). Keep in mind, however, that although such input is valuable, your plan must address your institution's own needs.

An effective emergency preparedness and response program requires the completion of a number of information-gathering and decision-making tasks to be carried out by staff participants. Table 5 on the following page summarizes the major tasks and indicates which staff member or members are involved. The first six tasks are covered in this chapter; cross-references to tasks covered in other chapters are also indicated. Some of the tasks may be shared by more than one person.

Depending on the size of your institution, you may delegate to others most of the planning and implementing duties of the emergency plan. Do not, however, delegate the leadership. You must set the tone and maintain impetus for the process, because many employees prefer to ignore the unpleasant task of thinking about disasters. It is also your responsibility to bring the issue of emergency preparedness to the attention of the institution's trustees and supporters and to local government officials. When necessary, you should be the one to collaborate with your peers at other institutions in order to share ideas and resources.

As director, your six most important tasks are as follows (each is described more fully in this chapter):

Task 1: Set an institutionwide emergency preparedness policy.

Task 2: Designate responsibility and provide support.

Task 3: Involve the institution's trustees.

Task 4: Establish a budget.

Task 5: Contact others for advice and support.

Task 6: Involve the community and the news media.

Table 5 **Principal Tasks in Developing an Emergency Preparedness and Response Plan**

	Action	• Responsible position / body ✲ Relevant chapter(s)
Goals / priorities / scope	Set a policy that identifies the goals and priorities of the planning process and defines its scope.	• Director ✲ Chapter 2
EPM / EPC responsibilities	Appoint an emergency preparedness manager (EPM) and create an emergency preparedness committee (EPC) that includes representatives from key departments.	• Director/EPM ✲ Chapters 2–3
Trustees' commitment	Develop the initial assessment of risks and vulnerablilities. Present it to the board of trustees. Secure the board's commitment to the process.	• Director ✲ Chapter 2
Budget	Establish a budget for developing and implementing the preparedness and prevention activitites.	• Director ✲ Chapter 2
Staff involvement	Involve all staff in the emergency preparedness program.	• Director/EPC/preparedness teams ✲ Chapters 4–5
Agency/institution involvement	Contact local, regional, and national emergency agencies and other cultural institutions or organizations that may be of assisstance.	• Director/EPC/preparedness teams ✲ Chapters 2–4, 6–9
Community involvement	Involve the community, including the institution's neighbors, local firefighters, and the news media.	• Director/EPC/preparedness teams ✲ Chapters 2–9
Team / leader responsibilities	Appoint departmental preparedness teams and team leaders and equip them with the necessary tools and information.	• EPM/EPC ✲ Chapters 3, 6–9
Hazards	Identify the potential natural and human-caused hazards specific to the area.	• EPC ✲ Chapters 3, 6–9
Assets / vulnerabilities	Identify assets and the vulnerability of the institution, including collections, people, infrastructure, and administrative records.	• EPC/preparedness teams ✲ Chapters 3, 6–9
Coordinator responsibilities	Appoint and emergency response coordinator (ERC) and a communications coordinator if necessary.	• Director/EPM ✲ Chapters 2–3
Chain of command	Identify the chain of command and response teams, with a contingency list of successors.	• EPM/EPC preparedness teams ✲ Chapters 2–3, 6–9
Prevention / preparedness	Implement preventive and preparedness measures for staff, the public, the collections, and other assets.	• EPC/ERC/preparedness teams ✲ Chapters 3, 6–9
Response	Develop response measures, such as evacuation procedures, notification of chain of command, and setting up a temporary base of operation.	• EPC/ERC/preparedness teams ✲ Chapters 3, 6–9
Facts/maps/supplies and equipment	Compile fact sheets, maps, and lists of contacts, and stock emergency supplies and equipment.	• EPC/ preparedness teams ✲ Chapters 6–9
Recovery	Develop a plan for recovering from the emergency and restoring normal operations.	• EPC/preparedness teams ✲ Chapters 3, 6–9
Emergency plan	Develop the emergency plan and write the emergency plan handbook. Review and update all procedures on a regular basis.	• EPC ✲ Chapters 3, 5
Drills / training	Establish routines to keep the plan viable. Train staff in emergency response activities. Conduct drills annually. Evaluate results.	• EPC/preparedness teams ✲ Chapters 5, 6–9

Task 1

Set an institutionwide emergency preparedness policy

Our director has taken emergency planning very seriously. He has made staff time and resources available and provided direction to the entire staff. He has made it clear that while we may get a laugh out of our annual emergency drills, this is serious business.

— Brian Considine
Conservator of decorative arts and sculpture
The J. Paul Getty Museum

No one wants to think about the possibility that he or she may be caught in a dangerous situation. People become uncomfortable and wish to change the subject whenever it comes up. Your employees are no different.

For their own safety and for the well-being of the institution, your staff must be motivated to take emergency preparedness seriously. To do this, you should put into writing the institution's commitment to emergency preparedness and describe the extent to which the plan will be developed. This commitment must start with you and be impressed upon all levels of staff, including part-time employees and volunteers. The policy should identify the goals of the process and establish priorities. The policy should also

- explain why emergency preparedness and response planning is important to the institution;
- state that the safety of visitors and staff is the primary goal;
- state that the process will address the buildings, preservation of the collections and equipment, security of vital records, and restoration of normal activity;
- identify the position or group responsible for implementing the emergency response plan; and
- encourage staff members to familiarize themselves with the emergency plan, to become involved in the process, and to participate in training and drilling exercises.

The policy should be posted for employees to read and be published as the introduction to the emergency plan handbook, a written compilation of procedures, contact telephone numbers, and other information that is distributed to all staff and placed in strategic locations for quick reference during a disaster.

Questions to Consider

- **Is the collection more important than the building?**
- **Can the collection itself be prioritized?**
- **What are the institution's moral and legal obligations toward the safety of staff, visitors, and the collections?**
- **Keeping in mind the types of emergencies that can be expected and the size of your institution, what type of emergency response plan is best?**
- **How serious must an emergency be to activate the plan, and who will make that decision—for example, you or the emergency response coordinator (or ERC alternate in the chain of command at that time)?**

Task 2

Designate responsibility and provide support

The challenge for the director is going to be delegating to the right person or groups of people the job of organizing the staff in this coordinated effort to address the problem. Once the director is sold on it, he or she has to sell the entire staff and has to maintain a certain level of interest in the plan. Everything else can be delegated.

— Jerry Podany
Head of antiquities conservation
The J. Paul Getty Museum

Every staff member will be affected by an emergency. Therefore, all staff must be involved at some level in the emergency preparedness and response planning process and must work together, sharing information, collaborating on projects, and identifying risks and priorities. This team approach is crucial. Collaboration and cooperation speed up the process and promote a synergy that enhances the overall emergency planning effort, as well as staff morale.

You will need to appoint a broad-based emergency preparedness committee (EPC) to oversee the development and implementation of the emergency preparedness and response program and report its findings and assessments to you. This committee should include senior administrators and representatives from every key department. Depending on the size and focus of your institution, these departments can include some or all of the following: administration, computer systems, collections, conservation, security, buildings and maintenance, public relations, library, and volunteer resources.

Experts in corporate team building recommend selecting members based on skill and potential, not personality. Three categories of skills are key to the success of the committee: technical and functional, problem solving, and interpersonal. Include at least a few "true believers"—employees who believe strongly in emergency preparedness—and, whenever possible, employees who have previous experience in emergency preparedness or related areas.

To remain focused on its goals, the committee needs an emergency preparedness manager (EPM). If you wish, you may serve in this capacity. A strong leader, the EPM must have the tenacity to guide the committee through the long and sometimes tedious process of creating an emergency plan. The EPM should have solid administrative skills, be familiar with the institution's various departments and collections, and have knowledge of all potential threats and disasters. She or he also should keep you up to date on the committee's progress and oversee much of the community outreach effort (see chapter 3, pages 47–52, for more information).

Next, an emergency response coordinator (ERC) should be selected. The ERC would take charge in an actual emergency, coordinating all response and recovery activities. This position requires calmness in the face of calamity and a thorough understanding of the emergency plan. The ERC should be given broad authority in the event of a disaster, such as the ability to dispense petty cash or authorize expenditures.

It is preferable to appoint one person who has the skills to serve as both EPM and ERC. After you designate an EPM, determine whether he or she also qualifies as an ERC. If he or she does not qualify or does not wish to take on both responsibilities, you and the EPM can work together to appoint an ERC, or you can delegate that task to the emergency preparedness committee.

You should also appoint and train at least one backup person for the EPM and ERC roles. In fact, any staff member may find himself or herself in the position of being the first person on-site to handle an emergency and thus should know what is expected; that is why involvement of all staff in the planning process is crucial.

The job description of the response coordination position (in this case, called the emergency plan coordinator) at the Seattle Art Museum, shown in Figure 1 on the following page, provides an example of the duties of this very important position.

A Team Effort

The EPC may delegate certain phases of the plan—such as recovery efforts or certain planning tasks—to departmental teams. For example, during the planning stages, one team may focus on the needs, priorities, vulnerabilities, and assets of the museum's collections, while another focuses on the building and equipment. The teams gather information and make assessments that are submitted to the EPC, which in turn submits a report to you, the director.

This book has been designed to support a departmental team approach to emergency preparedness and response. Chapters 6–9 contain information specific to safety and security, collections, buildings and maintenance, and administration and records, respectively. These chapters are distributed to each department, but all the information should be integrated into the emergency plan, because the emergency response and recovery teams will have to perform many of the procedures simultaneously.

EMERGENCY PLAN COORDINATOR

RESPONSIBILITIES: Assesses the need for the Emergency Plan and declares it to be operational when necessary; directs all operations while museum is in emergency status; continues to assess the emergency accurately--its progress, potential damage, and responses--and commands the staff based on these assessments; determines cessation of state of emergency.

LINE OF SUCCESSION

1. Director
2. Associate Director/Museum Services
3. Associate Director/Curatorial
4. Chief of Security

ACTION CHECKLIST:

____ Assesses incident and declares Emergency Plan is in effect; must evaluate any incident which may become a serious emergency.

____ Quickly gathers information and develops initial strategy based on personnel available and the nature of the emergency.

____ Takes immediate steps to assign appropriate staff to reduce or eliminate risk (for example: stop the flow of water, unclog the drain, etc.).

____ Immediately appoints Collections, Protective Services, Personnel and Media Managers, using attached work sheet and Emergency Plan Organizational Chart.

____ Receives the Emergency Plan Coordinator's Supply Kit and a portable radio from Protective Services.

____ Establishes a command post and clearly announces its location and who is in charge.

____ Arranges for chronological documentation of significant events, using an assistant if possible.

____ Receives and evaluates reports from all subordinates.

____ When practical, informs Chairman and President of the Board of Trustees.

____ Ensures the protection of personnel and assets during the emergency.

____ Authorizes mutual aid efforts when appropriate. (See Fact Sheet on Local Museums)

EMERGENCY PLAN COORDINATOR

____

____ ESPONSIBILITIES: Assesses the need for the Emergency Plan and declares
____ hen necessary; directs all operations while museum is in emergency status; co
____ ic emergency accurately--its progress, potential damage, and responses--a
____ ased on these assessments; determines cessation of state of emergency.

LINE OF SUCCESSION

1. Director
2. Associate Director/Museum Services
3. Associate Director/Curatorial
4. Chief of Security

Figure 1 Job description of the emergency plan coordinator from the Seattle Art Museum's *Emergency Planning Handbook*.

Each departmental team consists of a preparedness team and a response team (some members may belong to both). The preparedness team will thoroughly assess the safety and security procedures currently in place in its respective department, identify where the institution is vulnerable, and produce two reports for the committee summarizing its findings:

Report 1 is a vulnerability and asset analysis that also recommends preparedness and protection measures—for example, what should be done to prevent damage to institution property, structures, collections, and functions and to reduce injury to staff or visitors in the event of an emergency.

Report 2 outlines the role of the departmental response teams during an emergency. For example, the safety and security team leader may be responsible for evacuating people, while a member of the collections response team is assigned to document object damage. The report should include a list of necessary equipment and supplies needed and a list of hazardous materials stored on-site.

Questions to Consider

- **Do you have a staff member qualified to serve as both EPM and ERC?**
- **Do you have a staff large enough to justify two people overseeing the process?**
- **What level of support should you and the trustees offer the EPM and the ERC?**
- **What will be the chain of command if the primary appointees are unable to serve during an emergency?**
- **How much authority should you give the EPM and the ERC to address conflicts between existing policy and the emergency plan?**
- **Should you set a time line for the planning process?**
- **Who are the most qualified members of your staff to oversee the survey of collections, records, equipment, and other assets?**
- **Who among your staff are enthusiastic about emergency preparedness?**
- **Who are unenthusiastic but must be nurtured and brought into the process as key players? How can you motivate and include them?**
- **Who are knowledgeable about first aid, security, or emergency procedures?**
- **Who among your staff are good team players?**

Task 3

Involve the institution's trustees

Early in the planning process, it is helpful to involve your board of trustees, which holds fiduciary responsibilities for the institution. As community leaders, they can assist in obtaining permission for the use of additional resources, such as people, equipment, and funds, at the time of a disaster. When the EPC has provided you with an initial risk-and-vulnerability assessment, present it to the trustees. It is important to make them aware of potential threats to staff and visitors and to the institution's assets, and to make sure they are committed to the prevention and preparedness efforts.

In making your presentation to the trustees, articulate clearly what you wish to achieve from the emergency preparedness and response program. Ask the trustees to discuss how much the institution is willing to compromise. Ask them also to take a role in the emergency preparedness and response program. Perhaps one of the trustees is a board member for another public or private institution that has an emergency plan. Trustees could also take a leadership role in any fund-raising efforts to support the program. Remind them of the institution's moral obligations to prevent or mitigate the effects of potential threats that the emergency preparedness committee identifies. You might point out that the major cause of loss to cultural institutions is from human impact—occurring during renovations or reconstruction—and therefore can be prevented. Refer to Table 2 (pages 10–11) to quote figures.

Questions to Consider

- **Would the board of trustees want to take on emergency preparedness in their next development campaign?**
- **Should they be involved in the annual drills and other preparedness training exercises?**
- **How will the trustees and the community react if you do not bring the potential threats to their attention before disaster strikes? Would they feel differently if a relative were visiting the institution when an emergency occurred?**
- **How can the trustees personally assist in any response or recovery process?**

Task 4

Establish a budget

Initially we spent very little money. We were more concerned with recognizing the resources that we had on hand. The crucial thing we needed to put into the budget was a line item for the emergency drill each year.

— Alissandra Cummins
Director
Barbados Museum and Historical Society

As stated in chapter 1, a successful preparedness and response program requires a substantial commitment of staff time and financial resources. The

extent of the latter obviously will depend on many factors, including the size and type of the institution, its financial resources, the potential hazards, and so on. No major financial considerations should be made until the EPC completes its assessment of the institution's vulnerabilities. The vulnerability analysis will identify the potential hazards and therefore the priorities in terms of prevention and preparedness efforts. This analysis should reflect the fact that very few institutions are not at risk from the major cause of loss and destruction in cultural institutions—that of fire during renovations or construction activities.

One of the EPC's first steps in the preparedness and response process should be to develop a draft budget that will be revised according to the hazards identified and again as the preparedness and preventive measures are implemented. Prevention will be the most cost-effective phase of the preparedness process. Again, implementation steps will be based on the identified hazards, and the available funds allocated accordingly. Budget allocation in this area is a very important and very difficult task; decisions made at this point may have enormous implications in the event of an emergency. An example is the decision not to install fire detectors in the attic of the Franklin D. Roosevelt Historic House in Hyde Park, New York, during installation of a fire detection system, thus saving US$2,500. A subsequent fire, caused by faulty wiring, resulted in more than US$2 million in restoration costs.

Once the plan is in place, annual budget costs should be minimal—these range from US$2,500 to $5,300 in the case histories in chapter 1. The major cost is for staff time—for example, to maintain first-aid and CPR certification, and for the annual drill. Gail Joice, senior deputy director and registrar of the Seattle Art Museum, advises that it is important to also include maintenance of the emergency preparedness plan in the institution's five- or ten-year budget projection. One of the major staff costs for the Seattle Art Museum is the inclusion of all security staff in training activities, including the overtime costs for those members on weekend shifts to participate in weekday training sessions and the costs of repeat sessions to accommodate various shifts.

The annual budget should include maintaining response equipment and supplies. At the Mystic Seaport Museum, each department is responsible for including these costs in their annual department budget. However, unless an emergency situation occurs during the year to deplete supplies, maintenance costs should be minimal. In the initial process of developing preparedness and response supplies and equipment, it may be surprising how much of these already are on hand in the various departments of the institution.

The one other major financial consideration is that of recovery in the event of a major disaster. As Carl Nelson warns, "A natural disaster may create a financial one. If possible, build up reserves in every budget. Disruption of business in subsequent months—and years—can cause major financial damage."[1]

Remember that many significant steps in the prevention and preparedness process can be done at minimal cost (see "Immediate Steps to Take," pages 40–41). Remember also the board of trustees, local businesses, and the community, in terms of fund-raising for your institution's emergency preparedness and response program.

Questions to Consider

- **What will be your institutional liability for expensive traveling exhibits if an emergency plan is not in place?**
- **Are grants available to support your emergency preparedness efforts?**
- **Are major philanthropists willing to donate funds to purchase necessary equipment or to underwrite a needed capital expense?**

Task 5

Contact others for advice and support

You and your staff do not, and should not, have to embark on this journey to emergency preparedness alone. During the 1990s—the decade of natural disaster reduction, as designated by the United Nations—most countries have established committees to create national emergency response plans. These plans, however, may not affect individual institutions, but the committees themselves can be a tremendous resource. An important development during this decade is the founding in 1996 of the International Committee of the Blue Shield (ICBS) by four nongovernmental organizations: the International Council of Archives (ICA), the International Council of Museums (ICOM), the International Council on Monuments and Sites (ICOMOS), and the International Federation of Library Associations and Institutions (IFLA). The ICBS members are working together to organize risk preparedness internationally and to provide a network of expertise for disaster response. Many countries are forming national committees of ICBS. Furthermore, the committees may have passed along advice, materials, and other information to local organizations and other knowledgeable sources. These contacts can save you time and money.

Take the time to locate and get in touch with experts in your community, nationally and internationally.

- Ask local emergency officials for referrals.
- Talk to colleagues at nearby museums, art galleries, and libraries.
- Contact earthquake, flood, or other disaster researchers at local universities.
- Talk to authors of emergency plans for local schools, libraries, and government buildings.
- Contact national and international organizations of museum professionals, such as directors, curators, security, and conservators, and associations of other related professionals, such as architects and engineers.
- Consider using local fire protection agencies as a resource.

If no conservator is on your staff, the EPC should consult conservators at other cultural institutions, in private practice, or at regional or national conservation centers regarding preventive and response procedures for your institution's collection.

The "Directory of Selected Organizations" at the end of this book contains a number of contacts that may be of help. This is only a sampling of what is available. Many of the organizations listed have Web sites that provide links to numerous other relevant organizations.

Task 6

Involve the community and the news media

The EPM will do most of the community outreach, but, as director, you are the public figure representing your institution. You have access to the more influential members of the community. You may want to establish a personal rapport with the local fire and police chiefs, for example. Include them on the guest list for special events, and invite them to tour the facility and advise on preparedness and response issues. If you are seen as publicly pushing the emergency preparedness process, community leaders are more likely to get behind the effort.

You also will need to decide in advance of an emergency what role you and the board of trustees will play during and after an emergency. A spokesperson should be designated to handle the media. Depending on the size of your institution, there may be a need to appoint a communications coordinator, who can deal with the media and take on a number of other responsibilities. Discuss this with the EPM. See chapter 3, task 4 (page 52), and chapter 4 for details on the role and responsibilities of a communications coordinator.

Questions to Consider

- **Have you met community leaders in the neighborhood? Do you cultivate their interest in your institution?**
- **Have you met the regional and state disaster officials? Have they toured the institution? Do they know what is in the collection? Are they aware of your interest in emergency preparedness?**
- **Are there any relevant regional, state, or national boards, task forces, or committees that you should join?**
- **Can you realistically handle media inquiries during an emergency? During the recovery phase? In what situations would the media outreach be more effective with your name and face attached to the message?**

Immediate Steps to Take

A comprehensive emergency preparedness and response program can seem like a daunting process; however, there are plenty of tasks you and your staff can complete as first steps in the process that will take no more than a month and will greatly reduce the risks without greatly increasing the budget. Some of these activities—for example, moving flammable materials away from heat sources inside the building and clearing dry brush away from outside the building—can prevent a disaster. The following are some important steps to take.[2]

Establish a chain of command. Assign basic responsibilities among staff—for instance, who is in charge of evacuation, who is in charge of acquiring emergency supplies. Prepare a list of these positions, the designated persons, and their home telephone numbers and addresses. Reproduce the list on laminated cards and distribute to staff.

Practice good housekeeping. Make sure all areas (hallways, offices, storage closets) are free of clutter that might fuel a fire. Use common sense; keep collections off the floor in storage areas and breakable objects away from edges of shelves.

Lead a cleanup effort. Remove all unnecessary detritus from around the building, clean gutters and drains, and so forth.

Collect emergency numbers and addresses. Post emergency telephone numbers and, with their permission, home addresses of staff, as well as telephone numbers of fire and police departments.

Gather supplies. Identify available supplies that can be used in emergencies, such as fire extinguishers, first-aid kits, food supplies, flashlights, paper goods, hand carts, battery-powered radios, cameras, shovels, mops, brooms, polyethylene bags, crowbars, lumber, and buckets.

Prepare records. Make a duplicate set of important documents (building plans, personnel and administration records, collections inventories, etc.) and store this set off-site. Remember that access may be needed on a twenty-four-hour basis.

Make contact lists. Compile a list of local sources of supplies and services that might be needed in an emergency, such as storage for the collection if it must be relocated. Include names, addresses, and telephone numbers of building contractors your institution has used recently.

Compile fact sheets. Create step-by-step outlines of specific emergency-related duties, such as turning on the emergency generator or shutting off the gas, water, and electricity.

Duplicate keys. Make copies of necessary keys and store them in a safe and separate location.

Investigate free services. Contact the Red Cross, the local fire department, and your insurance agent; they may provide training in first aid and emergency response and/or inspections and advice services.

Network. Develop a relationship with emergency preparedness organizations within your community and with peers at other cultural institutions.

Make money accessible. Set up a credit card account with key staff members as cardholders for emergency purchases. Keep a resource of petty cash on hand for emergencies.

Notes

1. Carl L. Nelson, *Protecting the Past from Natural Disasters* (Washington, D.C.: Preservation Press, National Trust for Historic Preservation, 1991), 78.
2. Adapted from Wilbur Faulk, "Organizing, Preparing, Testing, and Revising an Emergency Planning Program" (J. Paul Getty Trust, Santa Monica, Calif., February 1993, typescript).

Chapter Summary

This chapter explained the emergency preparedness and response program and focused on the six areas where you, as director, must take leadership.

In review, the director must

- **set a policy on emergency preparedness and response planning;**
- **designate an emergency preparedness manager and emergency response coordinator to coordinate the team effort, and select alternates for these positions;**
- **convince the board of trustees to support the emergency preparedness and response process and program;**
- **establish a budget to support the program;**
- **network with experts and colleagues at other cultural institutions; and**
- **involve the community and news media.**

Continue to Part II if you are also serving as the EPM. If you are not, give the designated EPM a copy of this book and schedule a meeting to discuss its contents and your expectations.

The disaster contingency planner must transcend the comfortable world of the office and situate him or herself in the frenzied, panic-stricken environment that prevails when disaster strikes. This person must think the unthinkable, foresee the unforeseen, and expect the unexpected.

— John P. Barton
and Johanna G. Wellheiser
An Ounce of Prevention

Part II

For the Emergency Preparedness Manager

Overview

This part, which consists of chapters 3–5, is designed to serve as a resource for the emergency preparedness manager (EPM). The EPM is designated by the director to head the emergency preparedness committee (EPC) and oversee development and implementation of the emergency preparedness and response program.

The EPM's primary responsibility is guiding the committee through the information-gathering process that leads to the development of a written emergency plan. The EPM also may be expected to assume the role of emergency response coordinator (ERC), who is in charge of response efforts during an emergency. At least one backup EPM and ERC (or more if desired) should be appointed and trained in case the designated EPM/ERC cannot perform his or her duties or is unavailable.

Although Part II refers throughout to one primary designated EPM, those in the chain of command for the position should be thoroughly familiar with the role of the EPM.

Chapter 3 presents an overview of the emergency preparedness and response program. This chapter also explains the role of the EPM and the EPC in the emergency preparedness and response program; outlines what the EPM must do to get the committee to work as effectively as possible; emphasizes the importance of teamwork and gives strategies for building an effective team; and guides the EPC through the tasks needed to compile an emergency plan and produce the emergency plan handbook.

Chapter 4 discusses the role of communications—internal and external—both during the planning process and in actual emergencies. It includes information on team communications, working with the media, and equipment considerations. Intended as a resource for the EPM, the EPC, and the communications coordinator, the chapter also explains the role of communication in the emergency preparedness and response process; suggests ways to ensure good communication, internally as well as externally; explains the role of the communications coordinator during an emergency; and suggests ways of dealing with the media, including how to write news releases.

Chapter 5 helps the EPM, the EPC, and the departmental preparedness teams develop a training program and organize emergency drills. It outlines a variety of activities that prepare staff for emergencies. The chapter also lists training exercises that build skills and generate interest and enthusiasm; suggests a variety of protection- or response-related training activities; suggests guidelines for building effective teams and effective emergency preparedness and response training exercises; and helps the EPC plan meaningful, institution-wide drills.

The "Suggested Exercises" and "Questions to Consider" that appear throughout will help you apply the material presented in these chapters to the specific requirements of your institution.

CHAPTER THREE

The Role of the Emergency Preparedness Manager and the Emergency Preparedness Committee

Making Emergency Preparedness Happen

> *The disaster contingency planner must transcend the comfortable world of the office and situate him or herself in the frenzied, panic-stricken environment that prevails when disaster strikes. This person must think the unthinkable, foresee the unforeseen, and expect the unexpected. In addition, the planner must take into account the foibles of human nature, particularly the foolhardiness of those who rely on fail-safe systems that can, and do, go wrong. Finally, he or she must be able to select people who will be able, in the event of a disaster, to quickly and efficiently put the plan into operation. Unfortunately, it takes a disaster to reveal those very people who perform well under adverse conditions.*[1]
>
> — John P. Barton and Johanna G. Wellheiser
> *An Ounce of Prevention*

The director of your institution has just informed you that he or she wants to launch an emergency preparedness and response program, and you have been asked to lead a cross-departmental effort to develop a comprehensive emergency plan. Now what? If you have never been involved in emergency planning, you may not know where to start. This chapter is designed to help you lead the emergency preparedness committee (EPC) through the emergency preparedness and response planning process and gather the information needed to develop a written emergency plan.

Bear in mind, however, that emergency preparedness does not happen overnight; it is an evolutionary process. Eighteen months to two years is not an unreasonable time frame for development and implementation of an effective program.

As you address issues related to emergency preparedness and response, you may have a change in attitude. You may confront your deep-seated fears of

being caught in an earthquake or a tornado, or you may realize that you can make a difference in the safety and protection of historic objects. Changes in others may be seen as well. You and your colleagues may bond together as a team, and staff members may feel more empowered. Eventually, everyone will feel safer at work and may begin applying this newly gained expertise to ensure the safety of family members at home.

Review chapters 1 and 2 before proceeding. Be sure to review Table 3 in chapter 1 and complete the test in chapter 2 (Table 4).

The Role of the Emergency Preparedness Manager

As EPM, you are the hands-on motivator. The director should help create an environment in which emergency preparedness and response are taken seriously, but you are the person who will make it happen. To do so, you need to

- lead the EPC through the process of gathering information needed to write an emergency plan;
- work with the director to designate an emergency response coordinator (ERC)—which could be yourself—and alternates for the position (the ERC is responsible for overseeing the response efforts for your institution in the event of an emergency);
- work with the EPC to launch a training program that helps staff members address fears associated with emergency preparedness and provides them with the skills they need in a crisis;
- keep the director and board of trustees up to date on the committee's progress; and
- involve outside service agencies, such as the Red Cross, local police and fire departments, and the civil defense department.

You probably will be handling your duties as EPM in addition to your regular job responsibilities. Make your role as EPM a priority: Human lives, as well as irreplaceable cultural property, are at stake.

As chair of the EPC, you are in charge of the following four tasks (these tasks and the steps involved in each—when applicable—are described in the following pages):

Task 1: Contact others for advice and support.

Task 2: Designate responsibility and provide support.

Task 3: Appoint departmental preparedness teams.

Task 4: Appoint a communications coordinator.

Task 1

Contact others for advice and support

Local emergency service agencies can help you build an emergency plan that complements other plans already in place in the community. You need to know realistically how much assistance your institution could receive in the event of a wide-scale emergency. Information and support provided by these agencies can significantly reduce the amount of time and resources necessary for developing the emergency plan. In addition, local agencies should be aware of the institution's needs and planning efforts so they can provide the most efficient support in a crisis. Remember that hospitals, schools, and general population needs will be met first by city, state, and national agencies in an emergency situation. The following emergency service agencies may be consulted:

- civil defense department
- emergency management agency
- local fire department
- hospital/ambulance authorities
- military
- police department
- Red Cross and other relief agencies

Once established, contact should be maintained throughout the planning process and after the emergency plan is in effect, so the plan can be kept up to date.

Questions to Consider

- **Do other institutions in the region have emergency plans? Are they willing to share them with you?**
- **Who in the community is knowledgeable about emergency preparedness and could serve as a resource?**
- **What state, regional, and local emergency agencies should be contacted before, during, and after a disaster, and how can a solid relationship be developed beforehand with these agencies?**
- **Should outside emergency agencies have access to your institution's floor plans?**

Task 2

Designate responsibility and provide support

Step 1

Build an effective committee

As explained in chapter 2, the EPC should include senior administrators and representatives of most, if not all, departments. These departments may include any or all of the following, depending on the size of the institution: administration, collections, conservation, security, buildings and maintenance, public relations, library, and volunteer resources. The director will appoint the members. As emergency preparedness manager, you will act as committee chair. To create an effective committee, keep the following steps in mind:

- Set a regular schedule for meetings; anticipate obstacles, such as the demands of the EPC members' regular job responsiblities; and set realistic goals, objectives, and deadlines. Be careful not to try to take on too many of these tasks at once, particularly in the early stages of the preparedness process.
- Start with a few immediate performance-oriented tasks and goals to unite the group; for example, compile a list of department staff home telephone numbers and addresses.
- Set clear rules for EPC members regarding such policies as attendance, confidentiality, and constructive confrontation.
- Give committee members specific deadlines for assignments, and record the deadlines in the agenda minutes.
- Develop a system of publicizing internally the progress of the emergency preparedness and response program. For example, photos of a drill might be displayed on an employee bulletin board. Discuss this system at a full staff meeting.
- Exploit the power of positive feedback, recognition, and reward.[2]

See chapter 5, "Training," for more team-building strategies.

Step 2

Generate the essential documents

As a basic tool, the committee should produce the following documents in the early stages of the emergency preparedness and response program:

- A statement of purpose, including goals and objectives, of the emergency preparedness and response program. A copy of the institution's emergency preparedness policy developed by the director is later given to the departmental preparedness teams.
- A contact list of key staff, including job titles, roles in the emergency plan, and office and home phone numbers and addresses. This list

Suggested Exercise

Begin one meeting with an emergency scenario. Describe a situation—for example: a group of schoolchildren are in a second-story exhibit gallery when a fire breaks out and blocks the stairwell; or, a water main breaks under the floor of the storage room. Solicit and discuss responses.

Six months later, present the same scenario again, and assess whether committee members' responses have improved.

should be arranged in the order in which the persons are to be contacted.
- An organizational chart that contains descriptions of the duties and responsibilities of the committee members and the staff.
- A draft budget for the emergency preparedness and response program. This can be revised as the planning progresses and vulnerabilities are identified.

Task 3

Appoint departmental preparedness teams

All staff, from custodians to top administrators, must be included in the process at some point. You never know who might be in the building during a crisis; therefore, as many people as possible should be trained. Many institutions have created teams to carry out preparedness measures and to lead emergency response and recovery activities, such as relocation and/or salvage of objects. The team approach also helps maximize the use of specialized skills.

In this book, the EPC is the central coordinating team. At certain stages of the planning process, you will probably want departmental teams to investigate issues related to specific sections of the institution, such as collections or records. For example, during the planning stages, one team may focus on the protection of staff and the public; another on the needs, priorities, vulnerabilities, and assets of the collections; and a third on the building and equipment.

This book has been designed to support a departmental team approach to emergency preparedness and response. Chapters 6–9 contain information specific to safety and security, collections, buildings and maintenance, and administration and records. The number and type of teams depend on the organization of your institution. Though each department team generates and presents its information independently, all information collected needs to be integrated into the emergency plan.

As detailed in chapters 6–9, each departmental preparedness team will produce two reports for the EPC:

Report 1 is a vulnerability and asset analysis that also recommends preparedness and protection measures—for example, what should be done to prevent damage to institution property, structures, and collections, and impairment to services and to reduce injury to staff or visitors in the event of an emergency.

Report 2 outlines the role of the departmental response teams during an emergency. For example, the administration and records team will be responsible for providing access to temporary funds. The response team may include some or all of the preparedness team members. The report should include a list of relevant contacts, equipment and supplies needed, and a list of any hazardous materials stored on-site.

Figure 2 depicts the team approach to creating the institution's emergency plan. The diagram shows the chain of command, from the director to the EPM to the EPC to the departmental teams. Each departmental team consists of a preparedness team and a response team, each of which gathers data on

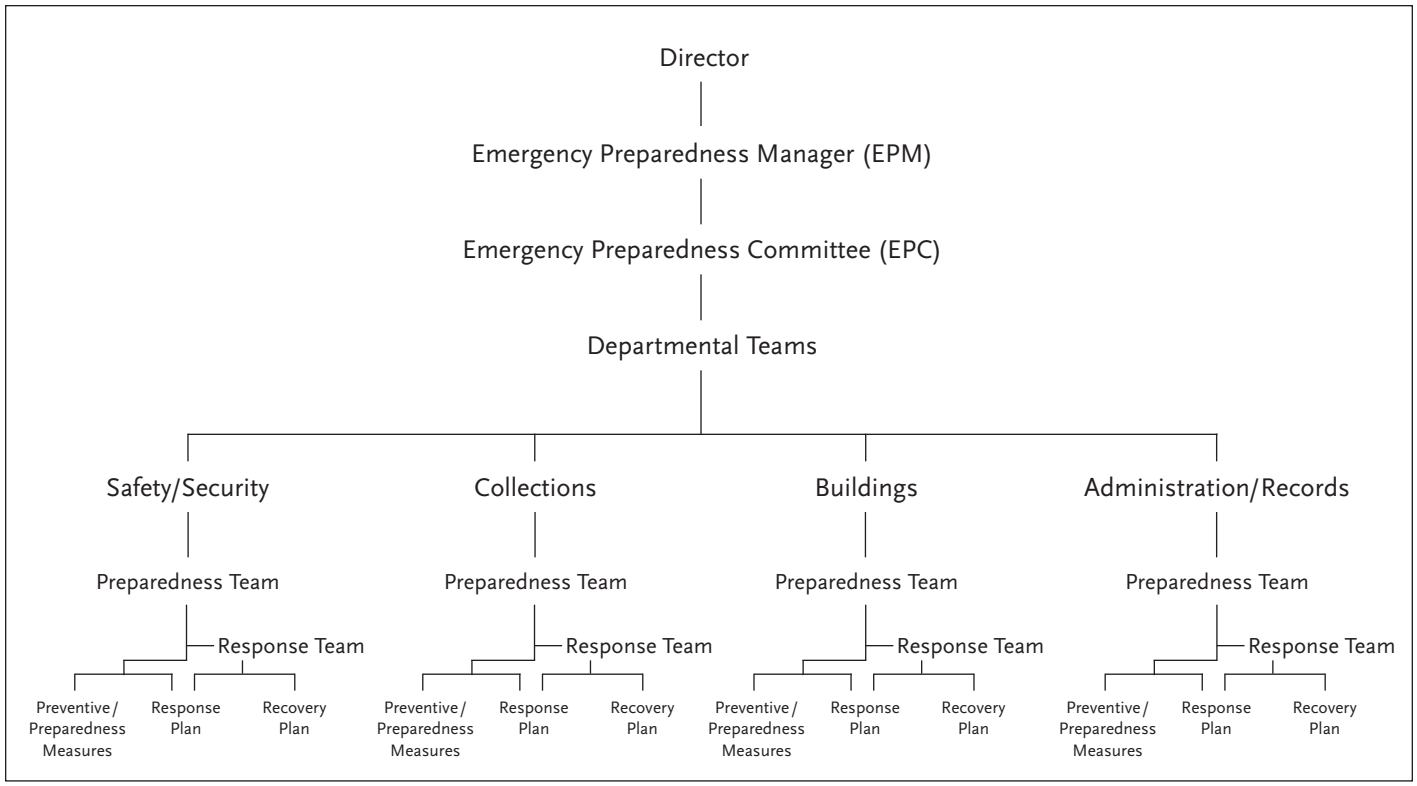


Figure 2 Organizational chart showing chain of command and division of departmental teams with their respective duties.

preventive/preparedness measures, response procedures, and recovery procedures. This information is given to the EPC to be incorporated into the emergency plan.

In smaller institutions, a departmental team may consist of only a few people. Appendix A shows how the Barbados Museum and Historical Society, with a staff of twenty-six, organized their teams for response and recovery situations. When putting together teams, keep these guidelines in mind:

- Each team should have a leader and at least one backup leader. Five is the optimum number of members for each team; communications may break down in a larger group.
- Each team member should be assigned responsibilities and be capable of carrying out those responsibilities.
- Special emphasis should be placed on training members to handle their designated responsibilities.

Do not overlook other personnel who are on hand regularly, such as guides, volunteers, contract security officers, and contract laborers. These individuals may be able to provide support in any emergency response operation. By becoming involved, they will also be better informed in the event of an emergency. Neighbors may also be a resource, if willing and trained.

Task 4

Appoint a communications coordinator

Most institutions will appoint a communications coordinator—and, as with the other key positions, a number of alternates—to answer all questions, formal and casual; to offer information to the public; and to obtain external information as needed during an emergency. Having a communications coordinator significantly reduces the confusion that often arises during and after emergencies and improves the consistency and accuracy of released information. The first choice for this position is usually the public relations director, who is familiar with all aspects of the institution's functions and is accustomed to dealing with the media. Smaller institutions might delegate communication responsibilities to the EPM, the director, or a media-savvy member of the board of trustees.

The communications coordinator works closely with the director during an emergency, reporting directly to the ERC. The plan should instruct employees to refer all media questions to the communications coordinator or designated spokesperson. At the same time, a high priority should be placed on keeping the coordinator fully informed and up to date on events.

In an emergency, the key responsibilities of the communications coordinator are to perform or supervise the following:

- Gather and coordinate information for dissemination through the media.
- Gather and disseminate information from external sources, such as the extent of the emergency that is not localized to the institution.
- Assess accuracy of information.
- Coordinate news releases with investigating agencies, such as fire and police departments and civil defense.
- Keep staff, visitors, and the community informed.
- Be accessible to the media and maintain control of their activities on-site following an emergency.
- Keep a log of all media information that has been released (what was released, when, and to whom).
- Refrain from making decisions or stating opinions on controversial or questionable topics unless these have been previously discussed with the director.
- Solicit public support.

See chapter 4 for more details about communications-related issues.

The Role of the Emergency Preparedness Committee

The responsibilities of the EPC include the following:

Task 1: Assess the hazards.

Task 2: Identify assets and vulnerabilities.

Task 3: Implement preventive measures.

Task 4: Implement preparedness measures.

Task 5: Develop the response plan.

Task 6: Develop recovery procedures.

Task 7: Write the emergency plan.

Task 1
Assess the hazards

Step 1
Identify potential emergencies

The committee's first step is to prepare a report identifying what natural or human-caused emergencies may threaten the institution. The characteristics of the region and the institution's property should be considered in order to determine the likelihood of emergencies and their potential severity. Relevant state and local authorities can provide long-term records regarding natural hazards pertinent to the area, such as major floods, seasons of severe storms and high tides, and so forth. Secondary and tertiary effects that might accompany a hazard also must be taken into account; for instance, earthquakes can cause structural damage, but may also cause fire, as well as sewage, water, and gas leaks. Each of these effects can, in turn, initiate further hazards. (See "Questions to Consider," on the next page.)

The variety of emergencies the EPC identifies include, but are not limited to, the following:

Natural disasters

- flash flood
- slow-rising flood
- electrical, range, brush, or forest fire
- earthquake
- hurricane, tornado, windstorm
- blizzard, heavy snow
- volcanic eruption, lava flow
- mud slide
- tidal wave

Industrial disasters

- electrical power failure
- fuel supply failure
- water supply failure
- sewer failure or backup
- explosion
- chemical spill
- structural collapse
- structural fire (internal)
- exposure fire (external)
- nuclear power plant accident

Accidents

- broken fuel pipelines
- broken water or sewer pipes
- downed electrical or phone lines
- construction equipment
- motor vehicles
- transport of chemicals or fuels
- transport of nuclear materials
- weapons

Human impact

- vandalism, careless handling of collection
- armed robbery, theft
- arson
- bombing, bomb threat
- conventional or nuclear warfare
- riots, civil disturbance
- terrorist attack (other than bomb)

Questions to Consider

- **Is the institution on a floodplain? If so, is the area on a five-, ten-, fifty-, or hundred-year cycle?**
- **Is an old dam located upriver?**
- **Is the institution in a seismic zone?**
- **Is the institution's plumbing in disrepair?**
- **Where are the drains? Are drains and gutters cleaned on a seasonal basis?**
- **Is the institution dependent on a local utility for power?**
- **Is the region prone to fires?**
- **Has the institution been a target of criminal activity?**

Step 2

Identify potential damage from emergencies

Architectural features. Roof type, foundation age, window size, and dozens of other factors make your institution unique, often in ways that render it vulnerable in an emergency. Committee members should consider how the hazards they have identified would affect the building, staff, visitors, collection, and emergency response procedures. The following types of damage should be considered.

Fire and other heat-related damage. This can result from rapid oxidation of most types of cultural objects and can potentially destroy them. Smoke from fires can coat walls, floors, and all such objects with soot in seconds.

Water damage. This can occur as a consequence of rainstorms, hurricanes, floods, burst pipes, fires, and other emergency situations. Water may warp, split, and rot wooden and other organic materials or lead to rust, mold, corrosion, or general deterioration of objects containing metal. Water also dissolves pigments and may deposit fuels and chemicals onto works of art, causing secondary damage.

Structural failure. Water, sewer, power, and fuel lines can break when structural failure occurs, leading to water and chemical damage or fires. Cultural property may be damaged or even destroyed if the building is damaged.

Chemical damage. This type of damage can result from smoke, chemical spills, burst fuel lines and storage containers, and a host of related events generally known as industrial or hazardous materials accidents. Chemicals may corrode, dissolve, weaken, or stain objects. Secondary damage can also occur as a result of a natural disaster, such as an earthquake.

Human impact. Handling of wet, soot-covered, or damaged works of art can cause further problems. Evacuation should be undertaken only as a last resort, and should not be undertaken without due consideration of how the objects will be carried and stored. Workers must be trained in proper handling of objects. The possibility of injury to staff members during an emergency must be taken into account. If a staff member is injured, he or she will be unable to participate in the response plan and will require assistance from others. This will reduce the number of people able to care for the collection. As EPM, you should build flexibility into the emergency plan and make sure assistance will be available both to injured individuals and for the handling of the collection.

Questions to Consider

- **How will fire and smoke affect evacuation or relocation procedures?**
- **In what situations is evacuation truly necessary? Who decides? Where is the closest safe repository for cultural objects?**
- **When and how can objects be moved to the neighboring gallery, another floor, another building, another town, or out of the country?**
- **How could the presence of a chemical hazard interfere with emergency procedures?**
- **Should evacuation or relocation plans anticipate the possibility of probable structural damage and provide alternative routes?**

Step 3

Distribute the hazard assessment report

Once the EPC has drafted the hazard assessment report, the committee distributes it to members of the departmental teams. The report gives the teams a clearer understanding of the nature of the potential threats, which in turn encourages them to take the emergency preparedness and response program more seriously. Using the report as a guide, the teams assess the institution's vulnerability in terms of their respective departments—collections, administrative processes, infrastructure, or security systems.

Task 2

Identify assets and vulnerabilities

Step 1

Assign department preparedness teams to survey the institution's assets and vulnerabilities

After the potential risks and hazards have been identified, the next step is to set priorities in terms of who is vulnerable to injury and what assets are susceptible to damage; consider this in relation to each potential hazard or a series of disaster scenarios. The safety and lives of visitors and staff are first priority. Assets include buildings, collections, administrative records, equipment, and furnishings.

The EPC can delegate this assignment to the departmental preparedness teams, which should include individuals with particular expertise. For example, one team member may need to research the structural integrity of different parts of the building, the stipulations of insurance policies, or the preservation and conservation needs of the collection. A structural engineer

could contribute the structural information; an administrator or a registrar could contribute the insurance requirements; and a curator or conservator could describe the needs of the collection. A preparator may know how best to handle or pack the collection.

If team members do not have the appropriate expertise, they should work with external consultants. If no conservators are on staff, conservators from museums, regional or national conservation centers, or national or international conservation organizations can be contacted. An architect, a structural engineer, and a mechanical or electrical engineer are important specialists to utilize.

Questions to Consider

- **What is the institution trying to preserve?**
- **What is the institution prepared to lose, and what is vital to save?**
- **Are the risks serious enough to warrant immediate action to protect lives and vulnerable property?**
- **Who will review the prioritization lists before they are submitted to the director for approval?**
- **What degree of confidentiality should be maintained for these decisions, and how will this be done?**

Step 2

Give the preparedness teams a clear mandate of their role

As EPM, make sure members of the preparedness teams have copies of the institution's emergency preparedness policy, the committee's statement of purpose, and the hazard assessment report. In addition to submitting two written reports, the teams are expected to contribute verbally to the emergency plan as well. In carrying out their research assignments, team members will find appropriate help and recommendations in chapters 6–9. The following is an outline of their assignments.

Safety and security. Specific directions for assessing safety and security are given in chapter 6. This team should receive the assistance of both the collections and the buildings and maintenance researchers in preparing the following reports:

Report 1 provides suggestions for protecting visitors and staff and for preventing damage to the security aspect of the institution's activities.

Report 2 gives recommendations for security functions during an emergency. This report should include lists of equipment and supplies needed and any hazardous materials that are stored on-site, job descriptions for the response team, and recommended recovery procedures.

Collections. Specific directions for assessing the vulnerability of the collections are provided in chapter 7. This team should work with the safety and security and the buildings and maintenance researchers in preparing the following reports:

Report 1 provides suggestions for preventing or mitigating damage to the collections.

Report 2 gives recommendations for the role of collections teams during an emergency. This report includes lists of objects to be protected or relocated in the event of certain emergencies; recommended techniques for moving, protecting, or salvaging the collection; a list of the tools and materials needed for those procedures; job descriptions for the response team; and recommended recovery procedures.

Buildings and maintenance. Specific directions for assessing the building and its infrastructure are indicated in chapter 8. This team should consult with the collections and the safety and security researchers in preparing the following reports:

Report 1 provides suggestions for preventing or reducing damage to the building and its infrastructure.

Report 2 gives recommendations for the role of buildings and maintenance teams during an emergency. This report should include copies of such documents as floor plans and electrical and mechanical installation schematics; location of emergency exits, shut-off valves, evacuation routes, and shelters; lists of emergency tools and materials; contact lists of emergency organizations, such as fire marshal, police, and city engineers; recommended procedures for assessing safe reentry; job descriptions for the response team; and recommended recovery procedures.

Administration and records. Specific directions for assessing administration and records are provided in chapter 9. This research requires the participation of the institution's risk manager, controller, staff counsel, insurance agent, and safety and security team in preparing the following reports:

Report 1 provides suggestions for preventing damage to important administrative records.

Report 2 gives recommendations for the role of administration and records teams during an emergency. This report should include lists and location of important documents, disaster-related requirements of the insurance policy, a list of equipment and procedures to provide visual documentation for supporting insurance claims, job descriptions for the response team, and recommended recovery procedures.

Task 3

Implement preventive measures

Step 1

Consider and address additional suggestions and measures

As identified in "Terms to Know" in the introduction to this book, prevention involves activities that focus on preventing emergencies from occurring (particularly potential human-caused emergencies) and on reducing harm to people or damage to property in emergency situations that cannot be avoided.

Working with the EPC, compile the suggestions provided by the preparedness teams, then edit and prioritize them. Have a brainstorming session to come up with any opportunities not already suggested for reducing damage during all of the potential threats identified in the vulnerability and assets analysis. The following may help generate ideas:

- If the institution is in a seismic zone, position the collection out of the path of potential falling furnishings, pipes, and so forth, and ensure that objects will not block entrances and exits if they move or fall.
- If the institution is in a coastal area or on a floodplain, research flood, high tide, and hurricane records over the last century to establish known high-water levels, and ensure that, where possible, buildings are above the critical level. Make sure that collections are displayed and stored above the level or can be moved quickly to a safe area if necessary.
- Bring gas, electricity, sewage, and water systems up to reliable operational standards. Make sure they can be turned on or off quickly. Eliminate leakage. Ensure that fuel sources are available for emergency power.

Refer to chapters 6–9 for more ideas.

Step 2

Implement the preventive measures

The EPC has submitted its final vulnerability assessment and preventive measures report to you, the EPM. Depending on your institution's budget and policy changes, which may be necessary for implementation, you may need to prepare formal proposals for the director and the board of trustees to implement the preventive measures. If budgetary constraints are an issue, implement the preventive measures in the order of their designated priorities (life and safety issues first). Measures that have little or no financial implications also can be implemented.

Task 4

Implement preparedness measures

Step 1

Consider and address additional suggestions and measures

Preparedness measures enable the institution to respond quickly and effectively in an emergency situation and potentially mitigate its damaging effects. Preparedness can actually prevent some emergencies. For example, a well-trained security officer using a nearby fire extinguisher can prevent a wastebasket fire from destroying the building. All staff, not just those who have been assigned specific responsibilities in an emergency, should be trained in emergency procedures. Preparedness measures can be taken before a disaster strikes, such as posting and distributing up-to-date staff contact lists. Others are put in place when an emergency situation is imminent; for example, the staff at the Barbados Museum and Historical Society installed shutters on all windows immediately after a hurricane warning was issued.

Working with the EPC, compile the suggestions provided by the preparedness teams, then edit and prioritize them. Have a brainstorming session to determine any opportunities not already suggested for improving preparedness. The following may help generate ideas:

- Make sure the collection has been fully inventoried and, if possible, catalogued with both written and photographic documentation. This is particularly necessary to support any insurance claim.
- Make duplicates of all important documents and store them off-site.
- Consider installing quick-release mount systems so that objects can be moved efficiently if necessary.
- Ensure that realistic quantities of emergency supplies are on hand or readily available—again, prioritize according to the threats identified in the vulnerability analysis.

Step 2

Implement the preparedness measures on a priority basis

As with preventive measures, depending on the budget and policy changes that may be necessary for implementation, you may need to prepare formal proposals for the director and the board of trustees to implement the measures. Similarly, you will find that many preparedness measures also can be implemented with little or no financial implications; simply copying all important institution documents and storing the duplicate set off-site can make a major difference in any recovery procedure.

Task 5

Develop the response plan

Step 1

Appoint the response teams

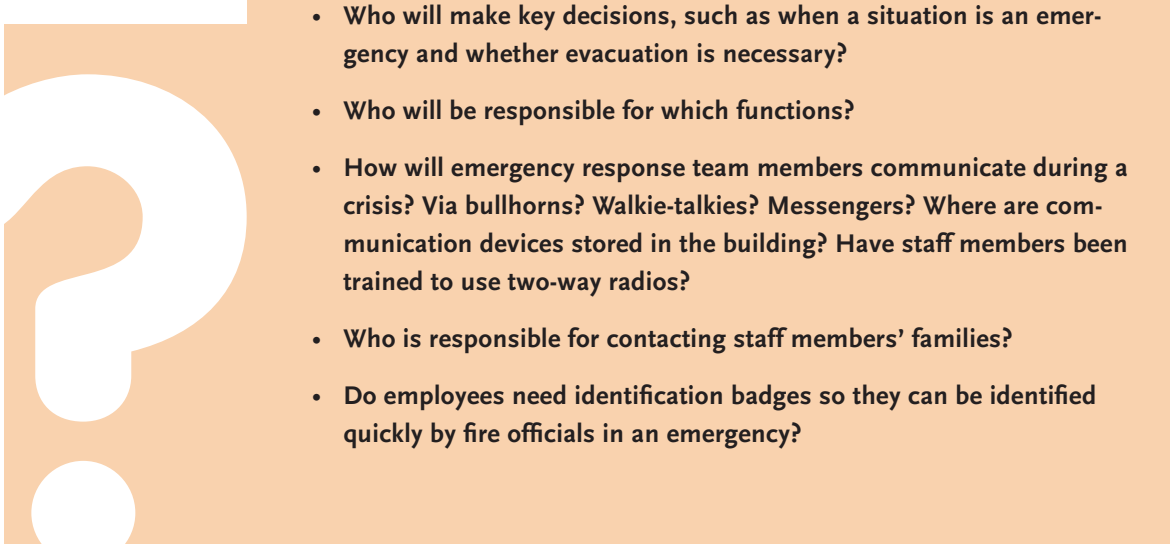
The ERC should work with you, the EPC, and the leaders of the departmental preparedness teams to identify the chain of command in the event of an emergency and to determine appropriate response teams. The structure of these teams depends on the types of threats faced and on the contents of the collection. The preparedness teams may recommend who should participate on the response teams and can develop job descriptions. Once identified, the response teams should participate in the planning process to become familiar with the reasoning that supports every aspect of the emergency plan. The response teams should receive appropriate training (see chapter 5).

Appoint backups for each position, and alternates for the backups. Recognize that the only person present when a disaster occurs may be a night security officer. The only function he or she may need to fulfill is to notify the appropriate staff member and let that person know how best to enter the building. The director and ERC should know staff capabilities *in advance* so that impossible requests and expectations are not made. It is also critical to ensure that, during and after an emergency, team members work sensible shifts and have a chance to rest and eat.

As already discussed, in an emergency the ERC leads the response teams, and you (if you are not also the ERC) and the EPC must be willing to delegate to the ERC the reporting structure for the entire staff during an emergency. Cooperation between the response teams is important. For example, the buildings and maintenance response team must be able to obtain the help it needs to make the building safe enough for people, then to address the needs of the collections.

See chapters 6–9 for more details regarding the roles and responsibilities of departmental response teams.

Questions to Consider



- **Who will make key decisions, such as when a situation is an emergency and whether evacuation is necessary?**
- **Who will be responsible for which functions?**
- **How will emergency response team members communicate during a crisis? Via bullhorns? Walkie-talkies? Messengers? Where are communication devices stored in the building? Have staff members been trained to use two-way radios?**
- **Who is responsible for contacting staff members' families?**
- **Do employees need identification badges so they can be identified quickly by fire officials in an emergency?**

Step 2

Compile an emergency procedures handout

What should a receptionist do if she or he receives a bomb threat? What should a security officer do immediately following an earthquake? What should a maintenance worker do if he or she detects a suspicious odor? These are the types of questions that should be answered in a concise document that clearly describes procedures staff should follow in specific emergency situations. The safety and security team will develop a draft of emergency procedures as part of Report 1—it can then be made into a handout and distributed to staff. The handout should give step-by-step instructions on what to do in the event of likely emergencies, including medical emergencies; flooding and water damage; power outages; suspicious behavior and personal safety; chemical spills, gas leaks, and suspicious odors; earthquakes; fires; phone threats, mail threats, and suspicious objects; explosions; and civil disturbances.

Step 3

Compile and write the response plan

Once the departmental preparedness teams have developed the response procedures relevant to their sections and established their response teams as indicated in Report 2 (see page 50), the EPC can then compile the institution's response plan.

The response plan, to be included in the emergency plan handbook, should contain

- a description of the roles of the response teams and the chain of command;
- information on assisting the ERC in setting up a central base of operations—the emergency command center—following a staff evacuation, and establishing who should implement evacuation;
- procedures to be followed for specific emergencies;
- instructions for establishing emergency shelters;
- instructions for providing medical assistance;
- a list of supplies that will be needed, and where these are to be stored;
- information on relocating, evacuating, and/or salvaging objects and important documents;
- contact information for staff and volunteers;
- instructions for setting up a communications and public relations post;
- a directory of external experts to be contacted for support or assistance;
- contact information for the institution's insurance agent;
- instructions for performing damage assessments; and
- information on protecting the building and grounds.

Task 6

Develop recovery procedures

Step 1

Compile information from departmental preparedness teams

Once an emergency situation has stabilized, the recovery process begins. Recovery procedures do not prevent damage that has already occurred; instead, they are intended to guide staff through the cleanup process and minimize further damage to objects. These procedures are to be developed by the preparedness teams.

Recovery procedures fall into four main areas:

Collections recovery. Staff should be given step-by-step instructions on what to do to take the institution from the stabilization of collections damaged in an emergency through their long-term recovery and availability to visitors, scholars, and others. These procedures are developed by the collections team. The team should name leaders and alternates for each aspect of recovery (such as salvage, stabilization, and supplies). Collections recovery procedures should identify a process for determining priorities and offer details on how various objects should be checked for damage from dirt, debris, fire, mold, volcanic ash, water, and so forth.

Data and telecommunications systems recovery. These procedures should guide staff through the reestablishment of full telecommunications services, including recovery of critical automation systems, and the return to normal business operations. These procedures are developed by the safety and security, buildings and maintenance, and administration and records teams.

Financial systems recovery. These procedures should guide staff through the recovery of financial and payroll systems, the reestablishment of historical and current data, and the return to normal activities. These procedures are developed by the administration and records team.

Buildings recovery. Staff should be guided through the stabilization of structural elements and the return to normal operations, including whether outside experts need to be consulted before the buildings are declared safe to reenter. The procedures should detail how buildings should be inspected for damage from fire, dirt, debris, mold, water, and so forth. The procedures also should describe how to clean the air, glass, masonry/concrete/brick, mechanical and electrical systems, metal, plaster and dry wall, tile, porcelain, and woodwork. Conservators may be required to devise cleaning systems for those structural details. These procedures are developed by the buildings and maintenance team.

Step 2

Write the recovery plan

After the departmental preparedness teams have identified the recovery procedures that will move the institution from a state of emergency back to normal operations, this information is turned over to the EPM and EPC and formulated into a recovery plan. The recovery plan, along with the response plan, is incorporated into the emergency plan.

The recovery plan should

- outline the responsibilities of the recovery team and identify team leaders and the chain of command;
- identify how to document damaged areas, objects in the collection, and other assets with photography, video, and written reports;
- identify specialists to be consulted regarding damage to objects or buildings;
- mandate breaks every ninety minutes during recovery procedures, with refreshments provided if possible;
- identify who should handle objects and when handling might be necessary, and provide handling procedures;
- describe the inventory process for all objects processed; and
- describe how volunteers should be signed on and supervised, and provide task sheets for the functions they will perform.

See chapters 6–9 for more information regarding recovery procedures specific to the individual departmental teams.

Task 7

Write the emergency plan

Step 1

Compile the emergency plan

Once all information on preventive measures, preparedness measures, response procedures, and recovery procedures has been gathered from the departmental teams, the emergency plan is written. (Review Fig. 2, page 51.) The emergency plan also should include a description of when to activate response procedures and how to communicate to staff that the institution is operating in emergency mode, as well as when to declare an emergency over.

To be effective, an emergency plan needs

- to have the active support of the director, governing body, and all levels of staff;
- to be simple, focusing mainly on situations most likely to occur;
- to be flexible enough so that it can be effective in unanticipated or unavoidable situations;
- to be realistic in its assessment of museum resources; and
- to be tested at least annually with an emergency drill.

To develop the plan, the EPC must have identified the hazards facing the institution, as well as its assets and vulnerabilities. The plan should incorporate all issues identified by committee members and departmental teams. Ensure that as many staff members as possible have participated in the process. This level of involvement not only educates and motivates staff, but, more important, also taps into all relevant and available knowledge and skills.

The plan should include the following protection measures:

Prevention. Eliminate hazards or reduce their potential harm to people and potential damage to buildings and the collection. For example, if the facility is in a seismic zone, secure objects on display to prevent movement or damage.

Preparedness. Prepare and equip personnel to handle an emergency. For instance, create emergency telephone lists, stockpile supplies, and train staff and volunteers in how to use them.

Response. Prevent injury and limit loss. For example, train staff and volunteers to evacuate visitors, colleagues, collections, and records safely. Response activities are those that can be carried out in the first forty-eight hours after an emergency.

Recovery. In returning operations to normal, make sure that participants are properly trained and guided in making the recovery process as efficient as possible. For example, reestablish telecommunications and financial systems, and inspect buildings for water, fire, and other damage.

The plan must also address the following areas:

Evacuating/relocating staff and the public. Design exit routes for every conceivable location in each building. Be sure to consider the vulnerability of those routes to the identified hazards. Develop procedures for determining if the building is empty, and design a system of checking in so that all staff and visitors can be accounted for. Evacuation or relocation procedures should specify a destination, which may change depending on the emergency. Prescribe protocols for distributing these responsibilities among members of the response teams. Specify the criteria team leaders should use to make decisions. (For additional information, see chapter 6, task 3, pages 124–25.)

Evacuating/relocating objects and records. Develop protocols by which a curator, registrar, preparator or conservator, or the ERC will have the authority to approve the movement of objects and administrative documents. This should include the criteria for making such a decision, as well as for the techniques to be utilized. Procedures for protecting or salvaging various objects, in terms of type and extent of damage, also should be carefully described. Determine who should be trained in these techniques. The plan should identify secure relocation areas. (See chapter 7 for information on evacuating objects, and chapter 9 on evacuating records.)

Ensuring staff and visitor safety. In the emergency plan, provide directions for fast, safe evacuation, and for administering first aid, documenting injuries, securing professional medical assistance, providing follow-up counseling for staff, and so on. Will a first-aid area be set up? With what medical supplies and equipment? Make sure there are sufficient emergency provisions of food, water, blankets, and medical supplies. (See chapter 6 for more information.)

Taking security measures. Design a set of procedures by which your response team and/or security staff will protect personnel and visitors and the collections. You may want to prescribe rules for what people can and cannot do, as well as what areas of the institution should be cordoned off. Plan for every contingency, such as evacuation or relocation, power loss, and even terrified visitors. (See chapter 6 for further information.)

Taking protective measures. Give instructions in the plan for turning off the utilities—such as gas, electricity, and water. Include descriptions of how to prevent or mitigate the effect of an impending threat—for example, how to organize a sandbag effort or board up windows before a storm. Materials that must be on hand should be identified. (See chapter 8 for more information.)

Involving administration. Administrative personnel will be instrumental in protecting or relocating administrative records. Factor their role into the plan, such as gaining access to cash if banks are not open. During certain emergencies, it may be necessary to have a telephone bank set up to enable staff to dispense information. (Further information can be found in chapter 9.)

Assessing the damage. It is likely that your institution's insurance policy stipulates the damage assessment procedures that should be taken. Who should carry out the assessment? Does an insurance agent have to see a damaged object before it is moved? What forms of documentation are required for a claim? Preparedness measures include keeping preprinted damage assessment forms and documentation equipment, such as Polaroid cameras, in an accessible location. (Refer to chapter 9 to learn more.) If the buildings have incurred damage, an assessment (perhaps by an outside agency) is also necessary before staff can be allowed back into the building.

Step 2

Write the emergency plan handbook

Once the EPC has completed a draft of the emergency plan, it should be circulated among staff for comments or discussed at a staff meeting. Feedback from staff at all levels should be considered, as should any fears or expectations, and appropriate revisions should be made as soon as possible. The next step is to use the information in the emergency plan to compile the emergency plan handbook.

The Getty Center's "Emergency Planning Handbook"[3] includes the following:

- policy statement from Stephen D. Rountree, vice president of the J. Paul Getty Trust
- introduction by Wilbur Faulk, director of Getty Center Security
- staff emergency procedures
- summary of the organizational emergency response
- evacuation procedures
- emergency communications
- organizational chart showing the chain of command
- checklists
- fact sheets
- on-site supplies
- off-site resources
- training information

The complexity of an institution's emergency plan depends on a number of factors, including size of the institution, types of hazards identified, number of buildings, and variety of the collections (for example, Mystic Seaport Museum in Mystic, Connecticut, has a collection of ships).

Appendix B contains contents pages from existing emergency plan manuals. One is from a large institution, the Getty Center; the second from a medium-size museum, the Seattle Art Museum; the third from a smaller museum, the Barbados Museum and Historical Society; and the fourth from the Mystic Seaport Museum, which has very specialized needs. The 36 pages of the Barbados Museum and Historical Society's emergency plan serves that institution's purposes well. The Mystic Seaport Museum's "Severe Weather Manual" contains approximately 180 pages and is devoted to the museum's main hazard—potential seaborne disasters.

Notes

1. John P. Barton and Johanna G. Wellheiser, eds., *An Ounce of Prevention: A Handbook on Disaster Contingency Planning for Archives, Libraries, and Record Centers* (Toronto: Toronto Area Archivists Group Education Foundation, 1985), 1. Used by permission.
2. Adapted from Jon. R. Katzenbach and Douglas K. Smith, *The Wisdom of Teams: Creating the High-Performance Organization* (New York: HarperBusiness, 1993).
3. Getty Center, "Emergency Planning Handbook" (J. Paul Getty Trust, Los Angeles, 1997, photocopy).

Chapter Summary

This chapter outlined how to launch an emergency preparedness and response program and lead the emergency preparedness committee through the process of developing an emergency plan. It emphasized the importance of building a cohesive team and working with outside experts such as fire officials. This chapter

- explained the role of the emergency preparedness manager and the emergency preparedness committee in the planning process;
- outlined what the EPM must do to get the EPC working as effectively as possible;
- outlined the role of the departmental preparedness teams and types of information the teams should gather; and
- guided the EPC through the tasks needed to compile the emergency plan and produce the emergency plan handbook.

CHAPTER FOUR

Communications

Why Communication Is Important

> *Communication is not just about devices—it has to do with how you convey information, whether in writing, visually, or orally. It is also about the subliminal messages conveyed "between the lines." And it is about the communications climate you create, as in "no concern is too small" or "the door is always open."*
>
> — Barbara Roberts
> Conservator and hazard mitigation consultant

An effective communications system is a natural consideration when preparing for emergencies or disasters (Fig. 3). Working closely with the director and emergency response coordinator (ERC), a communications team must be prepared to

- oversee all external communications during an emergency;
- ensure that a clear internal communications system is in place;
- gather, compile, and coordinate information for dissemination through the media;
- gather, compile, and disseminate incoming information regarding the state of the emergency in the area;
- serve as liaison with outside agencies and the community;
- serve as liaison to families of employees and visitors;
- inform donors and/or other institutions of the status of their gifts or loaned objects; and
- manage all outside telephone communications.

Communication can also encompass

- communicating clearly and early on with insurance agents, lawyers, trustees, police departments, emergency agencies, and the media;

Figure 3 A floor warden, holding a megaphone for communicating with her team, as she checks list to verify that all staff members have arrived at the designated location during an evacuation drill at the Getty Center. Photo: Joe Alarcon.

- keeping the emergency plan simple so that it conveys the essentials in a straightforward manner;
- listening to the fears and concerns of staff and remaining open to discussions of sensitive issues or conflicts;
- suggesting ways to help staff members protect their own homes and families;
- providing accurate and adequate information to those involved in developing the emergency plan;
- keeping staff and trustees up to date on the preparedness process;
- informing staff members of their roles during an emergency and providing them with regular training sessions;
- maintaining thorough records of all that happens during drills and actual incidents;
- obtaining honest and thorough feedback on the execution of the plan; and
- providing evacuation maps and instructions in other languages.

The most obvious communications questions may include, How will we transmit internal and incoming information to one another? How can we keep the public informed? What happens if the phones do not work? Who will be in charge of talking to the media?

The emergency plan must address these issues, which are discussed later in this chapter. The bottom line is that good communications before, during, and after a disaster—as well as during the planning process itself—create the potential for full recovery.

A breakdown in communications is not always obvious. Say, for example, that at institution XYZ, the leaders of every department—collections, security, buildings, and administration—all agree that the facility is prepared to respond properly to a disaster. "We have a plan," each of them says. Actually, the institution has four separate plans, and each leader is not familiar with the other three plans. Furthermore, no staff member besides these four people is aware that any plan exists at all.

Unfortunately, all too often one or a few individuals toil in isolation on the emergency plan. Except for a binder that might one day magically appear on desks throughout the institution, nothing else is done to make others aware of the process.

As emergency preparedness manager (EPM), the tone you set during the planning process affects the entire emergency plan and its execution. An effective plan benefits immensely from broad and effective communication during the planning process—internally as well as with outside institutions, such as emergency agencies and the media. Likewise, an effective response to a disaster requires that all persons know the institution's plan and their role in it.

Many emergency planning experts recommend beginning at the personal level. While the emergency preparedness committee (EPC), of which you will be in charge, is convening, create awareness among staff by scheduling presentations or handing out pamphlets from the Red Cross and other agencies that give advice on how to protect home and family during a disaster. Or buy first-aid kits in bulk and sell them to employees at a discount. Doing so can engender goodwill and cooperation for the forthcoming planning process. Barbara Roberts, conservator and hazard mitigation consultant, and Gail Joice, senior deputy director and registrar of the Seattle Art Museum, stress the importance of sending the message that an institution puts staff members and their families first.

The following tasks will help you establish effective communication during the emergency planning process (these are described in detail on the following pages):

Task 1: Focus on building team communications.

Task 2: Equip the preparedness teams with the proper tools and information.

Task 3: Update staff on the progress.

Task 4: Cultivate contacts with outside agencies.

Task 5: Utilize the media.

Task 1

Focus on building team communications

Take the human element into account, encouraging imagination, leadership, cooperation and level-headedness. A lack of any of those qualities will be just as serious as any shortage of blotting paper, plastic sheeting, plywood or rubber boots.[1]

— John E. Hunter
Supervisory staff curator
National Park Service, U.S. Department of the Interior

Having a broad spectrum of participation from all staff ensures that your planning efforts will reflect a wide range of views. Teamwork is essential to a good emergency response program. The following methods help team members communicate and function effectively during the planning process:

Encourage an open, supportive environment. Group members must feel free to contribute ideas and feelings and must believe others will listen. An informal, comfortable, and relaxed atmosphere tends to work best. Encourage frank, constructive criticism devoid of personal attack. Allow members to express their fears and anxieties at the beginning.

Establish a cooperative climate. Members must work to demonstrate mutual trust and respect. The key is coordination, not domination or manipulation. Encourage all team members to participate, keeping discussion pertinent to the group's task. Carefully consider disagreements and seek to resolve them rather than to dominate the dissenter. Seek to reach decisions by consensus.

Make clear assignments and set clear expectations. This makes it harder to drop the ball or pass the buck at meetings. If the team's rules and assignments are not focused, neither will the team's work be. Some rules you may want to consider involve[2]

- attendance (e.g., interruptions to take phone calls are not allowed);
- discussion (e.g., forbidden topics are not allowed);
- constructive confrontation (e.g., helpful criticism and views, not personal attacks, are encouraged); and
- contributions (e.g., everyone does real work).

Schedule debriefing time. Encourage team members to talk with one another in a casual, more personal way after each meeting or presentation. This is the time to stop thinking about emergency or disaster scenarios. It is a time for members to relax, a time to express fears or concerns.

Suggested Exercise

It is important to evaluate all ideas. Rushing to judgment on a suggestion can discourage members from sharing potentially valuable ideas. Ask your group to come up with ten or fifteen deflating statements that people should avoid making during the initial development phase. Here are some examples:

"We tried it before, and it didn't work."

"It's too expensive."

"We could never do that."

"We've never done it that way before."

Task 2

Equip the preparedness teams with the proper tools and information

You cannot expect everybody who is going to take on the responsibility of formulating a disaster response plan to have been through a disaster. You can provide them with a better understanding of the reality through the available resources, such as publications and presentations by people whose entire profession revolves around preparing for disasters.

— Jerry Podany
Head of antiquities conservation
The J. Paul Getty Museum

How do you provide the information the preparedness teams need? What information-gathering suggestions can you give to team leaders? Do not let the committee or departmental teams assume that all the information needed exists in their collective experience and knowledge. Here are ways to add to the contributions that team members make:

- Schedule presentations by outside experts, such as representatives from a national emergency organization—for example the Federal Emergency Management Agency (FEMA) in the United States, local fire department officials, and preparedness experts. Staff members are more likely to respect the advice of an authority in the field than that of a colleague. As an added benefit, such presentations provide the most current information. Some public agency personnel will make presentations at no charge.
- Arrange for presentations by local individuals who have actually been through a disaster. These people could be business owners, newspaper reporters, the first person on the scene at a museum emergency, volunteers who helped in recovery efforts, or a National Guard or military officer who assisted in evacuating objects. The details and perspectives they provide are invaluable.
- Screen videos simulating actual disasters. For example, the Seattle Art Museum used the Los Angeles Fire Department's earthquake video to great effect. "It really makes you realize what it is like to be there," says Gail Joice.
- Supply names and telephone numbers of officials in cultural institutions throughout the world that have experienced high-profile disasters, such as the 1993 bombing of Uffizi Gallery in Florence, Italy, or the 1988 fire at the Louisiana State Museum. Depending on your budget, it may be helpful to have team members interview some of these individuals.
- Copy and distribute papers on such topics as the latest earthquake protection measures or dispelling myths on how people act in disasters.
- Provide written accounts of disasters, whether from newspaper archives or museum publications. Photographic documentation is especially effective.

Task 3

Update staff on the progress

Providing regular updates on the progress of planning efforts helps educate staff about preparedness and keeps it fresh in their minds. Updates also help build confidence in the institution. "There is the important subliminal message for the staff that the museum is making a conscientious effort to care for its visitors, its collections—and them," remarks John Walsh, director of the J. Paul Getty Museum.[3]

To maintain staff interest, alternate standard memos with more creative means of disseminating information. A few examples:

- Display in the staff room a pictorial exhibit of protective measures the institution is implementing.
- Prop a poster-size disaster picture on an easel, accompanied by a bulleted list titled, "What We Are Doing to Prevent This." List important preparedness measures the museum is implementing.
- Videotape protection efforts throughout the building, from building new storage-room shelving to installing quick-release mounts to filling emergency supply crates. Screen the video for the entire museum staff. Keep the presentation short, and conduct a question-and-answer period afterward. The tape can also be used in workshops with other institutions.

Input from staff can be solicited by setting up an emergency suggestion box. You can also gather feedback and input by circulating a questionnaire among staff. Informed workers who feel their opinions count make more-eager participants. Also be sure to keep the board of trustees up to date. Make preparedness updates a regular agenda item for the board and/or invite trustees to presentations, or make emergency preparedness the focus of the next board retreat.

Task 4

Cultivate contacts with outside agencies

Making contact with external businesses, institutions, and individuals *before* something happens is an integral part of emergency preparedness. Doing so leads to faster response time during incidents and can help streamline the recovery process. For example, do local fire department officials know where the chemical storage areas are and where *not* to spray water through the windows? Can you schedule informal meetings with these officials for the exchange of such information?

Similarly, establish a relationship with local hardware and other supply stores ahead of time. Decide who should be authorized to make purchases there in the event of an emergency, and whether cash, credit cards, or a line of credit should be used.

If your institution does not have a conservator on staff, contact the nearest conservation facility or private laboratory and make sure its staff knows what type of collection you have. Does the conservator or facility have the expertise the collection requires, or will you have to make contact with a specialized conservation consultant?

Any tool that reduces the chaos of the moment improves the chances of recovering precious objects and stabilizing the buildings after disaster strikes. One useful tool is *The Emergency Response and Salvage Wheel* produced by the National Institute for the Conservation of Cultural Property.[4]

Questions to Consider

- **How will the emergency plan be affected if the institution is designated as a shelter during a widespread community disaster?**
- **Have you discussed with local authorities whether the institution is listed as a priority for assistance? (Remember to mention that the institution is host to school groups and other public tours.)**
- **Is there a complete, easy-to-read list of emergency telephone numbers for local authorities, and are copies posted in areas that would enable immediate access?**
- **Are all lists of phone numbers, including temporary storage locations, current?**
- **Is the local utility company aware of the institution's urgent need to have power restored immediately after an emergency?**

Task 5

Utilize the media

Contrary to public opinion, the media can be a helpful resource rather than the source of problems. In fact, you can use the media to your benefit throughout a disaster and its aftermath. Take advantage of the opportunity *during* the planning process to publicize your efforts. Doing so lets the public know the institution cares about the safety of its visitors, increases public awareness about emergency preparedness, and helps raise money to pay for protective measures. Here are a few ideas:

- Invite the media to one of your drills, either to cover the drill or to participate and act out their part, or both.
- Suggest a story to the local newspapers or television stations about the unique aspects of emergency preparedness in regard to the institution's collection.
- Send out regular press releases to publicize unique aspects of the plan, photo opportunities, preparedness speakers scheduled to appear at the institution, upcoming staff drills, or volunteer training sessions. Though you may never see an article out of the releases, this "drip system" approach keeps your institution in the minds of reporters and editors.
- Publicize a fund-raising event to benefit emergency preparedness efforts.

Be prepared for the media. Have background materials on your institution, its collections, and the emergency plan written in advance. Make it your responsibility to ensure that reporters get accurate information. Also, know and respect reporters' deadlines. Make it easy, not hard, for them to do a story.

Developing an Effective Communications Program

It is much easier to respond positively in a difficult situation if you are aware of what is happening. The goal of any effective emergency plan is to keep the lines of communication open in both directions so that information and instructions can reach all staff. It is also essential that communications remain rapid and accurate. The absence of these attributes can result in inappropriate or inefficient responses to subsequent problems.

The following tasks will help you and the EPC develop a simple, flexible, and effective communications program for the overall emergency plan (each task is discussed more fully on the following pages):

Task 1: Evaluate equipment needs.

Task 2: Establish emergency communications procedures.

Task 3: Set guidelines for dealing with the media.

Task 4: Plan for the unexpected.

Task 5: Establish communications procedures for recovery.

Task 1

Evaluate equipment needs

There is no denying that communications in the event of a disaster—particularly a regional disaster—will be difficult. Telephone lines, if they are working at all, will probably be jammed, and if lines are down, even power backup systems may be useless. You need an alternate means to stay in touch. As technology surges ahead, more and more alternatives to regular telephone service have been developed that could be employed in a disaster.

What answers did you come up with—cellular phones, walkie-talkies, handheld radios? Pay phones are often the first to be restored in a disaster. What about e-mail? And what if none of the above works or is available? One solution is to rely on one of the oldest forms of communication known to humans: runners. Staff members can set out on bicycle or on foot.

Start by determining what the institution has on hand now. You may want to identify which staff members have personal cellular phones. What is the best backup, given the particular risks associated with the location and based on your budget? The publication *A Manual of Basic Museum Security*[5] identifies the following emergency communication options:

- voice communications
- hand signals
- written reports
- signs and graphics with rules and regulations
- whistle signals
- flashlight signals
- bell signals

Suggested Exercise

How many alternatives to standard, in-house telephone service can you name in one minute?

- electric light signals
- telephone signals
- sirens and horns (fire)
- radio communication
- coded announcements
- intercoms

Questions to Consider

- **Are there areas in the building in which walkie-talkies or radios do not work?**
- **Do all staff members know how to use the communications equipment?**
- **Does any equipment require batteries or chargers? Are the batteries installed? Are replacements on hand? What is the source of power for battery chargers? Are they regularly tested? Whose responsibility is this?**
- **Are alternative devices stored throughout the building, including in storage areas?**
- **Does anyone on staff have a ham radio license? Is there an association you can connect with during an emergency, such as the Amateur Radio Emergency Association (AREA)?**
- **Should runners obtain signatures to document that the messages they carry were delivered to their intended destination?**
- **Is the telephone list of emergency numbers located near each emergency telephone? Do staff members have a copy at their desks?**
- **If the institution has a public announcement system, is it sufficiently audible in all rooms? If not, how will you get evacuation and other emergency information to everyone in the building?**
- **Are telephones installed in the elevators?**

Regardless of the alternative methods you choose, make sure that the emergency command center, established by the ERC, is able to communicate with any unit of your operation. If the emergency is confined to the building, you may be able to have the telephone company restore service quickly or install new phones to handle the increased volume of calls.

Task 2

Establish emergency communications procedures

You and the communications coordinator (or designated institution spokesperson if no coordinator has been appointed) are to establish the procedures to follow during an actual emergency. Both internal procedures (how information is communicated within the organization) and procedures pertaining to people and agencies outside the institution need to be addressed. As with every emergency response team member's role, the specific procedural responsibilities of the communications coordinator should be rehearsed during drills to identify any weak links in communications. Don't wait until an actual emergency to discover and resolve these problems. See chapter 5 for more training-related activities.

Step 1

Address internal communications

Emergency communications procedures begin the moment the response plan goes into effect, but because communication can be greatly reduced for a considerable period of time during an emergency, how will staff and visitors know that the plan has been activated? Will an announcement be broadcast over a public address system? Will workers use the "buddy system" to make sure staff and visitors are safe and accounted for?

Emergencies and disasters often seem to happen at the worst possible time and under the worst possible conditions. In other words, bad wiring could start a fire at 2 A.M. in a locked corner office during a rare blizzard, when only a substitute security officer is on duty. Although this is not a highly likely scenario, it emphasizes the possibility that staff will be at home when disaster strikes, which brings up various concerns your planning should address.

If disaster strikes during work hours, predesignated people can step in and fill the emergency team roles to which they were appointed. These individuals, however, may be preoccupied with the safety of their families and homes. An effective solution is to have one person—most likely the human resources director—be in charge of contacting families. The Seattle Art Museum's solution is to allow small groups of people to go to the communications center to call loved ones. "If the situation allows for it, that is the more humane approach," explains Gail Joice. Your institution probably has pay phones on-site, which generally are the most reliable after a disaster.

Suggested Exercise

As you prepare this section of the emergency plan, it is helpful to imagine various worst-case scenarios and what kind of response is best in each. Be specific. The more details you include, the more realistic the exercise and the more useful the results. Envision the water rising in your office or hear the wind snapping telephone poles. Imagine the worst that can happen, from a communications standpoint, then imagine you had two days to prepare for the disaster. What would you do? How would it be different if you had no time to prepare? What could you do now to prepare for such a scenario?

This exercise helps guide you toward an effective response plan.

Questions to Consider

- **How will staff members communicate with the institution if the emergency happens when they are at home?**
- **Under what circumstances should staff stay at home?**
- **Are there key people who should get to the institution even if they have to walk miles?**
- **Do you have an up-to-date telephone list of emergency staff phone numbers? Have you distributed copies of the list to all staff for both office and home reference?**
- **Are emergency team roles clear for those who can make it to the site?**
- **Do staff members keep an out-of-state emergency contact number on hand in case phone system breakdowns prevent them from reaching their families directly?**

Here are a few good rules of thumb for communicating during an emergency:

- Keep each communication to a minimum.
- Never give more than three instructions (two are ideal) at a time, and keep them short.
- Give instructions in writing. This practice results in more efficient communications.

Many preparedness experts recommend thoroughly and meticulously recording the entire response, salvage, and recovery phases—both for insurance purposes and to benefit the institution in evaluating the effectiveness of the plan. Neither you nor any of your colleagues will remember the myriad details of the operation a month later. Assign one person to be the recorder—ideally, a member of a response team. Document all actions in writing or with images. If photographic or video equipment is unavailable, it may be possible to roughly sketch an object or a scene. Tape-recording observations is also a quick method.

Step 2

Address external communications

The appendixes to the emergency plan should contain instructions for contacting outside agencies and individuals (i.e., police and fire departments, utilities, hospitals, insurance agents, technical experts, etc.), along with notes about services offered. Always date the list and update it periodically. Consider

contingency plans for contacting these agencies if normal communications are down or overloaded.

If the institution closes, the communications coordinator will need to inform not only the media but also such entities as the local convention and visitors bureau, scheduled group tour organizers, paid tour guides, and volunteers. It is essential to contact your board officers, or at least the chair/president of the board, to notify them of the emergency and the institution's status. Also consider contacting key local officials (mayor, governor, etc.), trustees, and others to appeal for assistance.

Other considerations need to be made for visitors during a crisis. For example, if walkie-talkies or public address systems are used, establish code names for certain emergency situations so that you can notify staff without causing undue panic among visitors. Avoid alarmist terms such as *code red*. Have staff practice using radios and following rules of essential communication to avoid blocking the channels with useless talk.

You may also wish to acquire maps and evacuation instructions in other languages. What are the predominant languages spoken by visitors to the institution? The J. Paul Getty Museum identified nineteen languages among and now publishes maps in a multitude of languages.

Step 3

Set guidelines for working with volunteer emergency workers

It is not unlikely, especially during a regional disaster, that in the aftermath the institution will be inundated with well-meaning volunteers eager to help. Develop in advance a system that helps you effectively use the skills and energy of these volunteers. The effectiveness of their assistance depends on the effectiveness of your communication with them. *Protecting the Past from Natural Disasters*[6] offers the following suggestions for working with volunteers:

- Clarify expectations on each side.
- Define jobs to be done.
- Set specific goals, weighing costs against benefits.
- Persuade volunteers to do needed work that they may not have envisioned, such as answering telephones.
- Provide recognition for the volunteers' contributions, from public thanks to free lunches, if the budget permits.
- Say no to volunteers if you cannot adequately direct them.

Task 3

Set guidelines for dealing with the media

Dealing with the media is one of the most critical tasks in an emergency. How your institution responds to a crisis within the first twenty-four hours can have a lasting impact on its public image and relationship with the media. Working with the media both before and after an emergency can turn them into a resource rather than a problem source.

The following basic steps will help you, your communications coordinator, and your staff deal wisely with the media. The publications *Steal This Handbook! A Template for Creating a Museum's Emergency Preparedness Plan*[7] and *Maritime Museum Emergency and Disaster Preparedness and Recovery Manual*[8] have been used as references.

Step 1

Establish rules for handling reporters

The basic rule for staff to know regarding interacting with reporters is that staff members should *not* interact with them. Advise employees not to start rumors or gossip about the emergency situation and to avoid making casual remarks that could be picked up and disseminated. Such remarks could be embarrassing or inaccurate or could cause a public relations problem. Every staff member should be trained in how to use communications equipment and in how to conduct himself or herself with the media. Role-playing is a particularly good way to practice the latter (see chapter 5 for more information).

Urge all staff to follow these additional rules:

- Never say "No comment." Explain that the communications coordinator will provide the information when and if it becomes available. Do not hesitate to say "I don't know."
- Avoid all speculation of cause or blame, especially if authorities are investigating the event.
- Keep information that might be damaging to the institution or to an individual confidential.
- Do not release the names of injured individuals or fatalities until family members have been notified.

Step 2

Know how to create a good news release

Remember, the media will report an emergency whether you like it or not. This is the opportunity to influence what the media will say. The following are general rules governing news releases for emergency events. These rules can be adapted for other types of releases, such as an appeal for volunteer assistance. The communications coordinator should use this opportunity to influence what

will be reported; in other words, provide sufficient, accurate information while maintaining control of how much information is disseminated.

- Date the news release and use the words "For immediate release" at the top. Provide information on the person to be contacted for more details—usually the communications coordinator.
- Answer these questions in the first few sentences: What happened? Why and how did it happen (if known)? When and where did it take place? Who was involved?
- State all the facts clearly and concisely. You may, however, need to omit certain details if they interfere with an investigation or compromise a policy of donor confidentiality. Reassure the public, if possible, that the majority of the most valued holdings are safe.
- Never divulge the value of damaged or destroyed objects. Instead, indicate that they are irreplaceable and/or have research value, or report, "We have considerable loss and are trying to substantiate the dollar damage." One museum lost credibility in the eyes of its community after initially estimating its losses at US$1 million, then revising that amount to US$700,000 the following day and, two years later, increasing it to US$8 million, and counting.
- Assure the public that the institution is aware of what happened, is cooperating with the authorities, and has initiated its emergency response plan, and that a team of trained personnel is at the site working as quickly as possible to resume normal operations. Say that you will continue to provide all appropriate information to the media.
- Indicate what steps have been taken to correct the situation and to prevent or minimize its recurrence.
- Avoid placing or taking blame.

Use news releases to give the "hard news," the basic facts about the incident. A photograph with a short caption can add visual impact and improve the chances of getting coverage. It is also helpful to provide background information so that a reporter can fill out the story. For example, summarize the institution's history or give a biographical sketch of the artist of a damaged painting. Prepare whatever information you can in advance and store it with the emergency supply kits. The director should approve all releases, with a copy going to the trustees when possible.

Step 3

Learn how to handle interviews

When giving an interview, whether for print or electronic media, follow the guidelines in step 2 for creating a good news release. Before the interview, review the key points you want to emphasize. Rehearse, if necessary. Here are some additional suggestions:

- As in step 1, say "I don't know" rather than "No comment," adding that you will attempt to find the answer. Focus on facts rather than on opinions. Do not speculate.
- Use simple, descriptive language, and do not ramble.
- Make your message clear. Repeat it if necessary.
- Be consistent with each reporter.
- Relax and be as positive as possible.
- Listen carefully to a question before answering it.
- For a print interview, prepare written materials to support your statements and have them on hand.
- State that monetary donations will be gratefully received and will be put to good use to preserve the collections.

For television interviews:

- Choose an appropriate location; do not let cameras impede the recovery process.
- Give the reporter your undivided attention.
- Ignore accompanying cameras, microphones, and technicians.
- Keep your answers short and clear. Correct any inaccurate information contained in the questions.
- Again, state that donations of money will be gratefully received and will be put to good use to preserve the collections.
- After the interview, ask when the tape will air. Obtain a tape later to complement your documentation of the event.

Task 4

Plan for the unexpected

Before cellular phones were available, a major storm made its way onto Connecticut's shoreline the very day the telephone system at Mystic Seaport Museum was being changed. Putting the communications portion of its comprehensive and well-rehearsed emergency plan into action required a great many quarters for use at the pay phones. (At least someone had thought to have quarters on hand!) Planning for the unexpected is essential; it is like having a backup plan for the backup plan.

When the unexpected happens, on-the-spot ingenuity is called for, which can be fostered during the planning process. During the 1994 power outage at the Seattle Art Museum (see pages 24–25), the museum's spokesperson quickly got word to the media that the museum would be closed. Despite this effort, the museum still had crowds of people knocking on its doors, wondering why it was closed and when it would reopen. Admissions staff volunteered to take turns standing outside in the frosty, biting wind to inform people. Meanwhile, the museum had a graphic design employee make signs to put on the doors. Senior staff members communicated their appreciation to the museum workers by joining them on-site and bringing them hot coffee and pastries.

Task 5

Establish communications procedures for recovery

The tone and timing of postdisaster communications affect the entire recovery operation, from how workers are accommodated to how effectively the media are handled. In building the plan, consider the following steps.

Step 1

Make information a priority

> *The smallest historical societies could have collections that mean more to their particular communities than anything at the Metropolitan Museum in New York City does.*
>
> — Barbara Roberts
> Conservator and hazard mitigation consultant

The more information staff members have about a disaster and about the institution's status and problems, the better they are able to cope and assist in the event of an emergency. When that information is accurate and direct, it leaves less room for rumors and untruths to disrupt the recovery process. In the aftermath of a disaster, consider scheduling sessions with the entire staff or in smaller groups. Tell employees what happened, what has been done about it, what is in progress, how the institutution is doing, and so forth.

You may be in a situation in which the community cares deeply about the institution and its heritage. There may be people outside weeping. Look for the positive side in the situation and communicate it to the community. For example, name some of the precious works of art or artifacts that are safe.

If you need to communicate with large groups of people, consider using flyers. For example, following Hurricane Hugo in 1989, the Preservation Society of Charleston quickly produced and circulated a flyer suggesting that owners of historic buildings install temporary roofing until proper materials and help could be obtained. Similarly, preservation officials in California found themselves fighting the unwarranted rush to demolish historic buildings that had been red-tagged after the Loma Prieta earthquake in 1989. Several preservation organizations launched a "second opinion" campaign by distributing information packages detailing alternatives to demolition. This information went to government administrators and officials, preservation groups, architects, and others, and succeeded in saving hundreds of houses. The packages included lists of essential information, such as qualified structural engineers, loan sources, and suggested preservation strategies.

This type of education can consitute a major part of the communications responsibilities after an event. If the community or region looks to the institution for expertise, consider offering any of the following:

- standard conservation and/or recovery literature
- technical consultation or services
- seminars for contractors or other recovery-related workers

- workshops on specific topics, such as general salvage techniques for heirlooms
- access to your institution's list of suppliers

Step 2

Build debriefing and counseling sessions into the plan

Taking care of yourself and your workers will help you better care for the collections after disaster strikes. Depending on the size of the institution, this is an important and time-consuming responsibility that cannot be assumed by the communications coordinator, the ERC, or the EPM. A human resources coordinator should be assigned to this role.

Debriefing for all workers participating in the response and recovery effort should take place every day from the beginning of an incident. A debriefing is a specific, focused intervention to help employees deal with the intense emotions that are common at such a time.[9] Encourage staff members to voice their concerns and feelings. A local community mental health center can help set up the debriefing and assist in incorporating crisis counseling into the plan. It is normal to feel depressed to some degree after a disaster. Discuss this and other stress reactions with staff. You may want to arrange for a mental health professional to address the debriefing. People may have strong and conflicting emotions to deal with, particularly if there is death or widespread destruction.

Staff members who feel the need to stop working must be allowed to freely communicate this to officials. Look for signs of stress among workers (e.g., fatigue, anger, and fear). Early identification and intervention are key to preventing worker burnout. Breaks should be mandatory, particularly when it becomes evident that worker effectiveness is diminishing. Bathroom facilities—even if they are improvised—must be provided, as well as food and beverages, shelter, and a place to sit or lie down. Paying attention to—and planning ahead for—the mental well-being of workers conserves a precious resource that is necessary for the months or years it may take for the institution to fully recover.

Step 3

Be on the lookout for media opportunities

Though they bring destruction and damage, disasters also bring opportunities to repair, replace, and rehabilitate buildings and collections, raising them to standards higher than those that existed before. This is made possible through the fund-raising and promotional campaigns generated after a disaster. Knowing how to work with the press, especially if good relations with key media

personalities have been established beforehand, can affect how well the museum survives—and even thrives—in a postdisaster climate.

For the next four to six months following an emergency event, public awareness of the need for emergency preparedness will be at an all-time high. There is no better time to launch a fund-raising effort to help pay for recovery, to build a new facility, or to put mitigation and preparedness measures into effect. A well-prepared museum director has a ready "wish list" to capitalize on the opportunity. As EPM, discuss this with the director.

This is also the time to promote crucial public relations efforts, such as the "second opinion" campaign that saved hundreds of historic California houses from demolition after the Loma Prieta earthquake (see step 1, page 84). Or, once the city or town has been made safe, organize a community campaign to let tourists know that business is back to normal. This fosters good relations with emergency organizations and other individuals to publicly acknowledge a job well done. For instance, if the fire department provided extraordinary service, acknowledge it in a news release.

Look for the human-interest stories that would attract the media and cast a positive light on the institution. Twenty-four hours after a devastating hurricane struck in 1996, the Museum of Antigua and Barbuda reopened its doors to become a sanctuary for displaced schoolchildren while anxious parents worked to put their lives back together again.

Step 4

Evaluate the plan and its execution

After a disaster—even after every training drill—it is essential to hold a "postmortem" discussion of the emergency plan to evaluate what was learned from the experience.[10] First, thank all who contributed, acknowledging each staff member individually for her or his role in the response effort. The discussion must be as free and open as possible to determine what went wrong, what went right, and why. Stay focused on the topic. Too often, this process turns into a potpourri of after-the-fact justifications and defenses of what people did, rather than a candid assessment of problems encountered or improvements needed.

Avoid finding fault (except in extreme cases) and indicate the institution's desire to learn from the entire experience. Encourage an atmosphere of honest self-assessment by starting with yourself. What could you have done differently? What would have worked better? How could you improve next time? What was learned that could be applied to the next emergency?

Questions to Consider

- **Have you maintained good records of what happened during the event, and have you asked for thorough feedback from all involved persons?**
- **Have you followed up with local authorities to ask for their input on how to make the plan work better in the future?**
- **Did backup equipment (cellular phones, radios, backup generators, portable systems, off-site computer networks) work as planned?**
- **Were the communications systems within the site and with external agencies effective?**
- **Was there a network in place to check on, protect, and attend to staff and visitors throughout the entire site?**[11]

Notes

1. John E. Hunter, "Preparing a Museum Disaster Plan," in *Southeastern Museums Conference, 1991 Disaster Preparedness Seminar Proceedings*, ed. Martha E. Battle and Pamela Meister (Baton Rouge, La.: Southeastern Museums Conference, 1991), 53–66.
2. Jon R. Katzenbach and Douglas K. Smith, *The Wisdom of Teams: Creating the High-Performance Organization* (New York: HarperBusiness, 1993), 119–27.
3. Getty Conservation Institute, "Emergency Preparedness and Response," *Conservation: The GCI Newsletter* 7 (winter 1992), 11–12.
4. *The Emergency Response and Salvage Wheel* (Washington, D.C.: National Institute for the Conservation of Cultural Property, 1997) is a rotating slide chart that provides information on emergency response steps and salvage procedures. It was developed in cooperation with the National Task Force on Emergency Response, an initiative that also involved FEMA and the Getty Conservation Institute. It can be purchased by contacting the National Task Force, 3299 K St. NW, Washington, DC 20007.
5. Robert B. Burke and Sam Adeloye, *A Manual of Basic Museum Security* (Leicester, Great Britain: International Council of Museums and the International Committee on Museum Security, 1986), 77. Reproduced by permission of the ICOM Committee for Conservation.
6. Carl L. Nelson, *Protecting the Past from Natural Disasters* (Washington, D.C.: Preservation Press, National Trust for Historic Preservation, 1991), 111.
7. Adapted from Allyn Lord, Carolyn Reno, and Marie Demeroukas, *Steal This Handbook! A Template for Creating a Museum's Emergency Preparedness Plan* (Columbia, S.C.: Southeastern Registrars Association, 1994), 193–94. Used by permission.
8. Adapted from Council of American Maritime Museums, chap. 9 in *Maritime Museum Emergency and Disaster Preparedness and Recovery Manual* (Manitowoc, Wisc.: Council of American Maritime Museums, 1995), 10–12. Used by permission.
9. Mary H. Lystad, "People in Emergencies," in *Perspectives on Natural Disaster Mitigation: Papers Presented at 1991 AIC Workshop* (Washington, D.C.: Foundation of the American Institute for Conservation of Historic and Artistic Works, 1991), 24.
10. D. Allatt, "Preventive Maintenance in a Museum Facility" (proceedings of the Canadian Museums Association Security Special Interest Group Emergency Planning Workshop, Victoria Memorial Museum Building, Ottawa, Canada, March 25–26, 1986).
11. Gail Joice, "Questions to Ask Yourself When Preparing a Disaster Plan" (AAM Risk Management and Insurance Committee, American Association of Museums, Washington, D.C., April 1994, typescript).

Chapter Summary

This chapter described the importance of communications to the overall effectiveness of the emergency response plan and, ultimately, to the success of your recovery efforts. As EPM, you must look at communications broadly—not solely as a matter of devices but as a way to convey essential information so that it is heard and understood, both during the planning process and in actual emergency situations.

The chapter also

- **identified tasks to help establish communications in an emergency preparedness and response program;**
- **described how to evaluate communications equipment needs;**
- **described the responsibilities of the communications coordinator;**
- **explained how to establish communications procedures for emergency situations and during the recovery; and**
- **described guidelines for dealing with the media.**

CHAPTER FIVE

Training

No emergency plan will be successful if staff and other relevant personnel—such as volunteers—are not properly trained. As emergency preparedness manager (EPM), you must provide guidance and support in making sure employees and volunteers have the knowledge and skills to respond effectively, efficiently, and appropriately in an emergency situation. Drills, debriefings, and training sessions must be conducted regularly. In addition, the psychological impact on employees of emergency preparedness training—as well as that of the emergency itself—must be addressed. As EPM, you must also foster teamwork and team-building skills.

Where do you start? The questions in Table 6 are designed to help you assess the current level of your staff's readiness in the event of an emergency. If you cannot answer at least three of the questions in the affirmative, your employees—and your institution—are not as prepared as they should be.

A year after your institution's emergency plan has been formulated and published, take the test again. It will provide a measure of the progress that has been made. You may be quite encouraged by the results.

Why Training Is Important

> *According to Red Cross information, people normally operate at about 20 percent of their ability to make decisions during an emergency. Therefore, you need to be able to do things in an emergency almost by rote. With training, you can professionally accomplish what needs to be done even if a great deal of your brain is essentially shut down from disbelief, shock, and fear. The first training priority is to involve everybody. This is not just something done by the top administrators or a few people down the ladder who handle security. It is not something that can be done by a person with a megaphone. We need to do this as a team.*
>
> — Barbara Roberts
> Conservator and hazard mitigation consultant

Table 6 **Is Your Staff Prepared?**

	YES	NO	UNSURE
Do all staff members know how to use a fire extinguisher, turn off water and power, and activate alarms?			
Do staff members have enough opportunities to practice the tasks they are expected to perform quickly in a crisis?			
Are staff members encouraged to volunteer for response teams at other institutions that are experiencing emergencies so they can obtain real-life experience?			
Have personnel been taught how to carry fragile objects, and trained to assess when to move collections and when to wait for conservators or art handlers?			
Are volunteers included in emergency drills, playing the roles of injured persons or put in positions where they might have to report on or respond to a crisis?			
Does the emergency plan include lists of staff and volunteers who have gone through first-aid and CPR training?			
Do nonconservators know which objects in the collection are most sensitive to extreme fluctuations in relative humidity?			
Have local police and fire officials been consulted about the institution's special needs? Have they been asked to help with training?			
Are step-by-step directions posted near all emergency equipment, and are staff members aware of their existence?			
Do appropriate persons know where the water shut-off valves are located? What about the electrical switch, fuse panels, or controls for heating and air-conditioning units? Do these individuals know how to safely turn these off?			
Have staff members been assigned responsibility for handling media inquiries during a crisis and received appropriate training?			
Has a team been trained to conduct an initial site survey after the building is determined safe?			
Has this team been trained to document damage to artifacts, equipment, and the building with videotape, photographs, and written observations?			
As a training procedure, have you included a telephone/messenger exercise to locate and notify staff members of an emergency?			
Have staff members been trained in how to handle a bomb threat?			

Why train? The answer is simple: Training can prevent some disasters by preparing you and other staff members to function as efficiently as possible, despite the ensuing chaos. Training also helps cultivate teamwork, a crucial factor in an emergency situation. When people feel they have a stake in the institution, they are more likely to take their responsibilities in an emergency seriously. Being included in the process also allows people at all levels to provide valuable suggestions necessary to the development of a first-rate emergency plan that is tailor-made for the institution.

The message of placing people first must be emphasized, no matter how the training program is structured. In an emergency, saving lives must be the first priority.

Basic training methods include

- group discussions
- simulations/role-plays
- supplementary handouts
- instructional brochures or signs
- videos
- review sessions
- self-assessment exercises
- hands-on workshops
- presentations by experts
- field trips
- mental drills
- full drills

Who Should Be Trained?

Everyone on the staff—administrators, curators, docents, security officers, and custodians—should be prepared for worst-case scenarios. The importance of involving all staff in emergency training can manifest itself in large and small ways. At the Barbados Museum and Historical Society, a new, untrained custodial worker failed to realize the significance of the mold that was forming around an air-conditioning unit in a room containing historical maps. Only when a trained person saw the mold a day or two later was the problem reported to senior management and addressed. "Training helps make people more comfortable with a potentially dangerous situation and psychologically prepared and better organized," says Alissandra Cummins, director of the Barbados Museum.

Most staff members need to practice evacuation procedures, basic object handling, and salvage techniques. At some museums, administrators encourage employees to take training efforts seriously by informing them that emergency preparedness is a priority that cannot be ignored, and that employees who do so could suffer the consequences. That is the approach taken at the Mystic Seaport Museum, which has been battered by numerous blizzards and severe storms and which seems to be hit by a major hurricane every five years or so. "With bad weather always a threat, no one can afford to shirk his or her responsibilities," emphasizes David Mathieson, the museum's supervisor of conservation.

Each spring, the Mystic Seaport Museum's emergency plan is updated. All staff members must update and revise their section of the plan. If the new material does not meet the museum's standards, it is sent back to the appropriate personnel. "If an acceptable draft is not finished by the deadline, the person responsible cannot go on vacation—and this has happened," Mathieson continues. "We take this very seriously." For administrators who favor this approach, he adds, the deadlines for completing the emergency plan could be set to coincide with annual salary evaluations.

As staff members develop skills, keep in mind that a major emergency will bring outsiders to the institution's door with offers of untrained assistance. These volunteers may be community members, military personnel, or other emergency workers eager to help protect, evacuate, or salvage objects. Decide in advance how you are going to use these untrained volunteers. Consider training a portion of the staff to give on-the-spot training.

"Whatever cannot be done in advance has to be done by instructional word-of-mouth by a group of people who were trained beforehand," explains Jerry Podany, head of antiquities conservation at the J. Paul Getty Museum. Basic training can include the following:

- emergency procedures, including fire drills
- employee identification procedures
- last-person-out responsibilities
- security and building procedures during open and closed hours
- responsibilities when issued keys
- locking of safes and high-security vaults
- special-access responsibilities with alarmed areas, key cards, vault or safe combinations, and access lists
- emergency and general information numbers to use
- first aid and CPR
- security/fire/safety inspections and responsibilities
- occupational safety
- reporting procedures for observed safety hazards
- object handling and protection procedures

Where to Start?

> *One of the most effective things we can do to prepare for emergencies is to provide ourselves with training and an increased awareness of disaster response.*[1]
>
> — The Getty Center
> "Emergency Planning Handbook"

To many, fire drills are a joke. Ever since we were young, we have participated in emergency evacuation exercises without really thinking about what would happen in an actual emergency. This passive attitude has become a habit that must be broken. Many people are apathetic toward emergency preparedness and response training. That is what the administrators at the Seattle Art Museum discovered when they launched an ambitious training program. "At the start, we had trouble getting people to take this seriously," says Gail Joice, the museum's senior deputy director and registrar. "There is an initial resistance, a fear of the unknown, and some people are in denial."

Therefore, the first task you, as emergency preparedness manager (EPM), face in training is to engage staff members. You may wish to start your effort on the anniversary of an emergency, just to give staff and the community more

reasons to take the emergency preparedness and response training seriously. Take care, however, to dispel the fears that will naturally occur when you ask people to contemplate the worst. The following activities will cost little or no money, while making those who participate feel they are part of a team:

Task 1: Carry out a general cleanup.

Task 2: Teach staff to be keen observers.

Task 3: Bring in other experts to teach certain skills.

Task 4: Conduct a basic fire extinguisher lesson.

Task 5: Expand the fire drills.

Task 6: Test the notification system.

Task 7: Encourage staff to bring emergency preparedness home.

Task 8: Teach staff members how and when to handle objects.

Task 9: Make emergency-related mental drills a common occurrence.

Task 10: Conduct planned drills.

Task 11: Anticipate psychological impact.

Task 12: Build the team.

Task 13: Record and critique.

Task 14: Evaluate the training program.

Task 1

Carry out a general cleanup

As a team project, get staff members involved in throwing out rubbish. This exercise serves as a morale booster and also reduces the hazards every cultural institution faces. In fact, most museum emergencies are caused or worsened by inferior housekeeping, poorly maintained equipment, or improper use of the building. Once the debris is gone, people can put the empty spaces to better use. The cleanup also helps people become more acquainted with the layout of the institution, including escape routes that might be needed someday.

Recommend that staff members wear jeans or old clothing for the cleaning. The casual atmosphere will make them more receptive to listening to basic safety precautions. The following is a sampling of the safety tips you can impress on staff during this exercise:

- Do not store anything near heating vents or boiler rooms.
- Store heavy objects on lower shelves.
- Avoid placing items directly underneath water pipes.
- Store paints, chemicals, and cleaners in well-ventilated, fireproof cabinets.
- Keep motors free of dust buildup, and make sure appliance cords are in good shape.

- Check trash receptacles at the end of the day for smoldering materials. Empty them every night.
- Store works of art and artifacts in closed containers or protective bags made of chemically inert materials, which provide air circulation and filter out particulates.
- If the institution is in a seismic area, secure or strap down computers, fax machines, computer scanners, bookcases, and other office equipment to the walls or furniture. If securing to a wall, make sure to drive the attachment into a stud.
- Unplug electrical equipment, such as dry-mount machines, tacking irons, and portable electric heaters after use, and be careful as to where heat-producing equipment is stored.
- Unplug computers during thunderstorms or if a storm is forecast for that night, and change surge protectors every three to four years.

Task 2

Teach staff to be keen observers

A clerk in the gift shop spots a dark stain on the ceiling, indicative of a water leak. An information desk volunteer notices a visitor acting strangely in the entryway or waiting area. A maintenance worker discovers a pile of trash left by construction workers near a heat vent. Each person noticed something unusual that had the potential to become an emergency situation.

Staff members must be empowered to report their observations and be made to understand that this is considered part of their job duties. Provide training in observation techniques. Volunteers also must be instructed in basic security measures, as they can provide a vital link in the security chain. Consult members of the safety and security team for more training ideas.

Task 3

Bring in other experts to teach certain skills

An easy way to reduce some of the training burden for an institution is to turn to organizations that specialize in emergency preparedness.

Other cultural institutions. There is no sense in reinventing the wheel. Take advantage of the expertise of other institutions that already have developed training programs. Keep in mind that every emergency plan will be unique, and not everything one institution does will be applicable to yours. Consult directors of other cultural institutions that have suffered emergencies. Find out what worked and what did not work for them.

The Red Cross and local ambulance services. These groups can provide training in CPR and first aid.

Fire department. Firefighters can teach staff how to use fire extinguishers and to make sure extinguishers are regularly serviced and in working order. Fire inspectors also can identify potential fire hazards in the buildings and on the grounds and explain how these hazards could be diminished. In addition, fire personnel can test the available water pressure.

U.S. Army Corps of Engineers (or a comparable government agency). The Corps will know if the museum is on a floodplain. It also can calculate the level the water is likely to reach. If the museum is in a flood-prone area, ask how staff should be trained in filling and using sandbags properly.

Police department. Talk with authorities about how you should train personnel on handling bomb threats or acts of vandalism. Provide police with the security plan, location maps, and, possibly, keys.

Local businesses. Training and emergency preparation requires money and supplies. Do not be afraid to solicit donations from local businesses and corporations. A computer company donated Styrofoam packing materials to the Barbados Museum and Historical Society. In addition, a lumber company provided free wood and cut it to specification to make protective shutters, and another source donated heavy-duty boxes for moving the collection. "Usually people are happy to give. They'd rather give for emergency preparedness than wait to hear from us when we are totally devastated and needing tens of thousands of dollars," says Alissandra Cummins, director of the Barbados Museum.

Weather bureaus. Keeping in touch with weather forecasters is essential during seasons of inclement weather. A member of one of the preparedness teams should be assigned to develop direct contacts with bureau staff and learn the routine for weather-related warnings and alerts.

Ham radio operators. Find out whether any employees are ham radio operators. If not, train interested staff members how to contact sources of help by radio.

Insurance carriers. Insurers can provide free inspections and advice. Arrange for committee members and other relevant staff to be present during an inspection.

Task 4

Conduct a basic fire extinguisher lesson

Like the general cleanup activity in task 1, this exercise will call for another "blue jeans" day. Ask staff members to meet in the parking lot or another appropriately paved area at designated times. Arrange for firefighters to teach them the proper way to use a fire extinguisher (Fig. 4). You may be amazed by the number of people who do not know how to perform this simple technique. Any lesson on using a fire extinguisher or other equipment should follow these guidelines:

- Provide a step-by-step description of the procedure, using illustrations where appropriate.
- Provide a follow-along demonstration.
- Provide periodic opportunities to practice.
- Teach the thirty-second rule: If the fire cannot be put out in thirty seconds with a fire extinguisher, stop trying, and evacuate as quickly as possible.

Ask people to describe the locations of fire extinguishers throughout the building. Perhaps give a prize to the person who can name the highest number

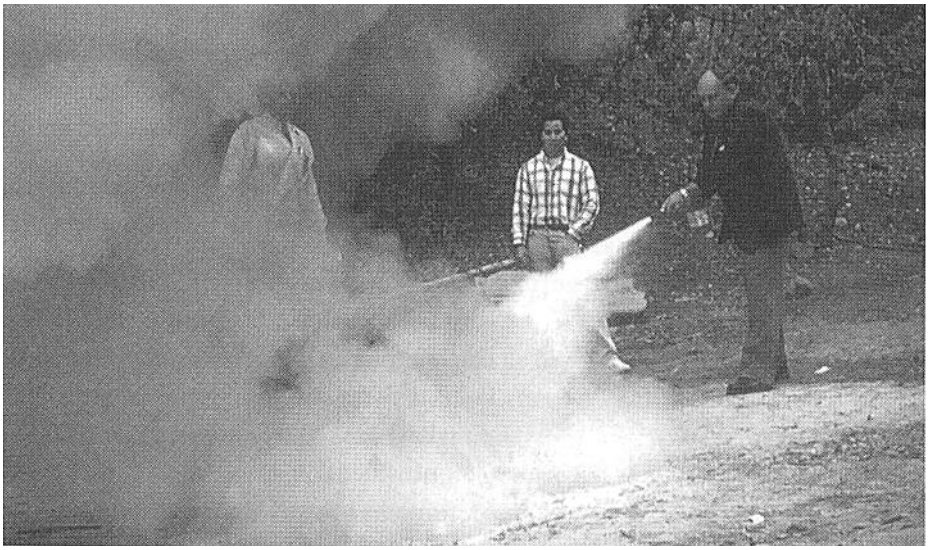


Figure 4 Staff of the J. Paul Getty Museum participating in a fire-extinguisher training session. Photo: Brian Considine.

of locations. This exercise could inspire a constructive debate over whether extinguishers are located in the most convenient, accessible spots. Have the building's interior and gallery spaces been modified since the extinguishers were first hung? Be sure that fire extinguishers and fire blankets are kept at strategic locations throughout the building, such as on every floor and near doors and exits.

Also, discuss who will be responsible for ensuring that the rechargeable fire extinguishers and smoke detection equipment are maintained and tested on a regular basis, as mandated by the local fire department. This person or committee should determine the appropriate type of rechargeable fire extinguishers to have on hand, such as water-based, carbon dioxide, Class A, or Class B. This responsibility should be included in staff job descriptions.

Fires are categorized in three ways: Class A fires are fueled by ordinary combustibles, such as wood, paper, and textiles. Class B fires feed on flammable materials, such as oil-based paint and solvents. Class C fires are triggered by energized electrical equipment, including appliances, wiring, and fuse boxes. High-pressure water extinguishers will put out Class A fires but can cause water damage. Extinguishers using a very fine water mist are now available. Carbon dioxide extinguishers put out Classes B and C fires; they are recommended when fragile materials are involved, but the gas can damage glass. Dry chemical extinguishers (ABC), which leave a powdery residue, can be used on all three classes of fires.

The employees responsible for the fire extinguishers also may be the ones who periodically inventory and reorder emergency supplies. Dry-cell batteries, for instance, need to be periodically replaced.

Consult the safety and security and the buildings and maintenance teams for more suggestions on emergency equipment that staff should learn to use.

Task 5

Expand the fire drills

Fire drills can be mundane and fail to leave an impression, as all of us can recall from our school days. When training staff, it is helpful to turn a routine drill into a more challenging exercise. Before the drill begins, block a stairway that people ordinarily would use; this will force them to determine, on the spot, the next best way to flee the building. Have a staff member feign injury—perhaps a broken leg—and encourage colleagues to figure out how to evacuate that person. Finally, arrange for an employee to hide inside the building. When the rest of the staff members have assembled outside, see if anyone notices the person's absense.

Exercises like these help build quick-thinking skills and emphasize the need for preparedness. It will become clear, for example, how important it is to store first-aid kits in visible or easily accessible areas, and to implement a system to help determine whether all staff members have been evacuated.

Task 6

Test the notification system

On a weeknight, ask a few staff members to stay after hours. They are to phone every employee and volunteer and say, "This is an exercise. If there were an emergency at the museum right now, would you be willing to come down here to assist? How long would it take you to arrive?"

The first time that staff members at the J. Paul Getty Museum tried this exercise, they discovered that 10 percent of the employee home telephone numbers were wrong. The exercise not only gave administrators a more accurate idea of how far people lived from the museum and who would be able to assist in an emergency, but also indicated the need to keep the list of staff addresses and phone numbers up to date.

For staff members who do not have telephones at home, the exercise would have to be modified. Several employees could be dispatched to the homes of these colleagues. During the drive, they could note how long it would take to reach the museum during an emergency.

Task 7

Encourage staff to bring emergency preparedness home

> *Even if staff are unable to leave due to impassible roads or the like, being prepared at home will provide some peace of mind so that they may be able to concentrate on the task at hand.*[2]
>
> — Wilbur Faulk
> Director of Getty Center Security
> The J. Paul Getty Trust

One of the most powerful ways to motivate personnel to fully participate in crisis planning is to assist them in being prepared for an emergency at home. Focusing on staff members and their families makes employees feel that the institution genuinely cares about them. It also forces them to face the reality that the lives of people very dear to them could be endangered by a failure to be prepared.

The Seattle Art Museum conducted earthquake workshops that provided practical advice on how to prepare for an earthquake. The museum also

bought first-aid kits in bulk, along with food-grade water barrels, which staff in turn could buy quite cheaply for use at home. "We found the whole training process less daunting by implementing this effective way to get the staff engaged," Gail Joice points out.

If staff members are prepared in their own homes, they will be more likely to be devote extra attention to the institution's needs during a crisis. "When we started the process of emergency planning, we asked each staff member: Do you have the emergency booklet issued by the national committee for emergency preparedness? Do you know where your emergency shelter is? About two-thirds weren't aware of either. One of the things we put in place was to remind staff of these resources," says Alissandra Cummins.

Task 8

Teach staff members how and when to handle objects

Not every employee knows the proper way to handle damaged items in a museum collection. During an emergency, the impulse to save valuable objects will be strong, and staff members should understand that their untrained actions could actually harm these objects. Coordinate collections-related training issues with the collections team, in accordance with the guidelines developed as part of their contribution to Report 2 (see chapter 7, task 3, pages 158–60).

Collections staff should instruct colleagues in what to do on the scene of an emergency, including handling procedures and basic salvage techniques.

Task 9

Make emergency-related mental drills a common occurrence

> *You gradually come to realize that this whole process of emergency preparedness is almost like another operation. The only way to deal with it is on a daily basis.*
>
> — Alissandra Cummins
> Director
> Barbados Museum and Historical Society

Are you ready to make tough choices? A good way to prepare is through mental drills. Mental drills are simple to do and cost nothing but are an important part of the training process. While setting the scene of an emergency, these drills can reveal gaps in the best-laid contingency plans. They also can prompt you to find answers to problems that might never have occurred to you, to the emergency preparedness committee, or to your team colleagues.

By conducting a mental triage drill, followed by roundtable discussions, a priority list of action items emerges through consensus. This list should be posted in each department and given to appropriate personnel. A copy should be stored in a safe, secure location. At some institutions, every object and collection is ranked and labeled according to importance; this helps to ensure that the most valuable items will be saved should persons unfamiliar with the collections arrive on the scene. Some experts recommend that the objects most threatened by such hazards as water, fire, or chemicals be saved first. The collections team is responsible for establishing this procedure in advance.

In a mental drill, an unlimited number of scenarios can be visualized. Following are five ideas:

Scenario 1: An earthquake hits while the museum is holding an indoor concert. Should all guests be escorted out, or should some be enlisted to help? What are the first priorities?

Scenario 2: During a hurricane, a collections storage room fills with water. The electricity is still on, and the electrical sockets are submerged in water. Will you get electrocuted if you enter? What should you and your colleagues do?

Scenario 3: It is 6 P.M., and you are one of the last people to leave the building. You smell smoke but hear no smoke alarm. Has the alarm malfunctioned? As you investigate, the smell of smoke becomes stronger as you approach a gallery. What do you do?

Scenario 4: Fire has broken out. The lights go out, four exits are blocked by fire, and someone has fallen and sustained a back injury while running down the stairs. What should happen next?

Scenario 5: A crazed person shouting obscenities begins slashing paintings and splashing works of art with an unknown liquid. How should you react?

Task 10

Conduct planned drills

Conduct your first drill after staff members have been given an opportunity to develop an understanding of the program and to adequately rehearse any new skills related to the emergency plan. For greater impact, try to schedule the drill near the anniversary of an emergency that is well known in your community.[3]

— Wilbur Faulk
Director of Getty Center Security
The J. Paul Getty Trust

Planned drills do not come in a one-size-fits-all format, and there is no single correct way to hold one. Keep your first drill short and simple. The drills can increase in length and complexity as staff members become more sophisticated in emergency preparedness and response activities. Tailor the drills to the types of emergencies common to the institution's geographic area.

The following are guidelines for planned drills:[4]

- Do not wait until the plan is completely written before holding the first drill. Stay up to date on the progress of the EPC and the departmental teams. One priority of the drill is to help you find the holes in the plan as it is being developed.
- The drill should teach success, not failure; build confidence, not apprehension.

- Use the EPC's vulnerability assessment report to identify the most likely emergency scenario and build a drill around that. If your facility is in a hurricane zone, do a hurricane drill. If brush fires are a major threat, do a brush-fire drill.
- Hold drills during the appropriate time of year. For instance, an ideal time to hold a tornado drill is in the late winter or early spring.
- Focus on life safety. Use triage to create realistic injuries and deaths in order to test first-aid and CPR skills. Enlist a few department heads to play roles of injured visitors so that subordinates become accustomed to the idea of making decisions on their own.
- Include opportunities to test fire extinguisher training, movement in emergency situations, use of special tools and equipment, and ability to shut off utilities.
- Keep the details of a planned drill secret. This will ensure an element of surprise that normally would be found during an emergency.
- At each drill, assign a few staff members to observe and evaluate the exercise.
- Have the appropriate response team member(s) document the drill with photos and video, which you can use later as training tools or in emergency preparedness grant proposals or fund-raising campaigns.
- Create public awareness. Pass out flyers about the drill to visitors and include a free pass for another day's visit to the museum or institution.
- During a post-drill debriefing, allow the team members to evaluate the drill, identify what worked well, and find any flaws in the emergency plan. Have them also identify any additional needs for training. Discuss any psychological impact the drill had on participants.
- Do not expect the first drill to go well, but expect to learn from it.

Drills should be built on the problems and solutions identified during mental drills. Do not be surprised if the tidy solutions suggested during brainstorming sessions do not work during a real drill. That, after all, is one of the purposes of the exercise.

Full drills not only help keep staff alert, but also can assist an institution in detecting holes in its emergency plan. At the Barbados Museum and Historical Society, for instance, the staff had mentally gone over the steps needed to protect glass cabinets containing rare historical papers in a hurricane. But during a drill, the staff discovered that attaching the pine shutters to the cabinets took far too long after a hurricane warning. Consequently, the museum now keeps the shutters in place during hurricane season. "The cases look unattractive, but who cares?" Alissandra Cummins says.

Use of props during a full drill adds a sense of reality to the exercise. For instance, put a dozen soaked books in the library, a sopping rug in a gallery, or chipped ceramics in a display case. If these items were real objects from the collection, how should people handle them?

Make sure each employee has the opportunity to play a key role. People need to be trained to know what their jobs are during an emergency, as well

as what other's jobs are, since emergencies will not always happen when all key members of the emergency response team are at the facility. An institution needs backup people for every important job. The best way to become familiar with a task is to act it out. According to a U.S. government publication, *Organizational Behavior in Disasters and Implications for Disaster Planning:*

> A frequent error in emergency planning is that planners forget that they will have to orient, train or educate others (e.g., people and groups) relative to their respective roles under disastrous circumstances. Knowing the role/responsibilities of a few key officials and planners, or the organization, is not enough. The counterpart roles of others must be clear to facilitate coordination and an integrated emergency response. Of necessity, this requires teaching others what is or will be expected of them.[5]

Drills can help identify which staff members perform best under pressure. It is not necessarily the people one normally would expect. Some people may panic and be unable to carry out their responsibilities. When assigning jobs in anticipation of a real emergency, utilize those who have stood out during drills. Some examples of planned drill scenarios are as follows:

> **Scenario 1:** A demonstration of college students has turned violent in the streets a block away from the museum. Sirens and explosions can be heard. A group of schoolchildren is in the museum at the time, and neither the school bus driver nor the bus is to be found. A small group of benefactors, many of them senior citizens, are meeting in the library. Ask staff: When would you close the museum? What would you do with the visitors? Who will take care of them? What should be done to protect the building and the collection?
>
> **Scenario 2:** Due to rainfall in the mountains, a nearby river is slowly rising. Experts say it could rise to levels not seen in a hundred years. Within two days, the first floor of the main building may be under water. Ask staff: What should you move? Who will do the moving? Where will you store objects in the collection? What supplies are needed to treat water damage?
>
> **Scenario 3:** An earthquake causes a power outage. The museum director, a conservator, and three visitors are trapped in an elevator. The facility is dark, and the backup generator is not working. A small fire, caused by a broken gas main, is threatening a gallery. Ask: Do you know how to activate the alarms and automatic fire suppression devices? How will fire officials be notified? Will phones work without power? How will you rescue the people in the elevator?
>
> **Scenario 4:** During a hurricane, gale-force winds have shattered windows in the galleries, and three people have been badly cut by the flying glass. Who will care for the injured people? Where will first aid

be performed? In the meantime, the collections are getting wet from the incoming rain and the electricity is out. What should be done first? Should the windows be covered? With what? What objects should be moved? How will you move them? Who will move them?

Scenario 5: Smoke or, if applicable, volcanic ash is seeping into the building. Should vents be closed or opened? Who knows how to close them or shut off the gas and electricity? What else should be done?

Do not worry about creating a drill scenario that is too outlandish. As Vance McDougall of the National Museums of Canada pointed out at a 1986 emergency planning workshop:

> Remember, emergencies occur at the worst possible time, in the worst possible place, under the worst possible conditions. . . . Always critique your drills against all possible situations regardless of how remote their occurrences may seem. Never permit yourself to become complacent. When everything seems to be going well, that should be regarded as the first danger signal. BEWARE![6]

At the Mystic Seaport Museum, administrators arranged to have their communication system upgraded on a weekend when no bad weather was expected. Sure enough, Hurricane Bob hit while the museum had no phone service. Staff grabbed fistfuls of quarters from the admission proceeds and made calls at pay phones across the street. "When the storm calls, your director will be on the West Coast, and your plant manager will be in the hospital undergoing surgery. Then the hurricane will hit. I will guarantee it," notes David Mathieson.

Task 11
Anticipate psychological impact

> *Employees, volunteers, and others may experience secondary injuries—emotional injuries—following a disaster.*[7]
>
> — The Getty Center
> "Emergency Planning Handbook"

The Getty Center "Emergency Planning Handbook" discusses the progression of responses that may be experienced by individuals after an emergency. Six stages are identified:

1. Impact of the event (at the time of the event)
2. Shock (24–48 hours after the event)
3. Suggestibility (1–3 days after the event)
4. Euphoria (1–2 weeks after the event, during the initial response phase)
5. Ambivalence (when the critical response phase passes)
6. Reintegration (2–9 months after the event, when the routine returns to normal and the environment is stable)

Several types of follow-up steps are suggested to help staff members deal with the psychological impact. These include providing outside counseling, being aware of changes in staff responses, setting up support groups, providing a debriefing within forty-eight hours after an emergency—which all staff members are required to attend—reorganizing work schedules as necessary, and reestablishing normal operations as soon as possible.

The psychological impact of emergencies and disasters should be addressed in training exercises. Set aside debriefing time after a full drill or a real emergency for staff members to talk about their experiences. Ask people how they are feeling. Drills can become total mayhem and will inevitably agitate and worry some people. In addition to holding roundtable debriefings, consider installing a suggestion box so that the more reticent staff members can share their feelings, comments, and observations.

Task 12
Build the team

Over time, each person has recognized that his or her individual experience has had an impact on the museum's experience. The staff is empowered. They have become more confident of themselves and their skills.

— Alissandra Cummins
Director
Barbados Museum and Historical Society

By conducting full drills and doing the exercises suggested in this chapter, you will be giving staff members the opportunity to work together and hone their teamwork skills. Cross-departmental training is another method of building the team. For example, the maintenance staff can teach conservators how to turn off the water and power. Preparators and conservators can teach janitors how to carry works of art and artifacts. Registrars can share information about accession numbers and the proper marking of boxes.

Building a successful team means taking risks involving conflict, trust, interdependence, and hard work. The following guidelines, adapted from Katzenbach and Smith,[8] will help:

Select members based on skills, knowledge, and attitudes. Recruit people on the basis of three categories of relevant skills: technical and functional, problem solving, and interpersonal. All efforts at team building should focus on the process and on accomplishing the intended tasks. One way to foster commitment is to involve as many people as possible in the emergency preparedness and response program. Identifying "true believers" in emergency preparedness and inviting them onto the team helps craft the proper atmosphere.

Emphasize urgency, direction, and clear rules. The more urgent and meaningful a team's purpose, the easier it is to evolve into a well-functioning team. Emergency preparedness certainly carries the element of urgency, but you may face some heavily entrenched disbelief, which is often based on fear of the unknown. Emphasize urgency without scaring people.

Be clear about your expectations of the team. If your goals and rules are not focused, neither will be the team's work. Enforcing the rules lends credibility to the team. Consider putting into place rules involving the following:

- attendance (e.g., no interruptions to take phone calls)
- discussion (e.g., no forbidden topics)
- confidentiality (e.g., what we discuss here stays within the group unless another option is agreed on)
- analytic approach (e.g., facts are friendly)
- end-product orientation (e.g., everyone gets assignments and does them)
- constructive confrontation (e.g., conflicting views build strength)
- contributions (e.g., everyone does real work)

Be aware of your actions. Leaders set the tone. Convey to team leaders the seriousness of your commitment by devoting time to the process and freeing up time for team members to do their work. Team leaders will pick up on your patience and persistence and pass it along to their respective team members.

Set immediately achievable goals and tasks. Establishing a few challenging *yet achievable* goals that can be reached early on can bring a team together and instill a sense of early accomplishment that sets the pace. Be sure to include in the performance goals a clear "stretch" component, or challenges that your team may initially regard as "virtually impossible, if not crazy."

Inject fresh facts and information. Do not let the teams assume that all the information needed exists in their collective experience and knowledge. You can enrich their approach, even startle them into action, with new information. For example, you might bring in a research paper that shatters myths about how people act in emergencies, or a list of new protection techniques.

Schedule debriefing time. Encourage team members to talk with each other in a more casual, personal way after every session. This is the time for members to relax, reflect, and express their fears or concerns. Debriefing allows teams to bond and helps individuals move on without fear.

Exploit the power of positive feedback, recognition, and reward. Positive reinforcement works as well in a team context as it does elsewhere. Even the strongest egos respond to positive feedback, as long as it is genuine. Although satisfaction in the team's performance ultimately becomes the most cherished reward, teams appreciate sincere recognition.

Task 13

Record and critique

Keep thorough written and photographic records of what happens during full drills and any executions of emergency procedures. Then subject the emergency plan and performance of all participants in emergency operations to a candid critique as soon as possible after operations have returned to a semblance of normalcy. Encourage feedback from all involved persons through written reports, interviews, and group meetings. What went well? What did not work?

Task 14

Evaluate the training program

All training activities should include some form of evaluation. Did participants enjoy the training program? Did they think they learned anything? What did they like or dislike? Do their supervisors believe they obtained new skills? Through surveys, questionnaires, focus groups, and roundtable discussions regarding the training activities, you will gather information that will help you make improvements. Be sure to measure *reactions* and *learning*.[9]

Reactions. Measure trainee reactions to training activities. "The more favorable the reactions to a program, the more likely trainees are to pay attention and learn the principles, facts and techniques discussed."[10] Make the comment sheet anonymous to encourage honest reactions and allow trainees to make additional comments not covered by the questions.

Learning. Measure the knowledge acquired, skills improved, or attitudes changed due to training. Build evaluation into the training by setting up before-and-after situations in which trainees demonstrate whether they understand the principles or techniques being taught. If facts are being taught, conduct a paper-and-pencil test.

Questions to Consider

- **Who will carry out the initial training?**
- **Once trained, can staff train colleagues or new employees?**
- **How often should training be repeated?**
- **Who is responsible for keeping training updated?**
- **Are staff members trained in what to do in situations requiring actions beyond their routine or their level of skill?**
- **How will you keep track of which staff members have learned first aid, know how to use emergency equipment, or know how to handle cultural objects during an evacuation?**
- **How will the training efforts be evaluated?**
- **Are trustees included in the training exercises? Neighbors? Friends of the institution? Volunteers? Other sections of the local community?**
- **If there are no conservators on staff, have you talked to employees about what immediate measures to protect the collection will be allowed at the disaster site before a conservator arrives?**
- **Is there a forum through which employees may comment and voice their reactions during and after the training process?**

Emergency Preparedness and Response Training Suggestions

Table 7 lists guidelines for emergency preparedness and response training activities. Consider these guidelines when you plan and when you evaluate training exercises. They will help staff members personally identify with the emergency preparedness and response program.

Table 7 **Guidelines for Training Activities**

Guideline	Example
Engage the staff and volunteers in discussions and situations in which they confront dilemmas regarding emergency response and emergencies in general.	"Let's talk about hurricanes. Does anyone have a particularly powerful memory of a hurricane? Why is it so memorable? Were you prepared for it? Did you have the supplies and equipment you needed? Did you lose anything of value? What did you not expect?"
Allow active participation, such as role-playing opportunities. Create situations in which staff can reflect on the challenges and advantages of being a part of a team.	"We are going to do a role-playing exercise in which we take turns playing the role of the reporter and the spokesperson. Here is a data sheet with the facts about a late-night fire that the institution just experienced, and a fact sheet on the institution's emergency plan. Who would like to go first?"
Anticipate adversity in emergency preparedness.	"As you go about your regular job, what obstacles do you encounter as you try to complete tasks related to the emergency preparedness process? Do you have the time? The resources needed? Has anyone figured out a clever way to build these tasks into their day?"
Show the connection between emergency preparedness and participants' jobs.	"As you know, emergency planning is being built into each of your job descriptions. It is a priority identified by the director. I know the idea of emergencies makes some of you uncomfortable, but it is a reality that we need to deal with. We want to protect lives and the collection."
Provide instructional materials, ongoing learning opportunities, and performance support.	"Here is a handout that walks you through the operation of the new walkie-talkies. Read through it first, and then we will practice using them. The handouts will be stored with the walkie-talkies. In the future, we will sometimes start our meetings using walkie-talkies to communicate, just for practice."
Give employees plenty of opportunities to practice the skills they are expected to perform in the frenzy of a crisis.	"Next Monday we will do our annual fire-extinguisher exercise. All of you have done this before, right? If you have not, please see me after this meeting. The rest of you, please review the fire-extinguisher operation instructions between now and the exercise."
Help employees acquire new skills and knowledge by creating situations in which learning can occur within realistic contexts.	"John is going to walk you through our procedures for treating wet books and tapestries. In our emergency drill next month, some of you will need these skills."
Provide feedback so trainees know what they are doing well and where they need to improve.	"Judy, you played the role of the spokesperson very well in that exercise. You answered Jim's questions when you could and deferred to emergency officials when appropriate. Remember that you do not have to rely on memory when explaining the emergency plan. You have a fact sheet to hand out."
Provide incentives—rewards, recognition, or remuneration—to elicit, improve, and maintain emergency planning efforts.	"Phil, who put the collections team in touch with a conservator who specializes in salvaging water-damaged books, has won the emergency preparedness employee-of-the-month award. Congratulations!"

Notes

1. Getty Center, "Emergency Planning Handbook" (J. Paul Getty Trust, Los Angeles, 1997, photocopy).
2. Wilbur Faulk, "Organizing, Preparing, Testing, and Revising an Emergency Planning Program" (J. Paul Getty Trust, Santa Monica, Calif., Feb. 1993, typescript).
3. Wilbur Faulk, "Are You Ready When Disaster Strikes?" *History News* 48 (Jan./Feb. 1993), 9. Used by permission of the American Association for State and Local History.
4. Adapted from interviews with the experts who advised on the compilation of this book, and from Faulk, "Organizing, Preparing, Testing."
5. Enrico Quarantelli, *Organizational Behavior in Disasters and Implications for Disaster Planning*, Monograph Series, vol. 1, no. 2 (Emmitsburgh, Md.: National Emergency Training Center, 1984), 29.
6. Adapted from Vance McDougall, "Museum Security, Fire, and Safety Emergency Plans" (paper presented at the Security Special Interest Group Emergency Planning Workshop, Canadian Museum Association, Ottawa, Ontario, Canada, March 25–26, 1986), 6–7. Used by permission.
7. Getty Center, "Emergency Planning Handbook."
8. Jon R. Katzenbach and Douglas K. Smith, *The Wisdom of Teams: Creating the High-Performance Organization* (New York: HarperBusiness, 1993), 119–27.
9. Donald Kirkpatrick, "Great Ideas Revisited: Techniques for Evaluating Training Programs," *Training and Development* (Jan. 1996), 54. Used by permission.
10. Ibid., 56. Used by permission.

Chapter Summary

This chapter

- **explained why training is crucial to the emergency preparedness and response effort;**
- **recommended training topics and suggested who should present these topics and who should receive specific training;**
- **provided suggestions for emergency response drills; and**
- **described mental drills and explained their importance in emergency preparedness.**

Over time, each person has recognized that his or her individual experience has had an impact on the museum's experience. The staff is empowered. They have become more confident of themselves and their skills.

— Alissandra Cummins
Director
Barbados Museum and
Historical Society

Part III

For the Departmental Team Leaders

Overview

This part, which consists of chapters 6–9, is a resource for the four departmental teams—safety and security, collections, buildings and maintenance, and administration and records—that work with the emergency preparedness committee to develop a comprehensive emergency preparedness and response program. Part III is designed to help team leaders create an organizational and procedural structure in which the process of planning, assessment, and review of the emergency plan becomes part of the regular routine.

Each chapter that follows is to be distributed to the appropriate team. As the teams work through their chapters, they may refer to Table 5 (chapter 2, page 30) for a breakdown of the planning process. The questions in the test in Table 4 (chapter 2, page 28) provide a guideline for assessing the institution's level of preparedness. Figure 2 (chapter 3, page 51) diagrams the organizational structure of the program.

Although each of the following chapters is addressed to the departmental team leader, those in support positions also must be fully familiar with the leader's role in the process. If your institution does not have the four specific departments listed, the emergency preparedness committee should divide the responsibilities accordingly.

Chapters 6–9 explain the role of each departmental team in the emergency preparedness and response program; explain how to assess the needs of the program; suggest what leaders need to think about and ask to determine appropriate prevention, preparedness, and response measures; identify the content of the two reports each team will develop for the emergency preparedness committee; and explain the role of each departmental response team in an emergency.

Each chapter includes "Questions to Consider" to assist in the planning process and "Suggested Exercises" to help you relate the material to your institution.

For an overview of the emergency preparedness and response program, please consult chapters 1–3. For training ideas, see chapter 5.

CHAPTER SIX

The Safety and Security Team

As the institution builds an emergency plan, safety- and security-related issues must be addressed. This chapter is designed to serve as a resource for you, the leader of the safety and security team.

Your Role in the Process

Of all the departmental teams, safety and security has the most important responsibility: to save lives and prevent or reduce injury. You and your team will do this by putting into place—if not in place already—a system of rules and practices that make the museum less vulnerable to accidents and better equipped to respond to an emergency.

Saving the collection is not this team's top priority, and you may have some difficulty convincing other staff members of this. Remind them that by working to make the institution safer for people, a system and structure will be developed that makes the collection less vulnerable to theft and other threats.

The team's job is to thoroughly evaluate the safety and security procedures currently in place, identify where the institution is vulnerable, and produce two reports to the emergency preparedness committee (EPC) that summarize its findings:

Report 1 is a vulnerability and asset analysis that recommends preparedness and protection measures; that is, what should be done to prevent the loss of human life in the event of an emergency and to reduce damage to the security aspect of the institution's functions. (See pages 114–20.)

Report 2 is an outline of response procedures and techniques, including the role of the safety and security response team during an emergency. It should include a list of equipment and supplies needed, as well as a list of any hazardous materials stored on-site. (See pages 120–37.)

Two tasks are necessary to begin the process of compiling this information and developing your team's portion of the emergency preparedness and response plan.

Task 1: Assemble the preparedness team.

Task 2: Interact with other teams and with the EPC.

Task 1

Assemble the preparedness team

Security staff regularly review the plan, pointing out the gaps and deficiencies. They have helped us develop realistic scenarios based on their experience. They are part of a general consultative process developed to empower all staff in their particular roles. They are of considerable importance in determining what preventive measures should be put in place, through their observations on the status of the buildings, equipment, and so forth. One member also is appointed to each of the six core response teams.

— Alissandra Cummins
Director
Barbados Museum and Historical Society

Suggested Exercise

To get team members thinking about how familiar they are with their surroundings, blindfold them and take them to any part of the institution. Tell them there has been an earthquake or a hurricane, the power is out, and they cannot see and cannot use the elevators (or a similar scenario). Remove the blindfolds. Rope or block off a stairwell or door beforehand so they will have to figure out an alternate escape route. In addition, one person has an injured leg and will need to be carried out. After the exercise, hold a debriefing session. Support and reassure those who were shaken by the experience.

You are in charge of appointing the safety and security team and of guiding team members in gathering accurate, efficient information and in organizing a well-coordinated response to any emergency. Building a successful team means taking risks that involve resolving conflict, establishing trust, and encouraging interdependence. Refer to chapter 5 on training for information on assembling and building effective teams.

Select team members on the basis of three categories of skills: technical and functional, problem solving, and interpersonal. All efforts at team building should focus on the process and on accomplishing the intended tasks. Communication skills are important, as your team will be interacting with nearly every department in the institution. Involve other members of the department in the planning process so they will more readily support the recommended changes in policy and procedures. Identifying and appointing "true believers" in emergency preparedness will help generate enthusiasm and create the proper atmosphere. Include "nonbelievers" as well, to forge a well-balanced, cohesive unit that enables all members to do the best they can.

As part of the recommendations in Report 2, you and your team will describe the roles and responsibilities of the safety and security response team, which may or may not include all members of the preparedness team. This team, along with a team from each of the other three departments, will respond in an actual emergency situation.

Task 2

Interact with other teams and with the EPC

To produce the two reports for the EPC, you and your team must work closely with the three other departmental teams in certain areas, as indicated below.

Collections

- Setting guidelines for relocating or evacuating objects
- Identifying emergency shelters

Buildings and maintenance

- Establishing evacuation routes for people
- Establishing evacuation routes for collections
- Determining preventive building maintenance
- Identifying and preparing emergency shelters
- Housekeeping in collaboration with the collections team

Administration and records

- Setting guidelines for relocation or evacuation
- Resolving administrative and legal issues regarding relocating and evacuating people and property
- Documenting activities

In collaborating with other teams, work through the EPC to set up meetings between your team and the others. This hierarchical method helps avoid territorial disputes that can occur during the process. It becomes a top-down mandate rather than a lateral agreement. You may want to include a member from the EPC during these meetings.

When needed, include a member of the other departmental teams, as applicable. This works well as long as the team is discussing matters that pertain to this person's area of expertise. If discussions cover areas specific only to safety and security, it can be a waste of time for the person from the other team.

This collaboration is required for the overall success of the emergency preparedness and response program and may require a shift in attitudes on the part of colleagues. According to *A Manual of Basic Museum Security*:

> Too often the importance of the guard in the total scheme of the museum has been overlooked, and no effort to train guards or to upgrade their quality and status is undertaken. Guards have been recruited from the ranks of the unskilled, unemployed, and retired; or the museum simply contracts with the security agency. In both cases, the guards are often poorly paid and they have enjoyed little esteem and few opportunities for career advancement.[1]

The emergency preparedness and response process and program are likely to give security officers a higher profile, in terms both of image and responsibilities. Administrators often discover during emergency drills that security officers know the institution better than anyone else does. The security staff

is also the front line of defense against many emergencies, since security officers regularly inspect windows, doors, skylights, and other openings; look for leakages in roofs and windows; identify fire hazards; and secure locks. The most common emergencies—fire and water pipe breaks—usually occur when only security officers are present at the institution.

The role of security officers at the Barbados Museum and Historical Society expanded as a result of emergency planning. "This is particularly the case when the plan was revised and, for the first time, we developed alternate plans for off-hour periods at the museum, with only one security officer in place," says Alissandra Cummins. "Security staff have received further training in making a judgment and taking the initiative."

As the emergency program develops, the value of a trained, efficient security force will become clear to everyone involved. This realization helps break down any existing hierarchical barriers.

Preparing Report 1: Vulnerability and Asset Analysis

How vulnerable is your institution—its staff and its collection—to fire, theft, flood, or any other emergency or hazard? The safety and security team's job is to work with the emergency preparedness manager (EPM) and the EPC to assess this aspect.

The accuracy and thoroughness of the assessment will greatly affect the success of the institution's efforts to protect people and to prevent or minimize damage to the collection. Some examples of potential vulnerabilities are listed below. You and your department colleagues already may be aware of some of these weaknesses; others may become apparent only in the analysis process. All of them, however, ultimately affect the institution's preparedness and response capabilities.

- Security personnel do not have a list outlining the chain of command if a problem arises.
- Security staff do not know first aid or CPR, or where first-aid kits are stored.
- First-aid kits are not regularly restocked.
- Staff members do not have identification cards, so law enforcement may not allow them onto the property during a crisis.
- There is no log-in system that could easily identify who was in a particular building when a fire broke out.
- Few staff members know how to use fire extinguishers.
- Master keys may be inaccessible if only the security chief has the combination to the safe.

The following tasks will lead you and your team through the process of information gathering in order to prepare Report 1:

Task 1: Conduct a security survey.

Task 2: Evaluate the security force.

Task 3: Evaluate the inventory systems.

Task 4: Evaluate the monitoring of people.

Task 5: Evaluate equipment needs.

Task 6: Invite local agencies and individuals to participate.

Task 7: Recommend security-related protective measures.

Task 1
Conduct a security survey

The first task is to survey the current safety and security system and evaluate its efficiency. Encourage the team to look at the institution with a fresh eye to jump-start their imagination in this search for vulnerabilities. Before you begin, review with your team the hazard assessment prepared by the EPC, which ranks the likely and/or potential risks to the institution. With these in mind, the team's job is to assess systematically the risk of specific types of damage to safety and security. For example, if the EPC identifies a significant risk of earthquake, you must assess what effect a quake might have on staff and visitors and on the institution as a whole.

The following issues, excerpted from *A Manual of Basic Museum Security*, should be considered when determining security priorities and vulnerabilities:[2]

Building

- Size of the institution
- Type of facility—museum, archaeological site, and so on
- Number of visitors and visitor flow experience
- Available alarm protection
- Environmental conditions and monitoring controls
- Lighting
- Number of public entrances
- Exterior and interior wall openings: entrances, exits, and windows

Staffing

- Need for nighttime staffing

Collection

- Public image of objects on exhibit
- Type of collection and threats to the collection
- Size, location, support, and shape of objects on exhibit
- Ownership of objects
- Value (intrinsic, administrative, and research)
- Display techniques used
- Location in the museum
- Construction and design of the exhibit area: fire, safety, and ability to patrol
- Construction security of display cases

Administration

- Exhibition hours and schedule of operations
- Insurance coverage of objects
- Crime experience and exposure in the museum (from a crime and incident analysis)
- Funds available for protection, training, and additional staff or consultants
- Police and fire response reliability, response time, and support on arrival

Task 2

Evaluate the security force

For financial reasons, the institution may not be able to have twenty-four-hour protection of the collection or an elaborate electronic system of alarms and detectors. This is probably a mistake. Not only is the institution more vulnerable to theft when no one is present, but should a fire break out in a storage room, how far would it spread before someone notices and activates a response?

Many institutions organize the security force around "states of security." The following states have been excerpted from Burke and Adeloye:[3]

> **State 1:** The museum or site is closed to public and staff. . . . In this state there is minimal use of staff and the greatest use of alarm systems and physical security.
>
> **State 2:** The museum is closed to the public, but staff is at work. . . . Moderate to no use of security personnel is combined with moderate use of alarm systems. Staff screens all entry and maintains an entry and departure register.
>
> **State 3:** The museum is opened to the public while staff is at work. . . . In this state there must be a higher staff awareness in nonpublic areas, a maximum use of security personnel in public areas, and moderate use of alarm systems, primarily for the protection of exhibits.
>
> **State 4:** The museum is opened to the public but staff is not working. . . . During these hours, the museum's security program relies most heavily on the staff or security personnel and its alarm system and access control systems to protect nonpublic areas.

If a contract security force is used, you may want to talk to the EPC about renegotiating the contract. The portion of the contract that defines acceptable standards of performance of security officers can be adjusted to include emergency preparedness, mitigation, and response duties. You may also wish to discuss bringing the security staff onto the regular payroll.

Some institutions do not have sufficient resources to pay for the security force's expanded role, but the value of bringing security in-house may compel senior administrators to locate the funds. The U.S. Holocaust Memorial Museum in Washington, D.C., is a case in point.[4] The museum's protection

services administrators wanted to replace contract security officers with federal employees because they believed the latter would "demonstrate greater initiative in monitoring security systems, recommending changes, and improving operations." Senior management supported the idea and downsized in other areas in order to hire ten full-time officers.

Questions to Consider

- **How many security officers are assigned at various posts?**
- **Is there a backup force in the event of an emergency?**
- **Do security officers receive training in how to recognize damage to objects on display? Are they trained in the art of observation?**
- **Do supervising officers receive any special emergency response training?**
- **Do officers feel they have an important role in protecting visitors and staff and in protecting and preserving the collections?**

Task 3

Evaluate the inventory systems

As you conduct the security survey, you will need to work with the collections team and the administration and records team to review the institution's inventory systems. For instance, do the identifying marks contain a number or code, and are the marks resistant to deletion or alteration so that they can be used to identify a stolen object?

Important categories of information are identified in *Protecting Cultural Objects in the Global Information Society*:[5]

- photograph
- Object ID[6] number
- type of object
- object name
- title
- materials and techniques
- measurements
- inscriptions and markings
- distinguishing features
- subject
- date or period
- maker
- description

Although these categories are intended for the collections, they can be used as a guide for the inventory of furnishings and other assets. For a detailed list of inventory considerations, refer to the *Museum Security Survey*.[7]

Task 4

Evaluate the monitoring of people

If an earthquake struck right now, would you know who is in the exhibit galleries, offices, and laboratories and could be at risk? Whether they are staff members or visitors, the people who travel through the institution's doorways are your responsibility once crisis strikes. A system should be in place to monitor who is in the buildings at all times. This system can be as simple as a log or a visitor count, but it must be maintained.

In addition, evaluate screening procedures for staff and volunteers. Are staff and volunteers fingerprinted? Is fingerprinting necessary? Are security screening devices needed for sensitive areas?

Questions to Consider

- **Are employee ID cards clearly visible and checked regularly by security officers?**
- **Who has keys to the buildings? Are they taken home? What is the procedure if keys are lost or missing?**
- **Are temporary and unsalaried personnel supervised during working hours?**
- **Do the buildings have different entrances and exits for staff, contractors, personnel, and visitors?**
- **Are security officers stationed at all staff exits to check contents of briefcases, parcels, and so forth?**
- **Is access to different areas of the institution controlled or restricted based on the nature of the collections therein?**
- **Are visitors in nonpublic areas registered in and out, and do they wear temporary badges or other means of identification?**[8]

Task 5

Evaluate equipment needs

You cannot ask for additional security equipment such as walkie-talkies or fire extinguishers unless you have a realistic idea of what the department has. Determine what the institution has on hand now. Based on the budget, and given the particular risks associated with the institution's location, what equipment is needed most? The following are security-related types of equipment:

- communications system
- detectors, alarms, and sensors (to monitor heat, smoke, water, and the entry to the institution or museum)
- fire detection systems
- fire extinguishers
- fire suppression systems
- people-monitoring system
- closed-circuit television cameras
- defense equipment and firearms
- emergency power supply

Suggested Exercise

Describe the following scenario to your team members: Weather forecasters say a storm is headed toward an area that includes your institution, bringing with it gale-force winds and heavy rainfall. The storm is expected to hit tomorrow night. What is the security force's role during emergency preparations? Should you close the museum? When? Who will check and stock supplies? If power fails, will the alarm system or telephones work? Will any objects be at risk if the temperature control devices fail? What else should be considered?

Questions to Consider

- **If the institution has a public announcement system, is it sufficiently audible in all rooms? If not, how will you communicate emergency and evacuation information to everyone in the building?**
- **Does the sprinkler system have an automatic cutoff after a fire is extinguished?**
- **Is the detection/alarm/extinguishing system appropriate to the objects and the area covered in each case?**
- **What kind of exterior alarm is in operation?**
- **Are alarm buttons located near entrances?**
- **Are tape recorders connected to telephones to record bomb threats and extortion messages?**

Task 6

Invite local agencies and individuals to participate

Staff members immersed in the emergency planning process often make the mistake of overlooking local or regional services and resources. Fire departments, for example, can provide beneficial information and sound advice. The information flow works both ways: You learn from fire officials, who in turn learn about your institution and its special needs. Consider also inviting any or all of the following agencies or services, either to make presentations to the team or to walk through the institution. Coordinate your presentations with the EPC, other teams, or all staff, since everyone may benefit.

- police
- military (can be problematic in some countries)
- local chapter of the U.S. National Guard
- staff members or former staff members from institutions that have experienced an emergency situation or the preparedness process
- staff of state or national government emergency agencies
- Red Cross search and rescue

Task 7

Recommend security-related protective measures

Protective measures are steps taken to reduce or eliminate hazards that threaten people or the collections. They may be as simple as posting a chain-of-command telephone list near telephones throughout the museum or as complicated as installing an automatic fire detection or suppression system.

Protection is a long process and one that never ends. Remind team members from time to time that it is a priority. You also may need to remind museum administrators of their commitment to emergency preparedness if you find yourself lobbying for funding to purchase a more costly protection device.

Preparing Report 2: Outline of Response Procedures and Techniques

In Report 2, you and your team will detail safety and security procedures and techniques for responding to any type of emergency. Instructions must be included for ensuring the safety of people and objects. This includes how to activate the chain of command, handle emergency equipment, and relocate people and/or collections. The report must include lists of items, such as emergency supplies and equipment available, on-site as well as off-site. Job descriptions for the safety and security response team must also be provided.

There are plenty of emergency plan templates from other institutions to help you get started, but you must not simply copy sections from someone else's plan. It is not the written plan that prepares a museum for an emergency, but the *process* of planning. The fact that you and your team are grappling with these issues now, in the comfort of a conference room, means you will be better prepared to respond to a crisis.

The following tasks will help you contribute to an emergency response plan that is simple, detailed, and flexible:

Task 1: Identify potential temporary bases of operations.

Task 2: Identify potential safe rooms and/or outside shelters.

Task 3: Determine emergency evacuation routes.

Task 4: Develop the safety and security response team.

Task 5: Develop emergency procedures.

Task 6: Detail recovery procedures.

Task 7: Create lists of staff and resource contact information.

Task 8: Create fact sheets and maps.

Task 9: Stock emergency supplies and equipment.

Task 10: Establish routines to keep the plan viable.

Task 11: Identify and implement appropriate training.

In preparing your report, you and your team will have to address a number of important issues. Some will be general to all the departmental team reports; others will be specifically on safety and security issues. The following questions will help you address some issues and prompt you to identify others.

Questions to Consider

- **Who decides when the emergency procedures should be put in place? The director? The emergency response coordinator (ERC)? The chief of security? What is the line of succession?**
- **How will the command system work if the emergency happens on a weekend or after hours (as emergencies have a tendency to do)?**
- **How will the contact system work if telephone lines are down? Walkie-talkies? Bicycles? Cellular phones? Beepers?**
- **Will the chain of command fit into, and take into account, those from emergency agencies such as the civil defense or the fire department, which will override the institution's procedures?**
- **Who will be in charge of keeping your part of the plan current? (Remember, people change jobs, telephone numbers change, new equipment is purchased and old equipment is discarded, companies go out of business, and agency responsibilities change.)**
- **To whom does your team report during an emergency?**
- **Who will coordinate with emergency organizations, such as the U.S. Federal Emergency Management Agency (FEMA), and with the insurance company?**

Task 1

Identify potential temporary bases of operations

During an emergency, a central base of operations, or emergency command center, must be established, from which the response and recovery teams can operate following an evacuation. The location of this command post varies depending on the nature of the disaster; a hurricane requires a different location than an earthquake does. In some cases, it may be the security office. In others, the command post could be set up on or near the property.

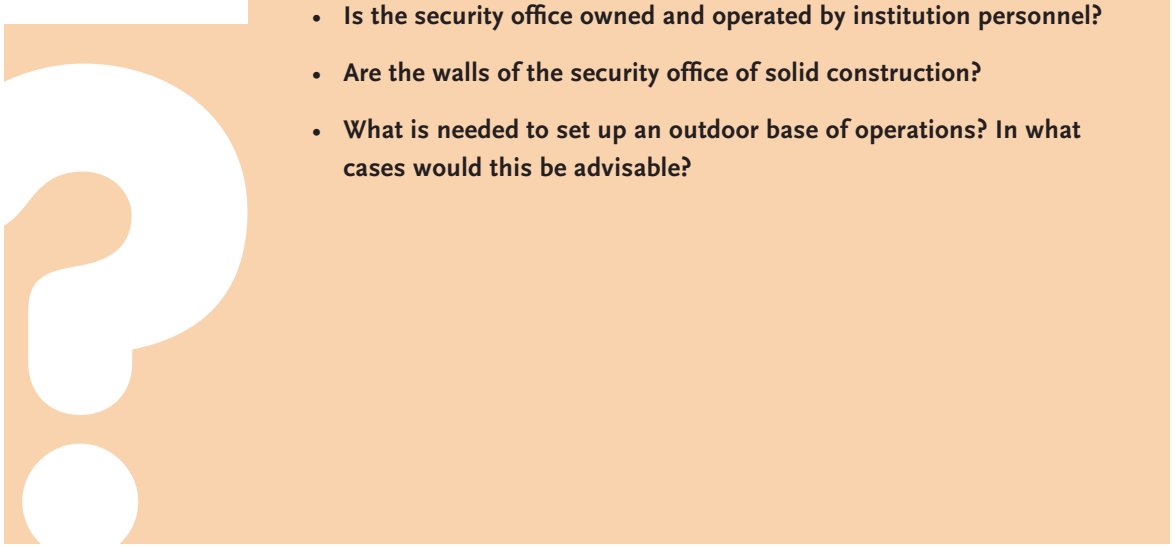
When identifying potential sites for the command center, consider the various threats facing the institution. If flood is a potential hazard, make sure the post is on the highest point in the surrounding area. If wildfires are a possibility, make sure heavy brush and trees do not surround the command post.

Work with the ERC and leaders of other departmental teams to identify criteria for the base of operations. Once established, the command post should be manned by the ERC and leaders of the departmental response teams. You may want to consider limiting access to the command post to minimize interference to critical decision making.

In general, command post locations should be based on

- access to relevant emergency information and communication (on and off the property) and communication equipment that will assist those handling command operations;
- location with minimal safety risk;
- central location for easy access of staff and easy access to emergency equipment; and
- location near a road to allow for ready access by a radio-equipped vehicle for use if other systems fail or extra communication facilities are needed.[9]

Questions to Consider



- **Is the security office owned and operated by institution personnel?**
- **Are the walls of the security office of solid construction?**
- **What is needed to set up an outdoor base of operations? In what cases would this be advisable?**

Task 2

Identify potential safe rooms and/or outside shelters

In some emergencies, safe rooms and/or outside shelters will be needed to house staff members, visitors, and the collection. As with the temporary emergency command center, the ideal shelter location will vary depending on the type of threat. Work with the buildings and maintenance team to identify and evaluate potential sites. Consult with the collections team to determine shelter needs for objects. Solicit the administration and records team's input in identifying shelter needs for equipment and documents, and in considering the legal issues involved in moving people and property.

The following recommendations for emergency shelters have been been adapted from *Steal This Handbook!* [10] with input from advisers to this book:

Size. Ensure that the shelter is large enough to fit the maximum number of staff and visitors likely to be at the institution at any one time. Allow 5–6 square feet (0.47–0.56 square meters) per adult and 3 square feet (0.28 square meters) per child. It also should be large enough to accommodate emergency supplies and priority objects.

Accessibility. Take into account the route necessary to reach the shelter and the size of the openings through which objects must pass.

Security. The shelter must offer the highest level of security. This means a minimum number of openings so the shelter can be sealed and access controlled completely.

Physical safety. The shelter should be isolated from the exterior by adjacent rooms or corridors. Walls and ceilings should be free of plumbing, pipes, and so forth.

Environmental stability. Make sure the shelter is environmentally stable. Add materials such as carpets and curtains to buffer the relative humidity, and have humidifiers or dehumidifiers on hand.

Lighting. Make sure adequate lighting is provided. There should be no windows or skylights if the institution is in a seismic area or subject to tornados, to avoid the danger of broken glass.

An ideal shelter should *not* have any of the following:

- exterior walls that are likely to be partially or completely destroyed
- roofs with windward edges (usually south and west), long spans, overhangs, or load-bearing wall supports
- corridors and ends of corridors that have exit doors facing directly to the outside
- spaces with windows facing the direction from which a storm or hurricane is likely to approach
- interior locations containing glass (display cases, glass doors, skylights)

Questions to Consider

- **From which direction do potential natural hazards (e.g., hurricanes, windstorms, brush fires, flash floods, volcanic ash) come in your institution's area?**
- **How does the local emergency management agency's plan for placement of civil shelters affect your plan?**
- **In a general-area emergency, the institution itself may become a shelter. How will you protect the collections in such a situation?**
- **Does anyone other than the maintenance staff know where the toilet paper, plastic bags, and disinfectant are?**

Task 3

Determine emergency evacuation routes

Work with the buildings and maintenance team to determine evacuation routes for emergency situations. The evacuation plan should include

- two separate means of exit from each floor, including basements;
- an exit plan for every location in each building;
- routes that provide speedy exit, simplicity, access (including disability access), and safety (lighting, no possible obstructions);
- designation of a safe area where people can gather once they are evacuated;
- a procedure for what to do with staff and visitors once they are gathered in the safe area, bearing in mind that considerable time may pass before reentry is possible or, potentially, proves to be no longer possible at all;
- a system that verifies whether everyone has evacuated the building and reached the designated safe area;
- maps showing evacuation routes and exits posted in all public and staff areas on each floor;
- first-aid kits, flashlights, fire extinguishers, keys to shelter/supply sites, and a copy of the emergency plan handbook and staff emergency procedures posted by every exit; and
- wheelchairs at a variety of locations.

In planning an evacuation, keep the following in mind:

- People are the first priority. Special care and consideration should be made for the well-being of staff during and following response activities.
- Some natural emergencies allow time for the implementation of stages of response activities. There may be two days' warning for hurricanes and floods, but only a few hours for tornadoes and brushfires and no warning at all for earthquakes.

- Provide staff members with badges so they can be identified quickly by police or fire department officials.

See appendix C for sample evacuation plans from the Getty Center and the Barbados Museum and Historical Society.

Questions to Consider

- **Are emergency exits equipped with emergency lighting?**
- **Are stairwells adequately lighted?**
- **Are all ramps and stairways equipped with guard rails?**
- **Are first-aid kits well stocked and in appropriate places?**
- **Do elevators return to the ground floor when the alarm is activated?**
- **Where are the "safe areas" or "areas of refuge" for disabled staff and visitors who are unable to use the stairs?**

Task 4

Develop the safety and security response team

The security staff, in the case of fire or earthquake, has to take the public out of the building. The guards also have a list of the twenty most important objects in the museum. In the case of a bomb threat, they call in the special police. Also, every afternoon they check the exhibits and bathrooms for bombs after we close the museum.

— Johanna Maria Theile Bruhns
Coordinator, restoration program
Facultad de Arte, Universidad de Chile, Santiago

Step 1

Compile a list of necessary actions

The role of the safety and security team will vary depending on the institution and the emergency. One team member probably will need to

- make decisions to relocate or evacuate people and objects, if necessary (the collections response team must be consulted, but the safety and security team must know when they may take action in regard to the collection—for example, at night, if no collections staff are present);
- activate the chain of command;
- contact emergency organizations;
- attend to injuries;

Figure 5 Security officers setting up an emergency shelter and supplies during an evacuation drill at the Getty Center. Photo: Valerie Dorge.

- restrict movement of nonemergency personnel; and
- secure the buildings and grounds.

The Getty Center's safety and security team has the following responsibilities during an emergency:[11]

- Establish priorities for staff and visitor safety and physical security.
- Oversee the safety and welfare of all people on the site, the security of the site and buildings, emergency communications, and the allocation and distribution of all emergency equipment, supplies, and transportation.
- Conduct search-and-rescue operations, direct first-aid teams, and coordinate food, shelter, and sanitation.
- Allocate and deliver all emergency supplies, equipment, and vehicles during emergency operations, and distribute communications tools (cellular phones, radios, walkie-talkies).
- Ensure effective operation of all technical security, fire, and emergency communication systems; oversee notification of evacuation and relocation of building occupants (Fig. 5).

At the Barbados Museum and Historical Society, museum security officers are expected to contact management if an emergency threatens or occurs. The safety and security team oversees evacuations of staff and visitors. A disaster team, which includes the director, the curators, the administrator, a special events manager, a structural engineer, and an architect, takes over after an emergency. Members of the disaster team enter the buildings to ascertain the physical condition of the buildings and the collections. Disaster team members determine if and how the recovery team begins its work.

At the Mystic Seaport Museum, every department, including security, undertakes a series of procedures as a storm approaches. Forty-eight hours before a storm is due, security personnel meet with the chief protection officer to review plans, adjust schedules, and implement storm watch procedures. Thirty-six hours before the storm, security personnel prepare emergency supplies for movement from storage to the central control station. At eighteen hours, security personnel clear the museum and parking lot of visitors, transfer emergency supplies to the central control station, and assume posts at the property gates, at a first-aid station, at the central control station, and in patrol vehicles. Just before the storm hits, security personnel return to the central control station and remain there until authorized to return to their posts.

Step 2

Develop response team job descriptions

> *We have paid much more attention to the ability of security staff to communicate clearly and effectively, whether in written or verbal form. Meticulous observation and reporting are crucial. One senior security officer now joins the management staff in interviewing and evaluating new officers.*
>
> — Alissandra Cummins
> Director
> Barbados Museum and Historical Society

Now that the necessary actions have been designated, they must be assigned to team member positions. Give each job a title that accurately reflects the chief function of the job. For instance, you may want to assign team leaders to certain areas or functions, such as conducting the evacuation, setting up the command center, or administering first aid. Next, list that position's duties and responsibilities. Pay particular attention to the types and number of duties. Match similar duties (e.g., leadership duties, assistance duties, and physical duties) so that one person is not expected to fulfill completely different tasks.

Following that, list the staff position assigned to the role, along with at least two alternates in a line of succession. The number of alternates you designate depends on how important certain skills are to the position. The administration and records team, which is experienced in writing job descriptions as part of its human resources function, can coordinate the writing of job descriptions in each of the four departmental response teams.

The response team job description for responsibility in safety and welfare of employees and visitors (appendix D) is from the Seattle Art Museum's *Emergency Planning Handbook*.[12] Note that in addition to simple and clear responsibilities, the description also designates which staff position should fulfill the role. If the person in that position is unavailable, the first alternate takes on these responsibilities. The description also states whom this team member reports to and provides a checklist of actions expected of the position. In short, nearly anyone could fill the position if necessary.

Suggested Exercise

Propose the following scenario to team members: It's a hot summer night. At 7 P.M., a passerby tells the security officer that he believes he saw smoke coming from the attic window of the main building. A group, mostly senior citizens, is meeting in that building.

List the steps that must be taken over the next twenty-four hours to save those in the building, put out the fire, and protect and salvage objects. Who does what? If a key person is not around, who takes his or her place?

Committing to paper the responsibilities of each position helps to define roles. In addition to familiarizing the persons in the primary and backup positions with their role and that of colleagues, putting it in writing makes it easier for an alternate to run down the "checklist" of work to be carried out. This will help keep the emergency recovery on track.

Questions to Consider

- **Who is responsible for summoning help? What is the best way to reach local authorities if the phones are not working?**
- **Who will have the authority to allow staff back into the buildings?**
- **Who documents all significant activities and events?**
- **Who announces the location of the emergency command center?**
- **Who calls in off-duty security personnel, if necessary?**
- **Who coordinates the deployment of arriving staff, ensuring that all needs are met according to priority?**
- **Who patrols the perimeter to prevent trespassing, theft, and looting? Use the buddy system here, particularly at night.**

Task 5

Develop emergency procedures

What should a receptionist do if he or she receives a bomb threat? What should a security officer do immediately following an earthquake? What should a maintenance worker do if he or she detects a suspicious odor? These are the types of questions that should be answered in a staff emergency procedures handout, which your team will submit to the EPC as part of Report 2. The handout should

- give prominent placement to the telephone numbers for security staff;
- include the operating hours of the security office;
- include a telephone number to call if security is unreachable;
- describe available emergency supplies;
- explain how long emergency generators will operate;
- describe locations of first-aid kits;
- give step-by-step instructions on what to do in the event of any likely emergencies (including medical emergencies; flooding and water damage; power outage; suspicious behavior and personal safety; chemical spills, gas leaks, and suspicious odors; earthquakes; fire; telephone mail threats; suspicious objects; explosion; civil disturbance; and elevator entrapment; and
- describe employee evacuation procedures.

The staff emergency procedures handout should be concise, should address all relevant emergencies, and should be printed in bright, readily identifiable colors so it can be quickly found in a crisis. Give all employees a copy and have

them sign a checklist indicating that they have read it. Remind them that they should read the handout on a regular basis and update it whenever necessary.

Task 6

Detail recovery procedures

Recovery measures occur after an event has happened. They are designed to enable the museum—and its collection—to return to normalcy in an orderly, phased, reasoned and methodical fashion. Recovery measures begin when the disaster situation has stabilized and professionals have evaluated the damage and suggested further, long-term actions. Recovery can be a long process, taking years in some cases.[13]

— John E. Hunter
Supervisory staff curator
National Park Service, U.S. Department of the Interior

Step 1

Consider damage assessment issues

Working with the three other departmental preparedness teams, you and your team will build damage assessment procedures into the response plan. Determine what role safety and security will play in the damage assessment process. Once an area of the institution has been identified as a hazard, how will it be marked? In what cases will a security officer be posted at a hazard site?

Documentation of physical damage is critical not only for salvage and conservation of historic buildings, but also for insurance claim purposes. Claim forms and documentation equipment, such as still cameras or video cameras, should be safely stored and easily accessible. If visual documentation equipment is unavailable, do the documentation in writing.

Step 2

Determine recovery procedures

You and your team should coordinate efforts with the three other teams to identify recovery procedures that move the museum from a state of emergency into the state of normal operations. In the aftermath of an emergency, these recovery procedures can be used as a guide in developing a recovery plan.

Security-related recovery procedures include the following:

- Secure the building and grounds with extra security, if necessary.
- Work with the buildings and maintenance team to ensure a safe work environment for staff and volunteers.
- Work with the collections team to secure the collection.
- Help develop and implement the recovery plan.

Step 3

Address issues of mental and physical well-being

> *We recognize that many of you will want to go home as quickly as possible following an emergency. We understand and support that desire. If you do leave the property, please proceed carefully. If you find you are unable to get to your destination, we welcome you to return to the Getty Center.*[14]
>
> — The Getty Center
> "Emergency Planning Handbook"

The above statement reflects the conflict staff members will have in the event of an emergency—such as flood, forest fire, or major seismic activity—that threatens their families and homes as well as the institution. If the disaster occurs while they are at work, their first concern will be for their families and homes; if they are at home, no matter how committed those employees are to their institution, they will be hesitant to leave until they are confident that everything is under control at home.

If the emergency takes place during work hours, the ERC and response team leaders must put the well-being of staff first during response, salvage, and recovery operations. Jerry Podany, head of antiquities conservation at the J. Paul Getty Museum, recalls how workers assisting in recovery efforts after an earthquake in Japan were highly organized and worked at a high energy level for extended hours. In the end their extreme fatigue negatively affected their work. As team leader, be sure to schedule regular breaks, as well as provide food, a place to eat and rest, and bathroom facilities.

"You have to respond in a reasonable way and work that into the plan," Podany says. "If you do not have a plan in place, you respond emotionally." In Japan, Podany witnessed one recovery group patching one painting amid a rubble of pottery shards. "I thought it was silly to patch a painting when there was so much devastation around them," he recalls. "But it made a huge difference to that group. It really energized them."

Step 4

Require frank after-action reports

Every encounter with a disaster or an emergency is an opportunity for learning. That is the purpose of after-action reports that detail the actions taken and the results observed. First, it is important to emphasize and praise what went right, then examine problems encountered or mistakes made. Do not allow these reports to be after-the-fact justifications and defenses of what the response team did; they must be candid assessments of what occurred—problems and all.

Indicate to team members your desire to learn from mistakes, not to punish people for them. Encourage an atmosphere of honest self-assessment, starting with yourself. What could you have done differently? What would have worked better? How could you improve your response next time? What did you learn that could be applied to the next emergency?

Task 7

Create lists of staff and resource contact information

Once you have the list, do not rest on your laurels, thinking, Well, we have a list so we're done! Lists go out of date quickly, so it is important to update them at least once a year.

— Gail Joice
Senior deputy director and registrar
Seattle Art Museum

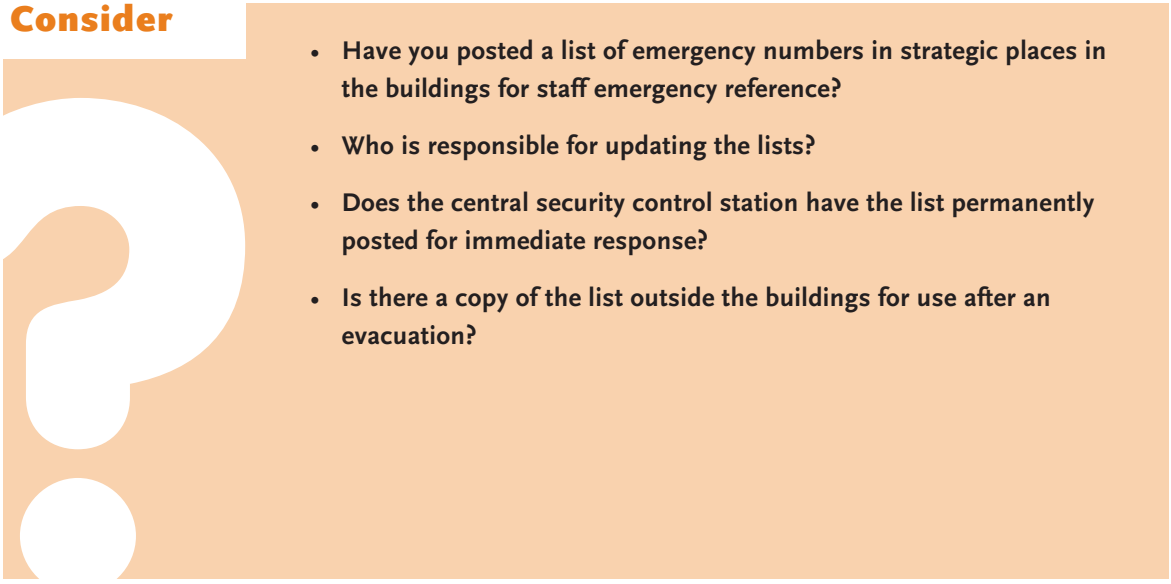
Furnish the EPC with the names of all staff members, along with their work and home telephone numbers and home addresses. This information makes it easier to notify staff during an emergency, and the institution also can check whether staff members are OK if they have not reported to work following a large-scale emergency. Develop other means of contact in the event of a widespread emergency in which the telephone system may not be functioning. Make sure employees have contact numbers for out-of-state family members in the event that all local telephone services are jammed. Make a list of special skills available from among the staff; for example, is someone a former nurse, search-and-rescue team member, or National Guard member? It is also important to establish relations with individuals and organizations that the team might have contact with during an emergency. With help from the other departmental preparedness teams, produce lists with names, telephone and fax numbers, street and e-mail addresses, and contact persons.

Update all lists and check the contacts regularly. Are the listed companies still in business? Are the contact persons still at the company? Have phone numbers or e-mail addresses changed? Use significant dates to help you remember to update the contact lists. For example, if the institution is in an earthquake-prone area in the United States, do the updating on April 1 (April is National Earthquake Preparedness Month).

Here are some external resources you may wish to include:

- sources of additional security officers
- health and water-testing authorities
- doctors and hospitals
- mental health advisers
- emergency equipment rental resources
- sources for supplies and materials (include name of staff person authorized to purchase)

Questions to Consider



- **Have you posted a list of emergency numbers in strategic places in the buildings for staff emergency reference?**
- **Who is responsible for updating the lists?**
- **Does the central security control station have the list permanently posted for immediate response?**
- **Is there a copy of the list outside the buildings for use after an evacuation?**

Task 8

Create fact sheets and maps

The safety and security team is responsible for developing the following fact sheets:

- a flow chart of chain of command in emergencies
- operating instructions for emergency equipment, such as generators, radios, walkie-talkies
- step-by-step instructions for turning off valves for gas, electricity, water, and so forth
- basic first-aid recommendations

The safety and security team also is responsible for creating maps that identify emergency exits, describe evacuation routes, and alert staff members to where they can find the following:

- emergency shelter, supplies, and first-aid locations
- emergency equipment, such as extinguishers
- communications devices
- keys to such areas as supplies and storage

Task 9

Stock emergency supplies and equipment

Emergency supplies should be stored in two locations: inside the institution, in case it becomes a shelter itself, and outside the institution, for situations that require evacuation or if the building is not occupied when the emergency occurs. Large quantities of expensive items or perishable materials need not be stockpiled. Instead, identify suppliers and make arrangements for emergency delivery as needed.

Security personnel often are responsible for checking and replenishing emergency supplies. Keep lists readily available, and make sure all staff members know where the supply caches are and who has access, including keys. Emergency supplies should include the following:

- water (three days' supply: one gallon [4.5 liters] per person per day, as recommended by the American Red Cross)
- food
- blankets
- first-aid kits
- battery-powered radio and/or walkie-talkies
- flashlights
- spares of each type of battery
- sanitary supplies

Other supplies:

- cash and/or traveler's checks to purchase supplies not on hand
- camera, flash unit, batteries, and rolls of film
- suitable clothing—hard hats, gloves, eye protection, fire-retardant overalls
- carts and dollies
- boxes, buckets, and other containers for carrying smaller objects
- waterproof labels, tape, and pencils
- emergency generator and fuel (operate only in proper ventilation)
- fire extinguishers
- breathing equipment, such as respirators and dust masks
- small backpacks or carrying bags for tools and supplies needed for the initial response

Note: Candles are *not* recommended because of their potential for causing fire and/or an explosion if there are any gas leaks. Other supplies should be based on the types of potential emergency situations identified in the risk assessment. For example, if the institution is in a floodplain, clothing such as rubber boots and raincoats, as well as plastic sheeting and bags of sand, should be kept on hand. For fire, store buckets, shovels, rakes, and hoes.

See appendix E for a list of supplies and equipment needed for a mobile/portable first-aid box, an emergency response cart, and a disaster supply box.

Suggested Exercise

During a meeting of the security staff, conduct a mental exercise. Ask staff members to close their eyes, then give them an emergency scenario. Say the sprinkler system accidentally discharges, or a fire breaks out in a workroom. Ask a volunteer to describe, step by step, how he or she would respond. Ask detailed questions: What do you do first? Whom do you call? What phone do you use? Where are the keys? Where are the necessary tools, supplies, maps, and lists? Encourage others to make recommendations.

Questions to Consider

- **Have you determined what supplies and equipment are likely to be needed?**
- **Have you provided sufficient protection for the supplies so they will be available and undamaged in the event of a disaster?**
- **Are supplies and equipment available to remove water and debris from affected objects or institution areas?**
- **What are the nearby sources for the replacement of damaged or inaccessible materials previously assembled? Where is the "shopping list"? Who can purchase the materials?**[15]

Note: Remember, credit cards may not be usable in a disaster if telephone lines are down; a cash economy will be in effect.

Task 10

Establish routines to keep the plan viable

The following are a few examples of possible daily and periodic checklist activities for the safety and security team. You may be inspired to think of others. Compare lists with the other departmental preparedness teams.

Daily checklist activities:

- Exhibit gallery cases remain secure and all display objects are accounted for.
- All external doors and windows and appropriate internal doors are locked, and the keys are in their designated locations.
- After closing time, no visitors are in public areas, such as washrooms.
- Computer files and systems are backed up.
- Staff members who have not signed out are accounted for in the building.

Periodic checklist activities:

- Update the contact information lists.
- Reorder emergency supplies if necessary.
- Replace batteries in emergency equipment, such as flashlights and radios.
- Ensure that fire extinguishers are inspected and recharged if necessary.
- Test all alarms and protection systems after closing to the public and when most staff members are not in the building (after notifying staff, as appropriate).
- Provide the emergency preparedness manager (EPM) with updated documents that are part of the emergency plan, including fire exits, changes in visitor flow, and operating instructions for new equipment.
- Review collection inventory documents, including loan forms.

- Update the duty roster to reflect staff and other institutional changes.
- Verify that outside experts and/or resource information is up to date.

In addition, make sure that evacuation drills are conducted regularly.

Task 11

Identify and implement appropriate training

What skills and knowledge do security personnel need? Training and support are available from many sources, including international and national security organizations, such as the International Committee on Museum Security of the International Council of Museums. Local police, fire, and military are the most immediately available resources. Extensive literature is available for each particular security need, including security officer training, emergency planning, alarms, and access control. Major museums and museum associations, such as the American Association of Museums (AAM) security committee, may be willing to share their training procedures for security managers and officers.

Members of the security force should be trained not only to perform guarding tasks, but also to recognize material damage and deterioration and to be familiar with the museum, its collections, and its history. *A Manual of Basic Museum Security*[16] suggests the following training skills related specifically to responding to emergencies:

- Exemplify leadership, calm, and authority in handling persons in any emergency.
- State the four fire response steps of reporting, annunciating, evacuating, and fighting the fire, in that priority order.
- State each individual's role and responsibility in evacuating the area, only as instructed by security supervisors.
- Recognize major life-threatening medical emergencies, and respond by calling immediately for emergency assistance.
- Take commonsense measures in a medical emergency to support breathing and prevent excessive bleeding, keeping ill or injured persons comfortable and out of public sight as much as possible.
- Recognize general crimes against persons, property, and the museum, and report them immediately.
- Protect people over property and collections in criminal or violent situations.
- Respond to bomb threat signals by searching the assigned area without touching anything, and report any unusual condition or suspected objects immediately by phone.

Practice evacuation procedures

Security personnel are responsible for carrying out evacuations. Security officers need practice in conducting an evacuation, as does the rest of the staff.

Does everyone on staff know what immediate action to take when the emergency alarm sounds? After seeing to the personal safety of staff and

visitors, thoughts turn to the collection. Do employees know which objects in the collection to evacuate first? If not, can they find the priority list quickly? Do they know where supply kits of packaging materials are, and do they have access to that location? Do they know the routes to internal or external shelters? Do they know who is in charge and to whom they need to report?

Teach observation techniques

> *Year-round, emergency-response training for your security or other designated staff is imperative and should include basic fire fighting, first aid, cardiopulmonary resuscitation, utility shutoffs, and emergency collections movement.*[17]
>
> — Wilbur Faulk
> Director of Getty Center Security
> The J. Paul Getty Trust

Security officers are trained to watch for suspicious behavior and threats to security. Every staff member must understand that security is of prime consideration within his or her delegated duties. Staff should receive training in security and fire protection, including good observation techniques.

Talk with the EPC about including security- and safety-related duties in job descriptions for every employee and allowing security personnel to train other staff members. Sales clerks in the gift shop and receptionists at the entrance can act as security officers, not only for their immediate area but also for adjacent areas. Volunteers also can be instructed in security; in some museums they provide a vital link in the security chain.

Following are a few basic training methods. You may choose to employ several, either independently or simultaneously. (See chapter 5 for more information on training.)

- group discussions
- simulations/role-playing
- supplementary handouts
- videos
- review sessions
- self-assessment exercises
- hands-on workshops
- presentations by colleagues or consultants who have hands-on knowledge of the scenarios the institution might face

Questions to Consider

- **Do officers and key staff members know how to operate electrical and water supply systems or other important building systems?**
- **Are officers trained in what to do in unusual situations or those situations requiring special skills or instructions beyond their routine or beyond their level of skill?**
- **Does anyone check to make sure that visitors and staff members sign in and use their real names when they enter the buildings?**
- **Can security staff conduct fire extinguisher training for other staff?**
- **Do all staff members know how to get to the roof of the building, and how to direct others to the roof?**
- **Does everyone know the location, both off-site and on-site, of emergency keys, hard hats, flashlights, fresh batteries, hoses, and fire hydrants?**
- **Is any staff member trained to use a fire hose? Should any employees be trained?**

Notes

1. Robert B. Burke and Sam Adeloye, *A Manual of Basic Museum Security* (Leicester, Great Britain: International Council of Museums and the International Committee on Museum Security, 1986), 12. Reproduced by permission of the ICOM Committee for Conservation.
2. Ibid., 10. Reproduced by permission of the ICOM Committee for Conservation.
3. Ibid., 6–7. Reproduced by permission of the ICOM Committee for Conservation.
4. Suzanne Ashford, "A Contract Guard Force Versus a Proprietary Force" (presentation to the National Conference on Cultural Property Protection, Arlington, Virginia, Feb. 20–24, 1995), 31–33.
5. Robin Thornes, *Protecting Cultural Objects in the Global Information Society: The Making of Object ID*, ed. Marilyn Schmitt and Nancy Bryan (Los Angeles: J. Paul Getty Trust, 1997), 25.
6. Object ID is a standard system, developed by the Getty and its partners, for identification of works of art and artifacts. For free copies of an eight-minute video on Object ID, a one-page checklist, or the Getty publication *Protecting Cultural Objects in the Global Information Society*, write to the Getty Information Institute, 1200 Getty Center Drive, Los Angeles, CA 90049 USA; or send a request by e-mail to objectid@getty.edu.
7. International Committee on Museum Security, *Museum Security Survey*, ed. Diana Menkes, trans. Marthe de Moltke, based on the document by George H. H. Schröder (Paris: International Council of Museums, 1981), 24–25.
8. Adapted from International Committee on Museum Security, *Museum Security Survey*, 26–28, with input from advisers on the compilation of this book.
9. Adapted from "Command Post: Establishing" in Getty Center, "Emergency Planning Handbook" (J. Paul Getty Trust, Los Angeles, 1997, photocopy), Fact Sheets section.
10. Adapted from Allyn Lord, Carolyn Reno, and Marie Demeroukas, *Steal This Handbook! A Template for Creating a Museum's Emergency Preparedness Plan* (Columbia, S.C.: Southeastern Registrars Association, 1994), 177–79. Used by permission.
11. Adapted from "Summary of Emergency Response Roles" in Getty Center, "Emergency Planning Handbook," Checklist section.

12. Seattle Art Museum, *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994).

13. John E. Hunter, "Preparing a Museum Disaster Plan," in *Southeastern Museums Conference, 1991 Disaster Preparedness Seminar Proceedings*, ed. Martha E. Battle and Pamela Meister (Baton Rouge, La.: Southeastern Museums Conference, 1991), 53–66.

14. Getty Center, "Emergency Planning Handbook," Evacuation section.

15. Taken from Gail Joice, "Questions to Ask Yourself When Preparing a Disaster Plan" (AAM Risk Management and Insurance Committee, American Association of Museums, Washington, D.C., April 1994, typescript).

16. Burke and Adeloye, *Basic Museum Security*, 95. Reproduced by permission of the ICOM Committee for Conservation.

17. Wilbur Faulk, "Are You Ready When Disaster Strikes?" *History News* 48 (Jan./Feb. 1993), 9. Used by permission of the American Association for State and Local History.

Chapter Summary

This chapter

- **outlined the role of the safety and security team in the emergency preparedness process;**
- **described the information required in the two reports prepared by the safety and security team for the emergency preparedness committee;**
- **guided you, the team leader, through the process of assessing the vulnerability of your institution's safety and security program;**
- **helped define the roles and responsibilities of the safety and security response team; and**
- **identified tasks to guide your team through the process of designing a response and recovery plan that is simple, detailed, and flexible.**

In review, the emergency preparedness process is a long-term commitment on the part of staff, teams, and committees. You cannot, and should not, expect changes to come quickly or easily. Interdisciplinary teamwork is difficult and requires a change in attitude that may be slow in coming at first. The payoff—in peace of mind, in the safety of people, and in the protection of cultural objects and irreplaceable records—will be great.

CHAPTER SEVEN

The Collections Team

As the institution's emergency plan is developed, several collections-related issues must be addressed. This chapter is designed to be a resource for you, the leader of the collections team. For an overview of the emergency preparedness and response planning process, please consult chapters 1–3. For training ideas, see chapter 5.

Your Role in the Process

It is a wet and windy day. A huge fire has broken out in the west wing of the museum, threatening the entire building but leaving enough time to evacuate a few items from the collection. As you watch in horror, a well-meaning volunteer attempts to save a prized painting. In his hurry, he grabs the painting and accidentally damages the frame while rushing out the door. Or, instead, the volunteer bypasses that valuable painting to save a bronze, one of several identical ones owned by the museum.

Now, picture the same scenario, only this time a staff member trained in emergency art-handling removes the painting, taking care not to touch its surface, bypasses the replaceable bronze cast, and walks quickly but calmly to the evacuation door.

Effective emergency planning can make a difference when it comes to your institution's collections. This is why you and your team's contribution to the overall emergency preparedness and response program is so important. Emergency planning can be no better than the information on which it is based, and no other department of the institution has more knowledge of the collections than you and your staff.

The job of the collections preparedness team is to evaluate the collection thoroughly to determine where the institution is vulnerable and what to do during an emergency. The team produces two reports for the emergency planning committee that summarize its findings:

Report 1 is a vulnerability and asset analysis that identifies the collection's vulnerability to damage and recommends measures for preventing damage. (See pages 142–53.)

Report 2 is an outline of recommended procedures and techniques for evacuating, salvaging, and recovering prioritized objects, and the role of the collections response team. (See pages 154–71.)

With the information you provide, the institution will be able to

- set priorities in the institution's efforts to prevent damage to the collection;
- know which objects to evacuate first, if necessary, and how to handle them properly; and
- recover and preserve as much of the collection as possible and as quickly as possible in the event of a disaster.

As you begin the process of compiling this information and developing your portion of the response plan, as team leader you will need to perform the following tasks:

Task 1: Assemble the preparedness team.

Task 2: Interact with other departmental teams and with the emergency planning committee (EPC).

You and your department colleagues may have spent much of your adult lives tending to the objects in the collection—so much time, in fact, that they may feel like family. As a result, the process of deciding which objects should be saved first can be painful. Similarly, the notion that people not accustomed or trained in handling collections may handle them in an emergency is near blasphemy to many collections managers and staff. An important role of the collections preparedness leader is to address this issue with all collections staff members and prepare them for such an event.

"The collections people need to recognize that everyone on staff will want to help them," says conservator and hazard mitigation consultant Barbara Roberts. "They can manage it quite well and with joy on their faces if they have trained every member of the museum staff in how to carry a tapestry or a table or whatever."

At the same time, it is important to keep the collections in perspective. Though they are the heart of the institution, they are not the sole focus of emergency planning. People take precedence. No object is worth a human life.

Task 1

Assemble the preparedness team

Personnel functioning as one well-oiled machine during emergencies produce dramatically better results than scattered, chaotic responses by individuals. That is why team building is such a critical component of true emergency preparedness. Building a successful team means taking risks that involve resolving conflict, establishing trust, and encouraging interdependence. Refer to chapter 5 on training for information on assembling and building effective teams.

You are in charge of appointing the collections preparedness team and of guiding team members in gathering accurate, efficient information and in organizing a well-developed preparedness and response plan. Select team members on the basis of three categories of skills: technical and functional, problem solving, and interpersonal. All efforts at team building should focus on the process and on accomplishing the intended tasks. Communication skills are important, as your team will be interacting with nearly every department in the institution. Involve your department colleagues in the planning process so they will more readily support the recommended changes in policy and procedures. Identifying and appointing "true believers" in emergency preparedness will help generate enthusiasm and create the proper atmosphere. Be sure to include "nonbelievers" as well; this will forge a well-balanced, cohesive unit that enables all members to do the best they can.

As part of the recommendations in Report 2, you and your team will describe the roles and responsibilities of the collections response team, which may or may not include all members of the preparedness team. This team, along with a team from each of the other three departments, will respond in an actual emergency situation.

Task 2

Interact with other teams and with the EPC

Before you begin your vulnerability and asset assessment, you will need to obtain from the EPC the overall hazard analysis. This identifies what emergencies may threaten the institution and characterizes the types of damage associated with each. It will help focus your team's efforts.

During your planning, work closely with the other three departmental teams on certain areas, as indicated below:

Safety and security

- Security of emergency shelters
- Screening of volunteers to help in evacuation/emergency salvage
- Security of the building if there is structural damage
- Security of the collection in the event of relocation or evacuation

Buildings and maintenance

- Places to store cultural objects
- Preventive building maintenance
- Housekeeping practices
- Secondary storage sites
- Evacuation routes for collections

Administration and records

- Collections insurance issues
- Inventory and intellectual control
- Documentation of activities

In collaborating with other teams, work through the EPC to set up meetings between your team and the others. This hierarchical method helps avoid territorial disputes that can occur during the process. It becomes a top-down mandate, rather than a lateral arrangement. You may want to include a member from the EPC during these meetings. When needed, include a member of the other departmental teams, as applicable. This works well as long as your team is discussing matters that pertain to this person's area of expertise. If discussions cover areas specific only to collections, it can be a waste of time for the other person.

This collaboration is required for the overall success of the emergency preparedness program. The planning process is likely to give buildings, maintenance, and security staff a higher profile, in terms of both image and responsibilities. It may also require—or cause—a shift in attitudes on the part of other professional staff.

Preparing Report 1: Vulnerability and Asset Analysis

To the collections team, vulnerability means how much loss or damage the collections will sustain in an emergency or a disaster, or from exposure to a hazard.[1] When assessing the collections' vulnerability, look for weaknesses, checking every area of the collections to determine how susceptible the objects are to damage from potential risks. The accuracy and thoroughness of the assessment greatly affects the success of efforts to protect against or minimize damage to the collections, so it is not an effort to be taken lightly.

Some examples of potential vulnerabilities are listed below. No doubt you and your colleagues are aware of some, if not all, of these weaknesses. Some may become apparent only during the analysis process. All, however, may ultimately affect the institution's potential preparedness and response capabilities. Discuss with your team the ramifications of

- objects stacked on the storage room floor;
- sloppy housekeeping practices;
- unreliable inventory and documentation of the collections;
- display objects not appropriately secured; and
- the institution's low priority in an energy crisis.

In Report 1, you will suggest protective measures to reduce the identified vulnerabilities. The next section of this chapter contains a more in-depth discussion of those measures.

The vulnerability and asset analysis also involves determining which items or groups in the collections should receive priority in protection (before an event) and in handling and moving and/or salvage (during/after an event). When you set priorities in advance, you gain time and do not try to protect or save objects of lesser importance or risk at the expense of those that truly deserve attention.

The following tasks will help your team complete the assessment:

Task 1: Look at the collections with a fresh eye.

Task 2: Assess risks of damage.

Task 3: Evaluate your documentation and inventory systems.

Task 4: Invite local agencies and individuals to participate.

Task 5: Set priorities for the collections.

Task 6: Recommend preventive measures.

Task 1

Look at the collections with a fresh eye

I myself feel stress in having to set priorities for what should be saved in an emergency situation. My entire career is built on caring for art, and so to think that I might have to leave something behind is very difficult. These are hard choices.

— Gail Joice
Senior deputy director and registrar
Seattle Art Museum

It is not unusual in cultural institutions, large or small, to find people who have worked with the collections for many years. These individuals find it especially difficult to look at the same objects in a new way.

Guide your team in regarding the collection objectively, engaging their imagination in the search for vulnerabilities. A painting by Monet, for example, becomes, for a moment, only a piece of fabric with oil paint on its surface and four pieces of wood around it, hanging on a wall. What happens to canvas and wood when soot lands on it? What does intense heat do to oils on canvas? Can one person remove and package the painting? These are the kinds of observations your team should make. Remind them that imagining and planning for the worst will help protect the collection during an emergency.

The type of exercise described here, which is used by many institutions engaged in emergency planning, requires a "stop, think, listen, talk it out" routine that is immensely helpful in facing the reality of an emergency. Experts recommend doing these scene-setting exercises often, with a different scenario each time.

Suggested Exercise

With your team, take a "worst-case stroll" through a small area of the museum. Decide on an emergency scenario, such as a hurricane that slams ashore just fifteen miles from your location. Be specific. How strong is the wind? What time of day is it? Imagining details makes the exercise more real and the end results more useful. Now list all the possibilities of damage that can occur to collections in that area. How long would it take to remove and package each of the objects, if you could do so before the emergency strikes? What are the top twelve items that three people could move to a safer environment? How long would that take?

Task 2

Assess risks of damage

How vulnerable is the institution—its people and the collection—to the threats of fire, flood, and any other emergency or hazard? Your team's job is to work with the emergency preparedness manager (EPM), the EPC, and other departmental preparedness teams to assess this vulnerability from a collections point of view.

You and your team need to assess systematically the risk of specific types of damage to the collections. In other words, you will focus on the myriad *effects* that the hazards can cause for the collections. If the EPC identifies a significant risk of flooding, what effect will water and/or mud have on the collections? Since water can swell, warp, split, rot, corrode, dissolve, and contaminate, how would it specifically affect items in the collections? The obvious answer is that water would affect different objects differently.

The following steps will ease the assessment process.

Step 1

Group objects that would be affected in similar ways

Place the collection items into categories of potential damage by asking questions such as

- What are the most likely hazards identified by the EPC?
- Which items (ceramics, unreactive metal, etc.) will be minimally affected by muddy water?
- Which items (leather, paper, wool-based textiles, etc.) are susceptible to bacterial or mold contamination?
- What could shatter in an earthquake (large sculptures, glass specimen jars, ceramics, etc.)?

Remember that fire is the leading cause of damage to cultural institutions and their collections. No institution is immune to this hazard and the damage it can bring from water, mold, smoke, and structural collapse.

Step 2

Separate categories into components for further study

Once you set up the categories, separate each into components and study these in more detail. Would you handle wet textiles differently from wet paper? Can a stone ax head remain in water longer than a glass bowl without potential damage?

These kinds of exercises not only are critical to the preparedness process, but also can inspire your team to view the collection in new and creative ways. If the institution's staff is small or does not include a conservator,

there is much conservation literature available to assist in setting priorities. An outside conservator, conservation center, or conservation training program also may be consulted. Another useful tool is the *Emergency Response and Salvage Wheel*.[2]

Task 3

Evaluate your documentation and inventory systems

> *Unfortunately, very few objects have been documented to a level that can materially assist in their recovery in the event of theft. Even for objects that have been so documented, the information collected is extremely variable.*[3]
>
> — Robin Thornes
> *Protecting Cultural Objects in the Global Information Society*

As you conduct the survey, make sure you evaluate your inventory system. Work with the safety and security team in this regard. All objects brought into a collection should be identified immediately. Do the identifying marks contain a number or code, and are these marks resistant to deletion or alteration so that they can be used to identify a stolen object? Consider that a lack of preparedness and/or prevention could be an invitation to a robbery.

Important categories of information are identified in Thornes:[4]

- photograph
- Object ID[5] number
- type of object
- object name
- title
- materials and techniques
- measurements
- inscriptions and markings
- distinguishing features
- subject
- date or period
- maker
- description

Several levels of documentation are relevant:

Object identification. Collection records ideally include a written description and image (sketch, photograph, video) of each object or group of holdings, kept in a safe storage location. Store duplicate records off-site, along with duplicate photographic records, if the budget permits. If possible, consider digitized storage of images.

Object condition assessment. Keep this written assessment with the object records, and store duplicates off-site.

Basic inventories. These are a generalized accounting of the types of objects in the collection. "If, during an emergency, you can account for only 420

sculptures and the institution has 450, you know you have a problem," explains Barbara Roberts. "Keep in mind that wet books, for example, swell and will take up more shelf space than when dry." This basic inventory is the minimum form of object-tracking recommended; however, most institutions have no workable inventories. For a detailed list of inventory considerations, refer to *Museum Security Survey*.[6]

Questions to Consider

- **If there is an electronic inventory, have you stored a hard-copy printout of the contents of each storage area inside the room, as well as off-site? (If electricity is out, a computer cannot generate an inventory list.)**
- **Who has access to copies of the collection inventory?**
- **Are the registration and conservation records up to date?**
- **Has each object been photographed and have duplicate copies been made?**
- **Have copies of the inventory been included with the off-site duplicate records?**
- **Is there an updated loan list with contact information?**

Task 4

Invite local agencies and individuals to participate

Institutions often make the mistake of overlooking local or regional services and resources. Fire departments, for example, are reservoirs of valuable information and practical assistance. The information flow works both ways: You learn from the fire officials, who in turn learn about the institution and its special needs. Consider inviting any or all of the following to make presentations to the team, and coordinating such presentations through the EPC. Other teams or all staff also may benefit by participating.

- police
- military (can be problematic in some countries)
- local chapter of the U.S. National Guard
- newspaper reporter who has covered disasters
- retired or current staff of institutions that have experienced emergencies (be sure to keep track of current phone numbers and addresses)

As a visual aid, ask presenters to bring along news clippings, videotapes, and photographs of emergencies and the damage they cause. Acquire more advice and information by talking with staff of institutions or emergency response organizations that have been through the emergencies you are studying. This kind of research is worth the effort.

"I find that it is so easy for people to abstractly talk about a flood," reports Jerry Podany, head of antiquities conservation at the J. Paul Getty Museum. "But it is a whole other thing when they have seen photos and talked to people who were there, wading through the muck. There is so much that does not get recorded but should have been."

Questions to Consider

- **What is the institution's collection mandate?**
- **What is the institution prepared to lose, and what is vital to save?**
- **What are the criteria for setting priorities, and who establishes it?**
- **Would standard forms be helpful in the process?**
- **What procedures will be established for protecting these and all objects in an emergency?**
- **Who will review the prioritization lists before they go to the EPC? Who has final approval?**

Task 5

Set priorities for the collections

Setting priorities helps determine how important each asset is to the institution, thereby indicating which assets should be protected before others. It also enables staff to concentrate on saving the most important assets during salvage and recovery operations following an emergency. Each institution's priorities will be different. If your institution does not already have a priority list, consider the questions above before beginning the process. If a priority list does exist, have these questions been considered? Your team might want to reevaluate the list.

Step 1

Determine how value is to be assessed

There are various ways to assess the importance of an object to the institution. You may want to consider a combination of the following options:

- historical/cultural/religious value
- economic value
- vulnerability of certain object to specific hazards (e.g., remove photographs, paper, and textiles first in a flood)
- your institution's mandate
- rarity or replacement possibilities (e.g., classify as "irreplaceable," "replaceable at a high cost," or "easily replaceable")

- loan status
- condition of and/or damage to objects (e.g., rescue all objects not yet damaged)

Step 2

Set priorities for handling and possible evacuation and/or salvage

Based on the criteria chosen in step 1, which items would you take if you had only thirty minutes to evacuate? If you had sixty minutes? If you had three hours? What items would you move first in a flood? Which would you move after an earthquake?

You may know the answers, but what if you are not present at the institution when an emergency strikes? Even if you are, how will others know which pieces are the most important to the institution? That is why a list is needed that indicates, in descending order, what objects are most important to save. A "top ten" list could be compiled for every section (which could amount to as many as 300 to 400 objects), or a ranking could be done of every single item in the collection. Remember, the criteria may be different for each type of hazard.

If conservators are on staff, have them discuss the list with the curators, collections managers, and/or preparators from the point of view of objects vulnerability for their areas of expertise. If no conservators are on staff, you may need to consult conservation literature or an outside conservator. See the list of conservation organizations at the end of the book (pages 261–62). Also, curators should assist in reviewing the priority list. The finalized list will become part of the overall emergency plan.

Questions to Consider

- **Should objects on loan take precedence over others?**
- **Do you have written permission from lenders to handle the objects they own in an emergency?**
- **Are the items on the priority list covered under the institution's insurance policy?**
- **Who has copies of the priority list? Where are copies stored? What are the security considerations for this list?**
- **When and how often will you update the priority list? Every time a new exhibit is installed? Who will update it?**
- **How and to whom will you distribute updates? (Be sure to include dates.)**

Task 6

Recommend preventive measures

Perhaps it is human nature to deny what we cannot predict, but as conservators who are continually fighting nature—human or otherwise—preparation for the unseen is, or should be, a daily activity.

— Jerry Podany
Head of antiquities conservation
The J. Paul Getty Museum

The vulnerability analysis indicates ways to eliminate hazards that threaten the collection and ways to reduce the potential effects of those hazards. These measures must be implemented immediately, for a plan without execution is like having no plan at all.

Implementing protection measures can be as easy as having an institutionwide cleanup day or as complex as installing an automatic fire detection/suppression system. Often, however, protection efforts advance only as far as the cheapest and easiest solutions, leaving the more complex and expensive issues until later—which often means never.

"It is like moving paintings away from leaky pipes because you spotted vulnerability, but never fixing the pipes," says Jerry Podany. "Eventually the paintings will find their way back to the same dangerous situation, and nothing has been achieved."

Instill a prevention state of mind in your team members. Protecting the collections is an ongoing process that never truly ends, and you may have to remind your team of this from time to time. You will know you are in the right frame of mind when you make it a regular practice to walk through the galleries, looking for ways to improve protection. To foster this type of thinking among your team members, consider the following:

- a weekly team trip to a different section of the institution to look specifically at prevention options
- a "protection suggestion" list posted in a central location, on which any staff member may offer ideas either by name or anonymously; a "prevention suggestion of the week" award could be given to the employee who comes up with the most effective or innovative measure; incentives could range from tickets to a local cultural event to a half day off
- a one-time "detect, protect, and collect" contest to see who can come up with the most protection measures in a specified amount of time

Resources for measures to help protect the collections can be found far and wide—and as close as the local fire department, your institution's insurance agent, and other museums or institutions in your area. Colleagues, particularly those who have helped develop their institution's plan or have participated in an emergency, may offer useful tips you may not have thought of.

Which measures should you implement first? This will vary from institution to institution, depending on budget and ability. A recommended approach is to focus first on the collections as a whole, then on storage areas, and finally on display objects.

Step 1

Protect the collections as a whole

> *A simple and inexpensive prevention measure is to use a day normally closed to the public and devote it to a thorough cleanup. This simple step alone can significantly lower the fire hazard. Cleaning up in itself makes everyone feel good and costs nothing except possibly the rental of a large trash container. It is advisable to consult local authorities on hazardous waste disposal for paint or chemicals prior to this process.*
>
> — Barbara Roberts
> Conservator and hazard mitigation consultant

You will need to work closely with the buildings and maintenance team—because the structure and the physical plant play a leading role—and with the safety and security team. Consider all factors and elements that affect the entire collection, such as poor electrical wiring and leaky roofs.

A look at common factors in library fires is telling. According to the National Fire Protection Association, factors common to the most destructive fires in libraries without automatic fire protection systems are arson, delayed discovery, delayed reporting, and the absence of any automatic suppression or detection capability.[7] All are factors that libraries and museums can protect against.

Simple smoke detection systems could aid in quicker discovery, and automatic suppression systems help provide a quicker response. (Consider ways to avoid water damage as a result of sprinkler systems, as in installing water deflectors.) Guidelines regarding when to call emergency services versus when to attempt to put out a fire by yourself are helpful in avoiding delayed reporting; developing close relations with the local fire department is also helpful.

Although it is impossible to eliminate the threat of arson, taking precautions can greatly minimize the likelihood of a serious fire. Precautions include increased security measures, perimeters around objects, and fire extinguishers installed throughout the institution. In some cases, simply taking an inventory of the collection can be the most effective protection measure. How can you begin to protect what you do not know you have?

An incident at the Huntington Library Art Collection and Botanical Gardens in San Marino, California, indicates that tidiness goes a long way. Rare, leather-bound books on the desks of scholars were soaked and nearly ruined during a "sprinkler flood" set off by a fire alarm in the building. Had the books been returned to their proper cases or otherwise protected on the desks, they would not have become wet.

The following are ideas for protecting the collection as a whole:

- Keep collections out of areas that contain physical hazards (water pipes, boilers, steam lines, etc.).

Suggested Exercise

Look around your office. What personal items can you take home? What books can be returned to the institution library or the public library? What paperwork can you file, and how much clutter can you eliminate? Be brutal in your effort to clear away as much as possible. While you are at it, look for signs of insect pests and rodents. Imagine how high the pile of unnecessary boxes and papers would be if all staff members cleared their offices as well.

- If applicable in your country, have the institution listed as a cultural institution instead of as an industrial user. This may exempt it from energy cutbacks, which can cause humidity crises.
- If you are part of a large institution, such as a university, make sure you have (or attempt to gain) control over the temperature and humidity in the collections areas (i.e., exhibit galleries, storage).
- Work with the buildings and maintenance team to ensure the soundness of the building and its systems and to establish strict construction rules to prevent fires.
- Work with the safety and security team to adopt adequate security screening procedures and to establish no-smoking rules and restrictions on food and drink in all areas that contain collections.
- With the buildings and maintenance team, consider methods to increase insulation in historic buildings to protect against weather or loss of heat during a power outage.

As you implement protection procedures, document as many as possible. Documentation is a powerful tool for communicating progress in emergency preparedness and provides evidence of the measures taken for insurance purposes. The best documentation is photographs with captions, such as "Item before/after being tied down" and "Shop before/after cleanup." Videotaped records also work well.

Display photos on walls or bulletin boards in staff areas so employees can see the progress being made toward preparedness, or distribute an emergency preparedness bulletin to all staff. This builds not only confidence in the emergency preparedness and response program but also morale on your team. Be sure to credit those on (or off) your team whose suggestions resulted in measures undertaken.

Step 2

Protect storage areas

It is common for a full two-thirds or more of a collection to be in storage (Fig. 6). Securing this space and making it as safe as possible in advance enables you during an actual emergency to turn your attention to the display objects. Of course, if most of the collection is on display rather than in storage, then the display objects would take priority over storage protection.

Work with your colleagues in buildings and maintenance on some of these activities. Ask collections staff members at other institutions for innovative and practical ideas for protecting stored collections. Considerable literature on this topic also is available.

Figure 6 Sculpture and decorative arts storage area at the Seattle Art Museum, showing preventive measures implemented to protect against earthquake—the museum's main hazard. Courtesy Seattle Art Museum. Photo: Paul Macapia.

Questions to Consider

- **Are all storage shelves and cabinets off the floor? Are they secured together or to the wall?**
- **Do all staff members who have access to storage know where fire extinguishers, flashlights, and hard hats are located in each area?**
- **Is emergency lighting found in each area?**
- **Is there padding between objects so they do not knock against one another? Is padding used as a covering for shelves?**
- **Do water, steam, or gas pipes run through storage areas?**
- **Are water detector alarms located on storage room floors? Do they connect to a central station?**
- **Are hard copies of all computer collection inventories available in case computers are inoperable? Where are the printouts stored?**

Step 3

Protect objects on display

Once storage areas are protected, attention can shift toward protecting the exhibits. Commonsense measures play a significant role in this area.

An important factor in protecting the collections is to minimize fluctuations in relative humidity and temperature, excessive light levels, and long periods of display for the various objects in the collection. Work with buildings and maintenance colleagues on these activities. If no one on staff has expertise on recommended environmental conditions for collections and historical buildings, consult with experts. Considerable literature also exists on these topics.

Questions to Consider

- **Are suspended objects (paintings, chandeliers, mobiles, etc.) hung from structurally secure locations?**
- **Are objects displayed beneath suspended items (i.e., a table below a chandelier in a room setting)? If so, is the chandelier securely held in position?**
- **How well attached are light tracks and security cameras?**
- **Are barriers in place to prevent visitors from touching objects on open display?**
- **Are small objects in open-room settings out of reach of visitors? Are they secured to an immovable support?**

Step 4

Budget for preventive measures

The planning phase not only gives you an emergency plan, but also builds the budget to carry out these activities ahead of time so that the institution's vulnerability is reduced.

— Barbara Roberts
Conservator and hazard mitigation consultant

Prevention is the most cost-effective phase of developing preparedness plans. Time and money spent in this area pays enormous dividends. The priorities for protection that you set will determine the budget for resolving these problems. It is easier to request funding or to raise money within the community for specific, concrete projects than for the amorphous goal of achieving emergency preparedness.

The problem in "selling" prevention lies in measuring intangibles. In other words, you may never know how many emergencies your prevention efforts actually eliminated.

Preparing Report 2: Outline of Response Procedure and Techniques

The second report you and your collections team will prepare for the EPC contains the recommended procedures and techniques for responding to an emergency *from a collections point of view*. It should include instructions for handling, evacuating, salvaging, and recovering prioritized objects. The report should also contain lists, such as telephone numbers of emergency storage contacts, and emergency supplies and equipment. Job descriptions for the collections response team are provided as well.

Do not kid yourself or your team: The process is a long one. The 300-word job description for the J. Paul Getty Museum emergency response collections manager—one position among many—took hours and hours of deliberations to develop.

Of course, there are plenty of emergency plan templates to help you get started. Remember, however, that your work is not done simply by copying applicable sections verbatim from another manual. The institution's greatest resource is a well-trained staff that is accustomed to thinking through emergencies. This is what the *process* of preparedness and response planning provides.

Establish an effective response system

The following tasks will help you craft a simple, detailed, and flexible response plan:

Task 1: Identify potential safe rooms and/or outside shelters.

Task 2: Develop the collections response team.

Task 3: Set guidelines for moving objects.

Task 4: Detail recovery procedures.

Task 5: Create lists of staff and resource contact information.

Task 6: Create fact sheets and maps.

Task 7: Stock emergency supplies and equipment.

Task 8: Establish routines to keep the plan viable.

Task 9: Identify and implement appropriate training.

In preparing your report, you and your team will have to address a number of important issues. Some will be general to all the team reports; others will be issues specific to collections. The questions on page 155 will help you address some issues and may prompt you to identify others.

Questions to Consider

- **Who will be in charge of keeping your part of the plan current? (People change jobs, telephone numbers change, new equipment is purchased and old equipment is discarded, companies go out of business, and agency responsibilities change.)**
- **To whom does your team report during an emergency?**
- **What will be the effect on the collections of a long-term disruption of services? A short-term disruption?**

Task 1

Identify potential safe rooms and/or outside shelters

In some emergencies, safe rooms and/or outside shelters will be necessary to house staff members, visitors, and objects. Consult with the safety and security and the buildings and maintenance teams to determine the best locations for these safe rooms and to coordinate their preparation. You may want to have storage options outside the institution as well. For example, you may want to freeze water-damaged books and papers and store them in the appropriate facility, such as a local icehouse or meat locker. After a major fire in 1988 at the Soviet Academy of Science Library in Leningrad, millions of books were safely dried by citizens using home refrigerators and returned without loss.

The following recommendations for an effective safe area have been been adapted from *Steal This Handbook!*[8] with input from advisers to this book:

Size. Ensure that the shelter is large enough to fit the maximum number of staff and visitors likely to be at the institution at any one time. Allow 5–6 square feet (0.47–0.56 square meters) per adult and 3 square feet (0.28 square meters) per child. It also should be large enough to accommodate emergency supplies and priority objects.

Accessibility. Take into account the route necessary to reach the shelter and the size of the openings through which objects must pass.

Security. The shelter must offer the highest level of security. This means a minimum number of openings so the shelter can be sealed and access controlled completely.

Physical safety. The shelter should be isolated from the exterior by adjacent rooms or corridors. Walls and ceilings should be free of plumbing, pipes, and so forth.

Environmental stability. Make sure the shelter is environmentally stable. Add materials such as carpets and curtains to buffer the relative humidity, and have humidifiers or dehumidifiers on hand.

Lighting. Make sure adequate lighting is provided. There should be no windows or skylights if the institution is in a seismic area or subject to tornadoes, to avoid the danger of broken glass.

Coordinate efforts with the safety and security team on questions such as

- Who has authorized access to the safe rooms? (Color-coded badges could visually indicate authorization.)
- How will the museum maintain security for the safe rooms or outside storage/shelters?

Task 2

Develop the collections response team

This is one of the most critical tasks in all of emergency preparedness and response planning. It is the crux of the plan: Who does what? It is not a case of assigning an individual name to a function, but rather determining which functions are necessary and then incorporating those into job descriptions. A number of alternates in a line of succession should be designated to fill each role should the primary appointee be unavailable. This flexibility is crucial, since no one knows when an emergency will strike or who will be in the building at the time.

Step 1

Compile a list of necessary actions

> *Remember that there may seem to be a lot to do. Take problems one step at a time, and slowly but surely it will all come together.*
>
> — Barbara Roberts
> Conservator and hazard mitigation consultant

What should happen when an emergency occurs at the institution? The following are but a few of the many activities that may be required from the collections response team, depending on the nature and/or seriousness of the situation:

- Develop the initial response strategy, based on the specific emergency.
- Attempt to isolate the affected area.
- Retrieve emergency supplies.
- Contact emergency organizations, area support institutions, and so forth.
- Assess damage.
- Initiate relocation, evacuation, and possibly salvage measures for the collection.
- Document all response activities (a crucial function).

Looking at other emergency response plans can inspire other activities that may not have occurred to you or your colleagues. One of the most productive ways to assemble this kind of information specific to the institution is to create scenarios such as the “worst-case stroll” exercise described on page 143.

Step 2

Develop response team job descriptions

In this step, the responsibilities of team members must be designated. Give each job a title that accurately describes the chief function of the job. For instance, you may want to assign teams and team leaders to the areas of salvage, stabilization, and supplies. Next, list each team member's duties and responsibilities. Pay special attention to the type and number of duties. Match similar duties (e.g., leadership duties, assistance duties, and physical duties) so that one person is not expected to fulfill completely different tasks.

Following that, list the staff position assigned to the responsibility, along with at least two alternates. The number of alternates you designate depends on how important certain skills are to the position. For example, if it is critical to have a person with conservation experience directing the collections response team, the team leader job description should list a number of backup people for the position. For the movement of objects, a preparator or other departmental person could serve as a backup. Remember that "appropriate training" is the operative phrase. More damage can occur as a result of careless handling than of the emergency event itself. The administration and records team, which is experienced in writing job descriptions as part of its human resources function, can coordinate the writing of job descriptions in each of the four departmental response teams.

The job description for the collection safety manager (appendix F) is from the Seattle Art Museum's *Emergency Planning Handbook*.[9] Note that in addition to simple and clear responsibilities, the description also lists five other positions in a line of succession to fill the role. The description also states to whom this team member reports and provides a checklist of actions expected of the position. The museum's plan also lists positions for conservation supervisor, art registration supervisor, and art relocation supervisor, with the appropriate checklists of responsibilities.

In a smaller institution, these responsibilities would be allocated accordingly (see a sample response plan in appendix G—guidelines for evacuating the collections from the Barbados Museum and Historical Society).[10] Checklists and guidelines help staff stay focused in their positions and follow the most efficient course of action, without missing details due to fear and confusion. They also reflect the "big picture" for the EPM and the institution. If only the first two priority tasks are completed, other teams can consult the checklist to find out what is happening and how to coordinate their actions accordingly. This procedure enhances communication and saves time.

Questions to Consider

- **Who decides when and how to remove water from a flooded gallery? Who carries this out?**
- **Who authorizes the relocation or evacuation of collections?**
- **Who is authorized to operate fork lifts and freight elevators?**
- **Who is responsible for bringing materials to the designated salvage area?**
- **Who is responsible for maintaining supply levels?**
- **Who will drive the vehicles to transport objects to a new site (and where are the keys)? Who will load and unload?**

Task 3

Set guidelines for moving objects

Resist the urge to move anything in the first steps. Even with a well-trained team, damage can occur during a relocation or evacuation process; therefore, nothing should be moved without a compelling reason to do so.

— Brian Considine
Conservator of decorative arts and sculpture
The J. Paul Getty Museum

Step 1

Establish authority for deciding if, and at what point, objects should be moved

Generally, the person designated as the collections response team leader will give the go-ahead to move objects, if conditions require. But who may move them and under what circumstances? At the Seattle Art Museum, staff members who are authorized to move objects wear blue photo identification badges during work hours. If the emergency happens after hours, the collections leader will authorize blue-badge access to those in charge of evacuating objects.

You will have to decide what to do if an object or sections of the collection are in imminent risk of damage or further damage, and no qualified staff members are available to assist in removal. Should you authorize an inexperienced person to remove the objects?

Questions to Consider

- **Must an emergency be officially declared before you can move an object?**
- **Do you need physically strong people on the collections response team?**
- **Should teams be designated for moving large objects?**
- **What are insurance policy guidelines regarding moving objects?**
- **Is it better to train people to put out a small fire rather than to move objects?**

Step 2

Coordinate with the safety and security team and the administration and records team to screen volunteers

Depending on the magnitude of the emergency, strangers may offer to help. Together with members of the safety and security team and the administration and records team, you will have to decide the following:

- Should strangers be allowed to handle objects? (Most institutions recommend that you find work for them other than working with the collections.)
- What sort of security screening and sign-in and -out procedures would be required of those volunteering to work with the collections?
- What kind of supervision would be needed? What kind of training would be needed and is practical on short notice? A golden rule is: Stop! Think! Organize! Have no more than five persons on a team, including the team leader.

Step 3

Provide guidelines for handling objects

As team leader, you need to decide how to provide special instructions for handling priority objects. Some institutions print the instructions directly on the priority list or an attachment. Often it will depend on your specific collection.

Ideally, every staff member and daily volunteer should be trained in the basics of emergency art handling. Some of those personnel should be trained in how to train others. For example, during a large-scale disaster, the military

or National Guard may be assigned to guard and/or assist in evacuation and will need to be trained on the spot. "[These individuals] are going to be part of the response effort—good or bad—and they are likely to trudge through your building and collection," cautions Jerry Podany. "With a little training, they could be a great resource."

See task 9 (pages 167–71) for further discussion of training in emergency art handling.

Task 4

Detail recovery procedures

Recovery measures occur after an event has happened. They are designed to enable the museum—and its collection—to return to normalcy in an orderly, phased, reasoned and methodical fashion. Recovery measures begin when the disaster situation has stabilized and professionals have evaluated the damage and suggested further, long-term actions. Recovery can be a long process, taking years in some cases.[11]

— John E. Hunter
Supervisory staff curator
National Park Service, U.S. Department of the Interior

Step 1

Consider damage assessment issues

Who will carry out the damage assessment? A staff conservator? A curator? A registrar? An outside conservator? This must be incorporated into the response team job descriptions, unless outside conservators will be called in. If your institution is small, you may have to assess the damage yourself. You may need to answer the following questions at that time:

- Who will give authorization that a building is safe to reenter?
- What objects are damaged?
- What is the type and extent of the damage?
- What are the priorities (depending on the criteria—e.g., damage type, object value, etc.)?
- What can be safely moved elsewhere?
- How will damage and salvage operations be documented?
- What equipment and supplies are needed?

Remember, never enter a damaged structure until it is designated as safe to do so by the authorized person (which may be the fire department official). Use the "buddy system," have a means of communication with those outside, and report out regularly.

Documentation of the damage is critical not only for salvage and conservation, but also for insurance purposes, possible legal action, fund-raising,

and controlled media coverage. Documentation equipment, such as cameras or video cameras, should be safely stored and easily accessible, along with insurance damage claim forms. If a photographic or video camera is unavailable, do the documentation in writing. Prepared checklists can make written documentation more effective.

In the United States, federal conservation money is available when a federally declared disaster has taken place and museum objects have been damaged. *However, documentation of damage, along with photographs of objects before they were damaged, is required.* Additional funding for temporary relocation of objects, equipment purchases, and so forth, also may be available through the Institute of Museum and Library Services and the National Endowment for the Humanities in Washington, D.C.

Step 2

Determine salvage and stabilization priorities

Salvaging involves retrieving collections, objects, or fragments of objects from damaged areas. Stabilizing means minimizing the damage done or damage that could occur soon. Together, the two constitute "first aid" for the collection, covering everything from completely wetting a partially wet textile (to avoid water stains) to freezing water-soaked books to applying a facing paper onto lifting paint layers.

What is salvaged and stabilized first depends on the nature of the emergency situation and on what was damaged and how. In a flood, for example, you may choose to turn your attention to a number of soaked rare books, whereas after an earthquake you may decide to focus on the shattered sculpture in the gallery entrance. Do not forget to refer to your collections priority list established during the planning phase.

Any salvage and stabilization procedures must be accompanied by the precaution that before such activities take place, consideration should be given to whether further damage would occur if the objects were (a) left in their present location and (b) simply protected for the time being until a clearer idea can be obtained of the situation and, if no conservator is on staff, a conservator can be consulted.

Questions to Consider

- **What requirements does your insurance carrier have regarding salvage/stabilization priorities and procedures?**
- **What priority do on-loan objects receive in salvage operations? Does your loan agreement address the issue? Who communicates with lenders? How?**
- **Who will document all the stabilization procedures? How will this be done? Do the emergency kits contain a supply of standard forms?**
- **Who establishes the procedures? Who will carry them out? When? Where?**

Step 3

Determine recovery procedures

You and your collections team should work with the three other departmental teams to identify recovery procedures that move the institution from a state of emergency to the state of normal operations. These recovery procedures can be used as a guide in developing a recovery plan in the aftermath of an emergency.

Collections-related recovery procedures may include some or all of the following, depending on the emergency:

- Secure the collection.
- Determine specific recovery needs and goals.
- Determine what resources are needed and mobilize them. Resources could include the department recovery team, external specialists, and supply or storage vendors.
- Gather supplies and equipment.
- Arrange for conservation assistance if objects have been damaged and the institution does not have a conservation department.
- Relocate or evacuate objects, if necessary.
- Begin object stabilization.
- Document procedures with photographs, videotape, and written records.
- Work with the administration and records team to review and coordinate claims and conservation work with insurance agents.
- Begin long-term conservation.
- Return objects to galleries or storage.

Step 4

Address issues of mental and physical well-being

> *An important part of preparedness is planning for the potentially long period of time before the building or buildings can be reoccupied. It could be hours. It could be weeks. It can be a difficult period—a time when something happens followed by another long waiting period. How do you take care of all the people in the meantime? This needs a lot of organization.*
>
> — Jerry Podany
> Head of antiquities conservation
> The J. Paul Getty Museum

During salvage and recovery, team leaders need to pay attention to pacing and motivation. Jerry Podany recalls how workers assisting in recovery efforts after an earthquake in Japan were highly organized and worked at a high energy level for extended hours. In the end, their extreme fatigue negatively affected their work. As team leader, be sure to schedule regular breaks, as well as provide food, a place to eat and rest, and bathroom facilities.

"You have to respond in a reasonable way and work that into the plan," Podany says. "If you do not have a plan in place, you respond emotionally." In Japan, Podany witnessed one recovery group patching one painting amid a rubble of pottery shards. "I thought it was silly to patch a painting when there was so much devastation around them," he recalls. "But it made a huge difference to that group. It really energized them."

Step 5

Require frank after-action reports

Every encounter with a disaster or emergency is an opportunity for learning. That is the purpose of after-action reports that detail the actions taken and the results observed. First, it is important to emphasize and praise what went right, then examine problems encountered or mistakes made. Do not allow these reports to be after-the-fact justifications and defenses of what the response team did instead of a candid assessment of what occurred—problems and all.

Indicate to team members your desire to learn from mistakes, not to punish people for them. Encourage an atmosphere of honest self-assessment, starting with yourself. What could you have done differently? What would have worked better? How could you improve your response next time? What did you learn that could be applied to the next emergency?

Task 5

Create lists of staff and resource contact information

Once you have the list, do not rest on your laurels, thinking, Well, we have a list, so we're done! Lists go out of date quickly, so it is important to update them at least once a year.

— Gail Joice
Senior deputy director and registrar
Seattle Art Museum

Furnish the EPC with the names of all your staff members, along with their work and home telephone numbers and home addresses. This way, staff can be reached at home during an emergency. If the event happens during work hours, one person can be delegated the task of telephoning each person's home to avoid jamming the phone lines. Also, develop other means of contact in the event of a widespread emergency in which the telephone systems may not be functioning. Make a list of special skills—for example, is any employee a former nurse, search-and-rescue team member, or National Guard member?

It is also important to establish communication with individuals and organizations that your team may need to contact during an emergency. For instance, if your team determines that it might need to use refrigerated trucks to move objects to a commercial freezer off the premises, you must make the arrangements now, not during the emergency. Now is also the time to create lists of names, street and e-mail addresses, and telephone and fax numbers so they are easily accessible during an emergency.

Update the lists regularly, and check the contacts at the same time. Are the listed companies still in business? Are the contact individuals still at the company? Have telephone or fax numbers or e-mail addresses changed? Use significant dates to help you remember to update the contact lists. For example, if the institution is in an earthquake-prone area in the United States, do this on April 1 (April is National Earthquake Preparedness Month).

Here are some external resources you may wish to include on the lists:

- conservators/conservation centers
- insurance agents
- warehouses/commercial freezers
- moving trucks/refrigerated trucks
- volunteers trained in emergency response and handling procedures
- emergency organization contacts (e.g., a fire chief who is familiar with the sensitivities of the collection)
- emergency equipment rental resources such as freeze-drying companies
- construction contractors
- sources for supplies and materials (including the name of the staff member authorized to make purchases)

Task 6

Create fact sheets and maps

These lists are developed in collaboration with the other preparedness teams, particularly safety and security. You will have to balance security concerns with the need for fast access in an emergency. Deposit duplicates of all these items in a safe but accessible place both inside and outside the building. Coordinate this effort with the administration and records team.

Collections department fact sheets should include the following:

- object priority list
- guidelines for protecting and handling objects
- operating instructions for special equipment
- protective measures for scientific equipment
- object relocation form
- object damage assessment report
- hazardous materials lists (work with the buildings and maintenance team to produce this list, which must be available to fire departments)

Maps that your department should produce or areas that should be included in general maps:

- gallery and collection storage areas, including location of priority objects
- chemical storage cabinets
- interior and exterior emergency supplies and equipment
- emergency shelter and storage areas
- access and keys to such areas as supplies, storage, electrical circuit boxes (carefully discuss who is authorized to hold keys for emergency situations and how to override automatic closing devices or obtain access to areas with card key entry)

See appendix H for the fact sheet list from the Getty Center's emergency planning handbook; see appendix B.2 for a page from the Seattle Art Museum plan's table of contents.

Task 7

Stock emergency supplies and equipment

An up-to-date and adequate supply of materials and appropriate equipment can mean the difference between minimal or no damage to the collections and complete disaster. You may want to coordinate supply stocking with other teams. Large quantities of expensive items or perishable materials need not be stockpiled. Instead, identify suppliers and make arrangements for emergency delivery, as needed.

Depending on your specific collections, these supplies and equipment may include (but are not limited to) these essentials:

- containers and packing material for relocating objects (pads, tape, scissors, boxes, markers, paper, etc.)
- a backup generator *and* extra fuel
- wet/dry vacuums

- fire extinguishers
- floor fans
- plastic covering sheets
- trolleys and carts
- freezers
- flashlights and batteries
- water and high-energy food (Power Bars, trail mix, etc.) for staff
- cameras, film, pens, paper, and other items for documentation

More extensive lists are included in appendix E.

The first rule of thumb regarding supplies and equipment is to store separate caches of them internally and externally so that staff members have access to undamaged supplies. Post maps of supply locations.

Some people recommend including instruction sheets for recovery methods in supply kits. Jerry Podany says handouts of that nature are an excellent backup to training and can be distributed *before* an emergency occurs. Doing so *during* an emergency is ineffective and only adds paper clutter to the disaster site.

Questions to Consider

- **Who is in charge of ensuring that supplies are kept current (e.g., batteries) and full (e.g., fuel)? How often should supplies be checked? (Annually? After drills?)**
- **Do all staff members know where supplies are located? Are maps showing these locations posted?**
- **Are supplies labeled clearly? (The Seattle Art Museum keeps supplies in large crates painted bright yellow to visually orient staff to the supply caches.)**
- **Do supplies include operating manuals and instructions for equipment?**

Task 8

Establish routines to keep the plan viable

The following are a few examples of possible daily and periodic checklist activities for the collections team. You may be inspired to think of others. Compare lists with the other department preparedness teams.

Daily checklist activities:

- Confirm with the security department that exhibit gallery cases remain secure and that all display objects are accounted for.
- Collection storage areas are locked, and the keys are in their designated locations.

- Electrical equipment, such as hot plates in the conservation laboratory, is turned off.
- Hazardous materials are safely stored, and waste materials containers are ready for disposal, as appropriate.
- Computer files and systems are backed up.

Periodic checklist activities:

- Maintain scientific equipment according to manufacturers' specifications.
- Reorder emergency supplies, if necessary.
- Duplicate new inventory documents and store them off-site with other duplicates.
- Provide the EPM with updated documents that are part of the emergency plan, including operating instructions for new equipment and a list of hazardous supplies.
- Review collection inventory documents, including loan forms.
- Update the duty roster to reflect changes in staff and other institutional changes.
- Verify that outside experts and/or resource information is up to date.

Task 9

Identify and implement appropriate training

You will need to train staff members in relocation or evacuation procedures, but more important, you will need to instruct them when to move collection items and when *not* to do so. Training in general salvage techniques also is required. Consider teaching your staff how to train volunteers for collections-related activities that you have identified as an added resource in an actual emergency.

Training is only the first step. You also must practice and conduct drills repeatedly to help determine the plan's weaknesses and to refine procedures. Work with the EPC in coordinating all training and drill exercises.

Who should be trained?

Collections are the heart of an institition. Therefore, most experts recommend that all staff members be trained in basic procedures that can save or minimize damage to these cherished objects. If a fire starts early one morning, the receptionist and three volunteers may be the only ones in the building. An earthquake late at night may find only a night security officer and a janitor on the premises. *Everyone on staff should practice being the first person on the scene of an emergency*. Your collection will be that much better off.

Training others connected to the museum, such as volunteers, trustees, and docents, can provide an additional layer of support in an emergency. Publicizing such efforts can raise community awareness and help in fundraising for prevention efforts.

What skills and knowledge are needed?

Evacuation procedures. Does everyone on staff know the immediate action to take when the emergency alarm sounds? Jerry Podany likes to test his staff's readiness with impromptu drills. He walks in, announces a scenario, and listens to employees call out their actions. If the scenario is an earthquake, a number of people will inevitably discover that they do not fit under their desks because of all the material they have accumulated in that space.

In a disaster, after the personal safety of staff and visitors is ensured, staff should turn their attention to the collections. Like lines in a play, response actions must be rehearsed regularly, but with different scenarios each time.

Questions to Consider

- **Do staff members know which objects to evacuate first? If not, can they find the priority list quickly?**
- **Do staff members know where supply kits of packaging materials are, and do they have access to that location?**
- **Do staff members know the routes to internal or external shelters? Do supplies include operating manuals and instructions for equipment?**
- **Do staff members know who is in charge and to whom they should report?**

Good intentions have ruined many an artifact. A well-meaning staff member from another department may think he or she is helping by gathering a few precious artifacts for evacuation, when in fact he or she may be doing more harm than good. You have to make sure that the urge to be a Good Samaritan does not supersede appropriate precautions for art handling.

— Gail Joice
Senior deputy director and registrar
Seattle Art Museum

Basic art handling. The following information regarding art handling, adapted from the Seattle Art Museum's *Emergency Planning Handbook*, emphasizes the importance of having only trained personnel handle art objects, except in extreme circumstances.

What if an emergency occurs and no staff members specially trained in handling works of art are on the scene? Who will protect the art? Will they know what to do without causing further damage?

All staff members must be trained in the basic procedures to protect the collections during an emergency. All art should be moved *only* by trained

personnel, unless it is threatened by imminent destruction. Because most objects require special handling, it is preferable to await the instructions of the appropriate collections staff. There are, however, situations where clear and present danger to a collection will require those who are in the area to act swiftly. It is thus crucial that all staff members receive at least minimal training.[12]

Here are some basic rules to follow:

- Do not move an object unless and/or until it is absolutely necessary to do so.
- Never pick up an object until you have identified a safe place to put it down.
- Never leave objects on the floor.
- Never attempt to carry more weight than is comfortable for you.
- Recruit the help of several people if the object is heavy or awkward.
- Never handle or lift a sculpture by a projecting member, such as an arm or head, and use both hands to support the sculpture.
- Walk slowly and carefully. Do not walk backward.
- Do not smoke while handling objects or while you are in the same room with them.
- Report all object damage immediately to the appropriate staff member.

Questions to Consider

- **Under what circumstances is it advisable *not* to handle objects?**
- **What is the process by which a staff member decides what to handle and what not to handle? Who makes these decisions?**
- **What happens when no staff member trained in art handling is available and there is no alternative but to move an object?**

The guidelines you and your team develop will be specific to the collections. As examples, see appendix I for art-handling fact sheets from the Seattle Art Museum and the Barbados Museum and Historical Society.

Salvage techniques. The first thing to remember about salvage efforts is that managing the situation is more important than the salvage itself. Once the situation is under control, efforts should focus on deciding if and when objects have to be moved, whether to follow the priority lists, or if the objects require salvage treatment.

Many variables come into play during salvage efforts. If enough staff members are present and there is minimal damage, collections staff with salvage expertise can handle the situation. But there may be times when staff members with no salvage expertise must assist. If, in your team's vulnerability assessment, potential damage effects were categorized, those can now be used to develop training activities on salvage techniques for specific types of damage. (See steps 1 and 2 under task 2, "Assess risks of damage," pages 144–45.) For example, in the case of water-damaged fabric, it may be appropriate to wet the fabric completely before it dries to avoid water stains. You can demonstrate and/or practice this with staff using noncollection textiles.

If no conservators are on staff, contact the conservation department of other institutions in the area, or local, state, or national professional conservation organizations for assistance.

Remember that caution must be used in appling any general guidelines to salvage steps, as there are a variety of determining factors in the preservation of individual objects or groups of objects. It is better to concentrate efforts on collections care and mitigation of potential damage to the collections.

The following are a few basic emergency "first aid" principles for salvage, if immediate action is absolutely necessary. They do not address all problems that will arise, but they can minimize the damage that may occur until help arrives. *The Emergency Response and Salvage Wheel* is an ideal resource for further basic guidelines.[13]

- Do not move objects unless absolutely necessary.
- Protect objects from further damage (this may or may not require moving them).
- When secure space is available, separate the damaged objects from the undamaged objects and try to maintain pre-emergency environmental conditions for both groups.
- Bag or lightly wrap damp objects made of organic materials (other than paper) in plastic and store them in a cool, well-ventilated space away from undamaged objects. Examine daily for mold growth. If any is found, open the bag to allow air drying and increase air movement.
- Lay wet or otherwise damaged paintings horizontally, face up, supported at the corners to ensure air circulation beneath them. Allow to air-dry.
- Wrap wet books or interleave wet documents with waxed paper or freezer paper as soon as possible and freeze them, or air-dry them in an adequate airflow.
- Quickly air-dry wet metal, glass, or ceramic objects. If necessary, gently mop with clean, dry, lint-free cloths.
- Keep objects that have dried in a cool, well-ventilated place, away from those that never got wet.
- Inspect partially damp objects daily for mold. Wipe off any mold with a dry cloth and increase air circulation. Isolate the objects from other objects to prevent spread of mold.

- Handle smoke-damaged, scorched, charred, or dirt-caked objects as little as possible. Do not try to clean them at this point. If they are dry, treat as dry; if wet, treat as wet.

Training methods. The following are basic methods that can be used in training activities. You may choose to employ several, either independently or simultaneously. See chapter 5 for more information on training.

- group discussions
- simulations/role playing
- supplementary handouts
- videos
- review sessions
- self-assessment exercises
- hands-on workshops
- presentations by colleagues or consultants who have hands-on knowledge of the scenarios the institution might face

Questions to Consider

Does everyone on your staff know

- **how to direct firefighters and others through local streets to the institution;**
- **how to get to the roof of the building or direct others to the roof;**
- **where emergency alarms and fire extinguishers are;**
- **the location, both off-site and on-site, of hard hats, flashlights, fresh batteries, hoses, fire hydrants;**
- **where supply kits for packaging the office equipment are (do staff members have access to that location?);**
- **the routes to internal or external shelters;**
- **who is in charge and to whom to report; and**
- **how to evacuate computer files?**

Notes

1. John E. Hunter, "Preparing a Museum Disaster Plan," in *Southeastern Museums Conference, 1991 Disaster Preparedness Seminar Proceedings*, ed. Martha E. Battle and Pamela Meister (Baton Rouge, La.: Southeastern Museums Conference, 1991), 56.
2. *The Emergency Response and Salvage Wheel* (Washington, D.C.: National Institute for the Conservation of Cultural Property, 1997) was published in cooperation with the National Task Force on Emergency Response, an initiative that also involved FEMA and the Getty Conservation Institute. It can be purchased by contacting the National Task Force, 3299 K St. NW, Washington, DC 20007.
3. Robin Thornes, *Protecting Cultural Objects in the Global Information Society: The Making of Object ID*, ed. Marilyn Schmitt and Nancy Bryan (Los Angeles: J. Paul Getty Trust, 1997), 1.
4. Ibid., 25.
5. See page 137, note 6.
6. International Committee on Museum Security, *Museum Security Survey*, ed. Diana Menkes, trans. Marthe de Moltke, based on the document by George H. H. Schröder (Paris: International Council of Museums, 1981), 24–25.
7. National Fire Protection Association, *NFPA 910 Protection of Museums and Museum Collections* (Quincy, Mass.: National Fire Protection Association, 1991), 8.
8. Adapted from Allyn Lord, Carolyn Reno, and Marie Demeroukas, *Steal This Handbook! A Template for Creating a Museum's Emergency Preparedness Plan* (Columbia, S.C.: Southeastern Registrars Association, 1994), 177–79. Used by permission.
9. Seattle Art Museum, *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994).
10. Barbados Museum and Historical Society, "Emergency Plan" (Barbados Museum and Historical Society, St. Michael, 1994, photocopy), 28–29.
11. Hunter, "Preparing a Museum Disaster Plan," 58.
12. Seattle Art Museum, *Emergency Planning Handbook*, 67–69.
13. *Emergency Response and Salvage Wheel*.

Chapter Summary

This chapter

- **outlined the role of the collections preparedness team in the emergency preparedness process;**
- **described information required in the two reports to be delivered to the emergency preparedness committee;**
- **provided guidance through the process of assessing the vulnerability of the collection;**
- **helped define the roles and responsibilities of the collections response team; and**
- **identified tasks to guide you and your team through the process of designing a response plan that is simple, detailed, and flexible.**

In review, the emergency preparedness process is a long-term commitment on the part of the institution's staff, teams, and committees. You cannot and should not expect changes quickly or easily. Interdisciplinary teamwork is difficult and requires a change in attitude that may be slow in coming. The payoff—in peace of mind, in the safety of staff and visitors, and in the protection of objects and irreplaceable records—will be great.

CHAPTER EIGHT

The Buildings and Maintenance Team

This chapter addresses the issues involving the buildings, the systems, and their maintenance that must be dealt with as the emergency plan is developed. It is designed to be a resource for you, the leader of the buildings and maintenance team.

For an overview of the emergency preparedness and response program, please consult chapters 1–3. For training ideas, see chapter 5.

> *If the building withstands the wind, holds back the water or retains structural integrity during an earthquake; if sufficient safety precautions have been installed such as fire sprinklers, alarmed water and fire sensors, flood drains, and structural supports, then complete loss can be avoided. Because of this, where your building is located, what condition it is in, how the contents are distributed, what protection it offers and receives, and how often it is maintained are just as important as defining the threats from without. If the building fails during an event, there is little, if anything, to protect the people and collection.*
>
> — Jerry Podany
> Head of antiquities conservation
> The J. Paul Getty Museum

Your Role in the Process

Because a building shelters the institution's most important priorities—people first, and collections second—it can be the first and strongest line of defense in an emergency or disaster. At the same time, poorly maintained buildings and equipment can cause or worsen emergency situations.

As head of the buildings and maintenance team, you probably are intimately familiar with your institution's structure and systems. You and other members of the buildings and maintenance staff know its structural shortcomings, its strengths and weaknesses, and its vulnerabilities. You nurse along

old and outdated systems on a daily basis, and you are aware that emergencies are a very real possibility.

If you are not the head of the buildings and maintenance department, you will have to depend heavily on the head to provide advice and guidance in emergency planning. If the institution is small, or one in which buildings and maintenance workers come from city or university work crews, you may not have building engineers or supervisors on staff; in these cases, you will have to rely on outside expertise.

The job of the buildings and maintenance preparedness team is to thoroughly evaluate the building and its systems to determine where the vulnerabilities are and what to do during an emergency. The team produces two reports for the emergency planning committee (EPC) that summarize its findings:

Report 1 is a vulnerabilities and assets analysis that recommends preparedness and protective measures: what to do to prevent damage to the building and, by extension, to people and collections, in an emergency.

Report 2 outlines the role of the buildings and maintenance response team during an emergency. It also should include lists of repair and service vendors and their contact information, as well as equipment and supplies needed, and it should address training issues pertinent to the team's expertise.

As you begin the process of compiling this information and developing your portion of the response plan, you, as team leader, will accomplish two tasks:

Task 1: Assemble the preparedness team.

Task 2: Interact with other teams and with the EPC.

Task 1

Assemble the preparedness team

Personnel functioning as one efficient, well-oiled machine during emergencies produce dramatically better results than scattered, chaotic responses by individuals. That is why team building is such a critical component of true emergency preparedness. Building a successful team means making decisions and discussing and taking risks that involve resolving conflict, establishing trust, and encouraging interdependence. Refer to chapter 5 on training for information on assembling and building effective teams.

You are in charge of appointing the buildings and maintenance preparedness team and of guiding team members in gathering accurate, efficient information and in organizing a well-coordinated response to any emergency.

Select team members on the basis of three categories of skills: technical and functional, problem solving, and interpersonal. All efforts at team building should focus on the process and on accomplishing the intended tasks. Communication skills are important, as your team will be interacting with nearly every department in the institution. Involve your department colleagues in the planning process so they will more readily support the recommended

changes in policy and procedures. Identifying and appointing "true believers" in emergency preparedness will help generate enthusiasm and create the proper atmosphere. Be sure to include "nonbelievers" as well—this will forge a well-balanced, cohesive unit that enables all members to do the best they can.

As part of the recommendations in Report 2, you and your team will describe the roles and responsibilities of the buildings and maintenance response team, which may or may not include all members of the preparedness team. This team, along with a response team from each of the other three departments, will respond in an actual emergency situation.

Task 2

Interact with other teams and with the EPC

There often is an adversarial relationship between collections and the buildings and maintenance staff. Collections people ask the impossible of buildings and maintenance people. Many do not understand the extent to which they have to make do with second-rate machinery, second-rate systems, and second-rate help in some cases. These people know the problems. They can tell you stories that will make your hair go white overnight if you listen to them. They must be given credence and they must be heard during the planning process and in training.

— Barbara Roberts
Conservator and hazard mitigation consultant

To produce workable recommendations for the emergency plan, you and your team must work closely with the other three departmental teams in the following areas:

Safety and security

- Evacuation routes for people
- Evacuation routes for collections
- Safety of emergency shelters
- Safety of buildings, if there is structural damage

Collections

- Location of and requirements for emergency shelters
- Additional storage requirements
- Guidelines for relocating and evacuating objects
- Housekeeping practices

Administration and records

- Building-insurance issues
- Repair and maintenance record keeping
- Utilities and environmental systems documentation
- Documentation of activities

In collaboration with other teams, work through the EPC to set up meetings between teams. This hierarchical method helps avoid territorial disputes that

Figure 7 Buildings and maintenance staff of the Barbados Museum and Historical Society installing shutters on the museum's windows to protect against an advancing hurricane. Courtesy of the Barbados Museum and Historical Society. Photo: Alissandra Cummins.

can occur during the process. It becomes a top-down mandate, rather than a lateral agreement. You may want to include a member of the EPC during these meetings. When needed, include a member of the other departmental teams, as applicable. This works well as long as your team is discussing matters that pertain to this person's area of expertise. If discussions cover areas specific only to buildings and maintenance, it can be a waste of time for the other person.

This collaboration is required for the overall success of the emergency preparedness program. The planning process is likely to give buildings, maintenance, and security staff a higher profile, in terms of both image and responsibilities. It also may require—or cause—a shift in attitudes on the part of other professional staff.

At the Barbados Museum and Historical Society, emergency planning has given the so-called white-collar staff members a greater appreciation for the abilities and input of building maintenance staff (Fig. 7). "Emergency planning has helped to break down a lot of barriers and misconceptions among various types of staff," says director Alissandra Cummins.

Preparing Report 1: Vulnerability and Asset Analysis

In cultural institutions, the consequences of physical damage to the building are often more crucial than the actual damage itself. For example, shingles torn from the roof during a hurricane cost little in time and money to repair, but the damage from wind and rain to precious collections, interior furnishings, collections records, and so forth, can be devastating.

How vulnerable is the building (or buildings) and its systems to fire, flood, hurricane, earthquake, and other hazards? Your team's job is to work with the emergency preparedness manager (EPM) and the EPC to assess this vulnerability from a buildings and maintenance point of view.

The accuracy and thoroughness of your analysis will greatly affect the success of the efforts to protect against or minimize loss of human life and damage to the collections. Report 1 should suggest protective measures to reduce the identified vulnerabilities. Examples of potential vulnerabilities are listed below. You and your colleagues are already aware of some or all of these weaknesses; others may become apparent only in the analysis process. All, however, ultimately may affect the institution's preparedness and response capabilities.

- The building is not secured to foundation.
- The machine room is kept spotless, but access corridors are jammed with crates, catalogues, and cafeteria/special events equipment and supplies (sloppy housekeeping practices that could increase the fire hazard, block exits, etc.).
- The institution has low priority in an energy crisis and no independent means of generating backup electricity (this could ruin objects sensitive to heat or low humidity).
- There is neither time nor equipment to keep gutters and drains clear.
- No regulations are in place regarding construction work crews (such as no supervision during construction activities).
- Fire, smoke, or water detection and/or suppression alarm systems are inadequate.
- Few employees know how to use fire extinguishers.
- Electrical chain saws are on hand for landscape maintenance and emergency use, but no hard hats, work boots, or hand tools are on hand.
- Outdoor landscaping material, furniture, or other items that could become airborne in a hurricane or tornado are not secured.
- Storage areas are infested with insects or rodents. (Should your team or the collections team address this problem?)
- Attics have no fire doors.
- Cafeteria food deliveries use the collections freight elevator.
- Requests are repeatedly made for money to upgrade systems but fall on deaf ears.
- Electrical wiring does not meet code standards. There are few power outlets, and extension cords are in constant use.

Suggested Exercise

To get your new team thinking about the building's vulnerabilities, describe a disaster scenario. For example, a worn electrical cable begins to smolder in the carpentry shop. It is midnight. You have asked repeatedly for smoke alarms, but none have been purchased.

The more details you provide for the scenario, the more useful the results will be. Have team members close their eyes and picture the scene in their minds as you talk. Give them five minutes to list every possible type of damage to the structure they can think of in such an event. Encourage them to share their results. Consider rewarding the person who has the most creative or most number of items listed. Hold a debriefing session afterward. Remind the team that the emergency preparedness process will make everyone safer and help protect the building and its collections and, therefore, jobs.

The following tasks will help you complete the vulnerability and asset analysis:

Task 1: Survey the buildings, surroundings, and systems, and identify priorities.

Task 2: Evaluate buildings and maintenance staff.

Task 3: Evaluate equipment needs.

Task 4: Invite local agencies and individuals to participate.

Task 5: Recommend building-related protective measures and list priorities.

Task 1

Survey the buildings, surroundings, and systems, and identify priorities

There is no sense in putting all this padded shelving and seismic storage in if your building is going to cave in around you.

— David Mathieson
Supervisor of conservation
Mystic Seaport Museum

Step 1

Evaluate the building and its systems

Damage to objects is often the result of structural damage to the building that houses those objects.[1] Yet the severest damage is usually from the fires and flooding that occur if system failures cause broken water, sewer, and fuel lines.

Review the facilities with various professionals, such as structural and seismic engineers, architectural conservators, electricians, plumbers, and emergency preparedness experts, who can help you determine the building's integrity and weaknesses. These professionals also can make recommendations for upgrading and improving the building. "You definitely need to know and understand the capabilities of the building containing the collection," advises Alissandra Cummins. She recommends an outside professional survey every five years.

Outside assessments have five main advantages:

1. They provide outside expertise your staff may not have.
2. They provide an "official" perspective for consideration by the board or governing body (especially if capital improvements are required).
3. They provide a fresh outlook.
4. Their conclusions often spark ideas and/or creative solutions by staff.
5. The surveys are usually solution-oriented (staff may know a problem exists but may not know how to solve it).

At the same time, you must call on the expertise and experience of your team members and staff. Administrators all too often will listen only to an outside voice, yet staff members are the ones who know the building best, as they work in it daily. Be sure to consult with all workers. Talk with custodians and janitors, as well as with building engineers and supervisors. "Make everyone part of this process," says David Mathieson. "No one is beneath it."

When performing assessments, be sure to ask: What types of problems would have the most serious consequences on the building? On people? On building services? On the building's contents? Below are several inspection checklist activities found in *Protecting the Past from Natural Disasters*.[2] Some depend on the building type.

Foundation and masonry

- Check foundations, masonry, basements, and exterior walls for seepage and condensation problems.
- Check foundation walls, steps, retaining walls, walks, patios, and similar areas for settling, cracks, heaving, and crumbling.
- Ensure that the foundation is attached to the structure.

Roofs and gutters

- Look for damaged, loose, or missing shingles or tiles. Check flat roofs for blisters, cracks, and other damage. Is there any sagging that might indicate previous damage covered with a new roof?
- Check for leaking, misaligned or damaged gutters, downspouts, straps, gutter guards, and strainers. All water-carrying elements should be cleared and free from obstructions. Downspouts should direct water away from the structure.
- Be sure that flashings around roof stacks, vents, skylights, and chimneys are not sources of leakage.

Doors and windows

- Check caulking and decay around doors, windows, corner boards, joints, and similar areas.
- Check glazing around windowpanes.
- Check weather stripping.

Questions to Consider

- **Will structural failure block any exits?**
- **Are stairs, treads, and banisters secure?**
- **Is plastic sheeting on hand?**
- **Is emergency backup lighting available throughout the building and regularly tested?**
- **Is the institution totally dependent on a local utility for power?**
- **How old is the plumbing? The wiring? Is this a problem?**
- **Is asbestos a problem that needs to be addressed?**
- **Will any new construction of facilities necessitate a change in the emergency plan?**
- **Are electrical circuits labeled correctly, and are boxes easily accessible?**
- **When was the last time fire department personnel were given a tour of the facility, and was their advice sought on disaster mitigation?**

According to the National Fire Protection Assocation,[3] an adequate fire safety survey considers at least the following:

Heating plant. Does it have the capacity to heat the building without overtaxing the system? Is it adequately cut off from the rest of the building by walls, floors, and ceiling having the appropriate fire resistance rating with all openings connecting the building to the heating plant properly protected with fire doors? If the plant is to be replaced, will the heating capacity provide for future museum expansion?

Electricity. Have circuits become overloaded because of additions? Has insulation become worn or deteriorated? Do fuses and circuit breakers provide protection? Has temporary wiring been eliminated? Can darkened storage areas be adequately lighted in an emergency? Are exit lights on separate circuits tied into a backup power supply, and does the building have emergency lighting in the event of power failure?

Concealed spaces. Are walls fire-stopped between floors? If not, can such defects be remedied by the introduction of noncombustible material? Do fire walls extend through the roof? Is the attic divided by fire partitions? Are attics, suspended ceilings, and other concealed spaces equipped with automatic fire detectors?

Lightning protection. Is it adequate? Is it in good repair and properly grounded?

Suggested Exercise

Many staff members know little about the buildings and how they work. Schedule a walk-through of the buildings with your team and members of the EPC to acquaint them with the buildings that house them and the collections. Open every door and look at every nook and cranny. Show them where the dangers are and what is in dire need of fixing. Be sure also to point out what is working well and is not a source of worry. This walk-through may be spread out over several days and will take time, but it is extremely valuable, especially when all parties discuss differing priorities.

Fire protection equipment. Are automatic sprinklers or other extinguishing systems, standpipes, and fire detection devices installed? Are they regularly inspected, tested, and maintained? Are they connected to a supervisory agency? Is the water supply adequate? Have alterations to the building or other changes nullified or reduced the effectiveness of the fire extinguishing or detection equipment?

Step 2

Evaluate the grounds and surrounding areas

If one has not already been done, consider obtaining a geological survey to help determine what the building is sitting on. Was it or is it marshland? Is it sitting on top of a landfill (which may liquefy during an earthquake)? Perhaps the site was built in what was once a riverbed (and, given enough rain, may become one again).

Your survey should include a look at whether the site is protected or threatened by trees or other buildings, or is completely exposed with no natural or human-made windbreaks. Is there a large amount of readily combustible dry grass or brush nearby? Are there risks from nearby trees, telephone poles, or buildings, such as tree limbs extending onto or over roofs? Become as familiar as possible with the activities of nature and their impact on safety.

Other questions your grounds survey should answer:

- Does landscape grading slope away from foundation walls?
- What hidden dangers exist that should be incorporated into your scenarios (e.g., gas mains near the building, nearby water mains)?
- Are lightning conductors installed?
- Are chimneys secure?
- Are there outdoor furnishings or landscape materials that could become projectiles in a tornado or hurricane? How can they be properly secured?
- Do trees near buildings need to be stabilized with guy wires?
- Is access to main roads a problem if trees come down?
- Do nearby buildings, structures, or grounds not affiliated with the institution pose any danger? If you cannot see the entire site from your grounds, request permission from the appropriate parties to go on-site to evaluate possible safety or security risks.

Set priorities for making changes. Remember that the task of preparedness can seem overwhelming unless it is taken step by step. Prioritizing needs also will help in approaching administration colleagues regarding allocation for necessary funds.

Suggested Exercise

With your team, walk through every nongallery room in your institution, staff offices included. Mentally create one big pile of the unnecessary clutter—boxes, papers, rags, trash, and so forth—that you see in all the rooms. What kind of bonfire would result if an electric wire shorted out or a careless smoker tossed a cigarette on the pile? What hazardous materials do you observe? Can you minimize the amount stored? Do you have a list of all hazardous materials stored? Is it readily available for the fire department (a legal requirement in some U.S. states)? Note and move immediately any combustibles, such as paper, wood, or textiles, that are near gas pipes or steam piping and ducts.

Step 3

Evaluate housekeeping and maintenance procedures

> *Cleaning up can lower the fire hazard in a building significantly. Closing the institution for a day and devoting it to clearing out and cleaning up is a step that in itself makes everyone feel good and costs nothing more than possibly rental of a dumpster to remove the rubbish.*
>
> — Barbara Roberts
> Conservator and hazard mitigation consultant

The best safeguard against building-related emergency situations is a well-managed facility program that includes regular inspection and maintenance and prompt repair and upkeep.

Step 4

Pay attention to details

The Mystic Seaport Museum consists of more than sixty buildings spread across 40 acres (16.2 hectares) of land. Its buildings encompass all types of construction and configuration possible in several different geographic plains. It is the kind of place where small details, if forgotten or not properly addressed, could create huge problems.

In their planning phase, museum staff members measured every doorway before constructing carts designed for evacuating the collections. All oil and fuel tanks buried underground are kept full so that the tanks do not explode through the soil when the ground above becomes saturated with water.

Questions to Consider

- **Do you schedule regular visits from utilities experts to inspect the systems?**
- **Are staff offices cluttered?**
- **Do maintenance staff members regularly inspect the building for problems, such as leaks or birds' nests in chimneys or gutters?**
- **Have overgrown trees and bushes or overhanging branches near the building been cut back?**
- **Is equipment serviced according to manufacturer recommendations?**
- **Are drains clear and clean?**
- **Are flammable and/or hazardous materials stored properly?**

Staff also gauged and recorded the distance between mean sea level and each building, discovering that many second-floor emergency evacuation locations would be underwater in a flood. The museum's experience illustrates the importance of both addressing the fine details when creating an emergency plan and testing the plan regularly to catch details that have been overlooked.

Task 2

Evaluate buildings and maintenance staff

Buildings and maintenance workers are often asked to maintain the machinery, clean drainpipes, handle electrical work, do light construction, paint, and more. Realistically, however, these are very separate trades. Listen carefully to how workers represent themselves. Find out what really is in their job descriptions. Can one person handle all aspects of a position? Does the department need to hire additional workers? Can it get by with subcontractors? What if the maintenance crew also has responsibilities elsewhere (i.e., if crew members are university employees or city workers)? What happens when maintenance employees are away on holiday or vacation? What can be done by staff members who are not engineers or electricians?

Task 3

Evaluate equipment needs

You cannot ask to purchase additional emergency equipment unless you have a realistic look at what the department currently has on hand. What is the highest priority of need, given the particular risks associated with the institution's location and based on its budget? Here are just a few items you may wish to have:

- fire detection systems
- mist systems or sprinklers to suppress fires
- fire extinguishers (and training for staff in how to use them)
- water detection devices
- water removal tools (wet-vacuum pump, squeegees, sump pump, sandbags, etc.)
- emergency generator and fuel
- portable fans, humidifiers, dehumidifiers

Questions to Consider

- **Where is the emergency standby equipment located, and who knows how to use it?**
- **Can the equipment be moved to alternative storage locations? If so, is an adequate power supply nearby?**
- **Is the heating, ventilating, and air-conditioning (HVAC) system sufficient for an emergency?**
- **Are sources of large-volume air-handling equipment listed in the emergency plan (for smoke removal or for air circulation in damp buildings)?**
- **Are supplies and equipment available to remove water and debris and to isolate affected areas?**

Task 4

Invite local agencies and individuals to participate

Do not overlook local or regional services and resources for advice and input. Fire departments, for example, are reservoirs of beneficial information and tips. Make invitations only with the agreement of the museum director and the EPC, which may itself initiate fire department visits. Initial visits should be informal to avoid code violation citations; keep in mind, though, that any identified fire hazards must be fixed. The information flow works both ways: You learn from the fire official, who in turn learns about the institution and its special needs.

Consider inviting any or all of the following to make presentations to your team. Coordinate all visits with the EPC so that other teams or all staff may benefit.

- police
- military (can be problematic in some countries)
- local chapter of the U.S. National Guard
- retired or current staff of institutions that have experienced emergencies

As a learning tool, ask presenters to bring news clippings, videotapes, and photographs of emergencies and the damage they cause. It is also helpful to talk to colleagues at other institutions around the world. The purpose, however, should be to research what those institutions did correctly and incorrectly during emergencies, not to copy their plans.

Task 5

Recommend building-related protective measures and list priorities

Protective measures are steps taken to eliminate hazards (as in fire prevention efforts) or to reduce the effects of threats to the building (as in securing buildings to their foundations in earthquake-prone areas), thereby protecting people and the collection. You and your team are to make recommendations to the EPC for both types of protection.

Protection is a long process and one that never ends. From time to time, remind the administration and your team members that protection is a priority. You also will need to remind administrators of their commitment to emergency preparedness as you lobby for funding for structural or landscape improvements. The administrators must understand that proper maintenance of the building strengthens its capacity to withstand disasters.

The priorities for protection that you set will influence the budget for resolving these problems. It is easier to request funding or to fund-raise within the community for specific projects than for the amorphous goal of achieving emergency preparedness. Set priorities for short-, medium- and long-term action and funding.

The planning phase not only yields an emergency plan, but also builds the budget to protect people and assets ahead of time, as well as reducing the institution's vulnerability. The problem in "selling" prevention is that intangibles cannot be measured. In other words, you may never know how many emergencies your prevention efforts have actually eliminated.

Suggested Exercise

Describe the following scenario to team members: Weather forecasters say a storm is headed in your direction, with gale-force winds and heavy rainfall. The storm is expected to hit tomorrow night. What is the role of buildings and maintenance staff during preparations for the storm? Who will check and stock supplies? If the power fails, will the alarm system or phones work? Will any objects be at risk if temperature control devices fail? Do windows need to be boarded up? If so, are materials on hand? Where are they stored? Are objects outside the building chained down? Are rain gutters clear? What else should be considered?

Some protection efforts may cost very little. For example, upon the recommendation of a professional structural engineer who surveyed the building, staff members at the Barbados Museum and Historical Society replaced all the nails in the roof shingles with screws and placed the screws two inches closer to each other. The project, which cost about US$200, ensured that the roof would not blow off in a strong hurricane. "Here was something practical that did not require huge amounts of money or training," reports Alissandra Cummins.

When resources for mitigation are limited, they should be directed where they will be most effective—toward the elements of the buildings that are most at risk. Your building surveys provide the data for making these decisions. Develop priorities: for example, protect people first, then collections as a whole, then storage areas, and finally display objects. Make your protection goals clear. Recognize that there may be conflicting interests within the institution, and iron these out as best as possible *before* an emergency occurs. The exercise on page 186 will help you set priorities.

The publication *Steal This Handbook!*[4] contains numerous building and maintenance protective measures. Use this information only as research in your own planning process. When you simply copy information, you lose the valuable thought process that produces an effective disaster plan.

In addition to undertaking major structural and/or landscaping improvements and establishing a good building maintenance plan, consider the following two steps as essential protective measures.

Step 1

Develop an exemplary fire protection program

> *It never fails. Flood alarms are put in after the flood. Fire alarms and sprinklers get put in after fires. How many times have people done things like this* after *the event? They're always closing the door on the barn after the horses are out.*
>
> — David Mathieson
> Supervisor of conservation
> Mystic Seaport Museum

The NFPA recommends that a fire protection program include the following:[5]

- selection, location, and maintenance of all fire protection equipment and devices
- indoctrination of all employees in the importance of fire safety and the necessity for complying with smoking regulations
- assignment of the best qualified personnel to fire brigade duties
- information regarding the function and operation of automatic sprinkler systems and the location of control valves

Suggested Exercise

Appoint two members of your team to play the roles of director and chief financial officer. Ask each of the remaining members to prepare a list of the ten most important repairs and/or preparations to make the building and its systems safe during an emergency. Have each person present that list to the "director" and "chief financial officer" and make a case for why the institution should spend precious resources to accomplish those items. At the end of the exercise, ask the entire group to come to a consensus as to what the top ten needs are. Now ask them to agree on the top five needs for funding.

- protection of the museum collection through cooperation with the fire department
- selection and training of night security officers
- inspection and maintenance of fire doors and exit facilities to ensure they are in working order and unobstructed
- daily inspection to ensure a high standard of housekeeping, which is one of the most important factors in the prevention of fire
- supervision of the installation and use of all electrical appliances, particularly those with extension cords
- supervision of storage and use of flammable liquids

The Mystic Seaport Museum was formerly lax about its smoking policy. Employees were allowed to smoke in staff rooms until a lit cigarette that had been tossed into the trash ignited a fire that burned down a retail shop. "Now," David Mathieson jokes, "if you want to smoke, you get in a raft in the river with water all around you." The museum no longer allows smoking anywhere on the premises.

Fire suppression systems. Nobody questions the effectiveness of sprinkler systems for putting out a fire, but there is some reluctance to install automatic sprinklers in cultural institutions for fear of water damage to the collections. In fact, extensive water damage usually results from fire department hose lines. Sprinkler systems avoid this by placing a small amount of water directly on the fire area and, in the best of cases, alerting the fire department at the same time. *Every expert consulted for this book agreed that automatic sprinkler systems are essential.* A few examples support their recommendation. Investigate the new mist systems. These use a great deal less water by volume and are probably the future of fire suppression for cultural institutions.

In May 1988, a torch being used to solder a copper downspout apparently ignited the combustible felt paper or wood in the roof during exterior renovation of the Louisiana State Museum in New Orleans. An estimated 500,000 gallons (1,892,500 liters) of water were used to control the fire. The museum lost the attic, the third floor (which was used for collections storage), and the historic building's roof. Total estimated loss was US$5 million. According to the fire chief in charge, had the museum been protected by a sprinkler system, only two sprinkler heads probably would have been necessary to control or extinguish the fire.[6]

Also in May 1988, the 185-year-old home of American statesman and former U.S. Vice President John C. Calhoun, which is now a museum in Clemson, South Carolina, was set on fire by burglars seeking to create a diversion. Three heads of the museum's sprinkler system, installed twenty years earlier, extinguished the fire before the fire department arrived. Less than 1 percent of the museum and its contents was damaged by fire or water.[7]

Alterations or reconstruction activities. The major cause of damage to cultural institutions and their collections is fire, and the majority of fires occur during

renovation or construction activities. To lessen these dangers, construction contracts should specify methods and responsibility for controlling these hazards, such as the following points adapted from *Protection of Museums and Museum Collections*:[8]

- Ensure that construction and service workers are accompanied at all times. (If staff is small, a volunteer could help with this.)
- Partition off construction areas from the rest of the building.
- Allow acetylene torch or welding operations by permit only, and have security staff supervise this work, equipped with extinguishers and fire resistant blankets.
- Prohibit smoking in construction areas.
- Ensure that workers store construction materials away from the building and remove all rubbish and debris daily.
- Do not permit gasoline-powered engines inside the building.
- Limit use of paint thinners and solvents and ensure that containers are safely stored in safety cabinets. (Use water-based paints whenever possible.)
- Protect fire detection systems from operations that could cause false alarms or contaminate the detectors (e.g., keep them free of dust).
- Supervise closely all hot-tar roofing projects.

Special events. Cultural institutions often host special events, such as fundraisers, lectures, recitals, exhibition openings, and private parties. In each of these events, the institution is used for a purpose for which it was not intended. Overcrowding, catering operations, highly combustible decorations, smoking, and other associated factors can create hazardous conditions.

Work with the EPM, the collections team, and other relevant staff to establish guidelines to bring party planners and well-intentioned volunteers into the prevention and preparedness process. The following points are adapted from *Protection of Museums and Museum Collections*:[9]

- Review plans before the event to prevent overcrowding, exit blockage, introduction of hazardous materials, unsafe cooking appliances, and unsafe demonstrations. Monitor the event to ensure that the occupancy limit set by the fire marshal is not exceeded.
- Ensure that nothing visually or physically obstructs or compromises an exit or exit sign, and that wiring or cords are not placed across exit routes.
- Limit all cooking and warming to museum kitchen facilities, or off the premises if there is no kitchen. Prohibit open flames in the museum area, opting instead for electric warming pans and the like. Keep a fire extinguisher within 30 feet (9.14 meters) of any cooking, warming, or hazardous operation, and ensure that contract catering employees know how to use it.

- Prohibit smoking inside buildings, as well as any demonstrations involving flammable, explosive, or toxic material.
- Ensure that all tents and canopies are noncombustible or certified fire resistant, and that all draperies, buntings, textiles, wood, and miscellaneous support and decorative materials used inside the building are fire retardant.
- Require catering staff to remove food scraps and garbage immediately after events to avoid attracting insects or rodents.
- Ensure that key staff members (event coordinators, volunteers, etc.) are familiar with all exit routes.

Note: Some of the foregoing may already be prohibited or restricted by state or federal regulations.

Step 2

Document all protection efforts

Document protection procedures as you implement them. The two purposes of documenting are to create a powerful tool for communicating progress in emergency preparedness, and to provide evidence of the implemented protective measures for insurance or legal purposes. Use photographs, videotapes, and written records to document building interiors and exteriors and grounds. Photos should have captions, such as "Building before/after tree-trimming" and "Workers replacing roof nails." Videotaped records also work well. Remember to date all records.

Post copies of the photographs on walls or bulletin boards in staff areas to show employees the progress being made toward preparedness. Or, distribute an emergency preparedness bulletin to the entire staff. These practices build not only confidence in the emergency preparedness and response program but also morale on your team. Be sure to credit those on or off your team whose suggestions resulted in measures undertaken.

Keep additional copies of all documentation in a safe location and another set off-site, balancing the need for duplicate documentation with security concerns. Review and update documentation at least once a year.

Preparing Report 2: Outline of Response Procedures and Techniques

In Report 2, you and your team will put together a buildings and maintenance response team and recommend related procedures and techniques for responding to any type of emergency. The report should give instructions for ensuring the safety of people and objects, including how to trigger notification of chain of command, handle emergency equipment, and relocate people and/or collections. It also should include lists of items such as emergency supplies and

equipment available on-site as well as off-site, and job descriptions for response team members.

There are plenty of emergency plan templates to help you get started, but do not simply copy sections from someone else's emergency plan. It is not the *written plan* that prepares an institution for an emergency, but the *process* of planning for an emergency. The fact that you and your team are grappling with these issues now, in the comfort of a conference room, means you will be better prepared to respond to a crisis. (Note: If necessary, ask for assistance during the writing phase, or work closely with a staff member responsible for typing or computer input work.)

The following tasks, undertaken *before* an emergency happens, will help you design the buildings and maintenance team's portion of the response plan in a simple, detailed, and flexible way:

Task 1: Identify potential safe rooms and/or outside shelters.

Task 2: Develop the buildings and maintenance response team.

Task 3: Detail recovery procedures.

Task 4: Create lists of staff and resource contact information.

Task 5: Create fact sheets, maps, and plans.

Task 6: Stock emergency supplies and equipment.

Task 7: Establish routines to keep the plan viable.

Task 8: Identify and implement appropriate training.

In preparing the report, you and your team will need to address a number of important issues. Some will be general to all the team reports; others will be issues specific to buildings and maintenance. The questions below will help you address some issues and may prompt you to identify others.

Questions to Consider

- **To whom does your team report during an emergency?**
- **Who will be in charge of keeping your part of the plan current? (People change jobs, telephone numbers change, new equipment is purchased and old equipment is discarded, companies go out of business, and agency responsibilities change.)**
- **Who does the building engineer report to and take instructions from in an emergency? Outside agency personnel? The emergency response coordinator (ERC)? The director? The curators?**
- **Who will coordinate with collections staff regarding when the building will be safe to reenter and when damage assessment or salvage operations can be undertaken?**

Task 1

Identify potential safe rooms and/or outside shelters

You and your team's input into the decision on where to establish safe rooms and/or outside shelters is invaluable. Work with the collections team and the safety and security team to identify potential locations, which may vary depending on the type of emergency. When selecting a shelter, consider the various threats facing the institution. If flooding is a potential hazard, the shelter must be on the highest point in the surrounding area. If wildfires are a possibility, make sure heavy brush and trees do not surround the shelter.

The following recommendations for emergency shelters have been adapted from *Steal This Handbook!* [10] and from interviews with advisers to this book:

Size. Ensure that the shelter is large enough to fit the maximum number of staff and visitors likely to be in the museum at any one time. Allow 5–6 square feet (0.47–0.56 square meters) per adult and 3 square feet (0.28 square meters) per child. It also should be large enough to accommodate emergency supplies and priority objects.

Accessibility. Take into account the route necessary to reach the shelter and the size of the openings through which objects must pass.

Security. The shelter must offer the highest level of security. This means a minimum of openings so the shelter can be sealed and access controlled completely.

Physical safety. The shelter should be isolated from the exterior by adjacent rooms or corridors. Walls and ceilings should be free of plumbing, pipes, and so forth.

Environmental stability. Make sure the shelter is environmentally stable and that it has good air circulation.

Lighting. Make sure adequate lighting is provided. There should be no windows or skylights if the institution is in earthquake or tornado country to avoid broken glass.

The shelter should be selected according to the likely threats. For internal shelters, choose a space on the lowest floor (e.g., basements) for tornadoes and hurricanes, and on upper floors if the institution is on a floodplain or near a river.

An ideal shelter should *not* have any of the following:

- exterior walls that are likely to be partially or completely destroyed
- roofs with windward edges (usually south and west), long spans, overhangs, or load-bearing wall supports
- corridors that have exit doors facing directly to the outside
- spaces with windows facing the likely direction of a storm or hurricane
- interior locations containing glass (display cases, doors, or skylights)

Questions to Consider

- **In your institution's area, from which direction do potential natural hazards (hurricanes, windstorms, brush fires, flash floods) come?**
- **How does the local emergency management agency's plan for placement of civil shelters affect your plans?**
- **In a general area emergency, the museum itself may become a shelter. How will you protect the physical plant in such a situation?**
- **Does anyone other than the janitorial staff know where the toilet paper, plastic bags, and disinfectant are stored?**

Task 2

Develop the buildings and maintenance response team

Step 1

Compile a list of necessary actions

The role of the buildings and maintenance response team will vary depending on the institution and on the emergency. The team's top priorities should be (1) to ensure that the weather is kept out and (2) to get systems back on-line as soon as possible. What buildings and maintenance staff members generally should *not* be expected to do is to assess the safety of the building after an emergency, unless they are structural or electrical engineers or are trained or qualified to do such an assessment. Emergency authorities and/or other building experts should make those determinations.

It is essential that the buildings and maintenance response team be allowed to concentrate on the building and its systems. Team members should not be pulled off for security or collections priorities until *they themselves* feel they have their equipment under control. Cooperation with other teams is important in making the building safe enough for people to reenter so the needs of the collections may be addressed. The director and the ERC should know buildings and maintenance staff capabilities *in advance* so that impossible requests and expectations are not made. It is also critical to ensure that team members work sensible shifts, allowing them sufficient time to rest and eat.

Here are some types of actions for which your team may be responsible (not necessarily in this order):

- Turning off the main gas valve, all electrical power, and other applicable utilities (depending on the nature and extent of the emergency).
- Conducting an initial site survey of the building and grounds as soon as possible after authorities have deemed the building safe to reenter.

- Securing shutters and/or nailing plywood sheeting to windows and doors.
- Sandbagging doors.
- Surveying the buildings and grounds for lock-down preparedness.
- Gathering emergency supplies and equipment for buildings and maintenance work.
- Topping off gasoline tanks in cars, trucks, chain saws, generators, and pumps.
- Checking all electrical equipment and unplugging if appropriate. (Staff members who use computers should be trained in what to do and when to do it.)
- Arranging for backup electricity. Coordinate with the safety and security team regarding clean water, recovery operation areas, and so forth.
- Documenting building and/or equipment damage with photographs, videotapes, and/or written records, or coordinating this task with other documentation teams.
- Contacting specialists (e.g., structural engineers, electricians, etc.) as soon as possible after discussion with the ERC.
- Shoring up damaged structural elements if team members have the appropriate knowledge.
- Trying to bring the building environment under control, while keeping the collections team updated.
- Clearing plant debris and downed trees to permit access where necessary.

At the Mystic Seaport Museum, staff members in every department—including building and ground maintenance—have a series of procedures to go through as a storm approaches, beginning forty-eight hours before a storm is expected to hit and extending until after the storm.

Step 2

Develop response team job descriptions

Designate responsibilities by position title, rather than by individual, so that if the person who is the primary designate for the response role is unavailable, the person who is next in the line of succession assumes the responsibilities of the response role. You may want to assign team leaders in the areas of grounds, utilities, and site. Group similar duties (e.g., leadership duties, assistance duties, and physical duties) so that one person is not expected to carry out too many different duties.

How many positions you assign in the line of succession will depend on how important certain skills are to the role. For example, if it is critical to have a person with engineering experience directing the buildings and maintenance response team, it would be advisable to designate a number of backups

for the team leader. For sandbagging and boarding up windows, most people can fill the position if they have some training and are physically capable. Committing the responsibilities of each person to paper helps to define roles and familiarizes each person with his or her role and that of colleagues.

Be sure to build in flexibility. The goal in establishing a response team is to create generic positions that anyone can fill in an emergency. In other words, staff members should not be rigidly bound to a specific position. Chances are just as good that the night janitor will end up shutting off utilities and shuttering windows.

The administration and records team, which most likely is experienced in writing job descriptions as part of its human resources function, can coordinate the writing of job descriptions for each of the four departmental response teams.

The response team job description (appendix J) for the building systems supervisor position is from the Seattle Art Museum's *Emergency Planning Handbook*.[11] Note that in addition to simple and clear responsibilities, the description also lists three positions in the line of succession in the event that the person in the primary designation position is unavailable. The description also states to whom this team member reports, and provides a checklist of actions expected of the position. In short, nearly anyone could fill the position if necessary.

Suggested Exercise

Describe the following scenario to team members: Imagine that the basement is under water. Who is in charge of emergency response actions in this situation? The person who can operate the pump? The collections staff members wading in the water trying to evacuate objects? The person who knows the most about how to drain out the water? The ERC? (Correct answer: the ERC.) Have team members discuss the implications of each answer given.

Task 3

Detail recovery procedures

Recovery measures occur after an event has happened. They are designed to enable the museum—and its collection—to return to normalcy in an orderly, phased, reasoned and methodical fashion. Recovery measures begin when the disaster situation has stabilized and professionals have evaluated the damage and suggested further, long-term actions. Recovery can be a long process, taking years in some cases.[12]

— John E. Hunter
Supervisory staff curator
National Park Service, U.S. Department of the Interior

Step 1

Consider damage assessment issues

When is it safe to enter the building? Who will make the damage assessment? How will this assessment be conducted? Working with the three other departmental preparedness teams, you and your team will build damage assessment procedures into the response plan.

One person must be responsible for assessing the condition of buildings and building systems, including the structural and nonstructural integrity of buildings; the functioning of mechanical, electrical, and plumbing systems; and the functioning of data and telecommunications systems. Consider the

qualifications of your staff first, then determine whether outside expertise will need to be brought in to conduct this assessment.

If there is adequate expertise in-house, have the team develop checklists for assessing the damage. The checklist for assessing structures would include such items as "walls of primary and outlying buildings structurally sound," "roofs intact and structurally sound," and "shelving securely bolted and upright." If the institution has more than one structure, determine the order of priority for the damage assessment.

Documentation of physical damage is critical not only for salvage and conservation of historic buildings, but also for insurance purposes. If the institution has a risk manager, involve that person in the planning process. Documentation equipment, such as a camera or video camera, along with insurance damage claim forms, should be safely stored and easily accessible. If visual documentation equipment is unavailable, do the documenting in writing. Prepared checklists can make written documentation more effective.

In the United States and other countries, federal funding is available when a museum is affected by a natural emergency. *Documentation of damage, along with photographs of objects before they were damaged, is required.* In the United States, additional funding for temporary relocation of objects, equipment purchase, and so forth, may be available through the Institute of Museum and Library Services and the National Endowment for the Humanities in Washington, D.C.

Questions to Consider

- **Who will oversee the containment and cleanup of spills?**
- **Who will mark hazards and hazardous areas? How will these areas be marked?**
- **Who prioritizes the need for repairs and restoration of essential services and repairs of damaged utilities, buildings, and equipment?**

Step 2

Determine recovery procedures

Work with the three other departmental teams to identify recovery procedures that move the institution from a state of emergency to the state of normal operations. In the aftermath of an emergency, these recovery procedures can be used as a guide in developing a recovery plan. Remember that in many emergency situations, staff can reenter the building only after it has been declared safe to do so by the relevant authorities (e.g., the fire department).

Buildings and maintenance recovery procedures include the following:

- Help determine specific recovery needs and goals.
- Organize resources, including recovery and cleanup teams, supplies, and equipment.
- Arrange for backup electricity, clean water, recovery operation areas, and so forth.
- Secure the buildings and grounds, installing barricades if necessary.
- Secure the services of structural engineers, architects, qualified contractors, and architectural conservators, as appropriate.
- Thoroughly inspect and repair power and mechanical systems and equipment before activating them.
- Monitor buildings and grounds for long-term damage.

Step 3

Address issues of mental and physical well-being

> *An important part of preparedness is planning for the potential long period of time before the buildings can be reoccupied. It could be hours. It could be weeks. It can be a difficult period—a time when something happens followed by another long waiting period. How do you take care of all the people in the meantime? You have to respond in a reasonable way and work that into the plan. If you do not have a plan in place, you respond emotionally.*
>
> — Jerry Podany
> Head of antiquities conservation
> The J. Paul Getty Museum

During salvage and recovery, team leaders need to pay attention to pacing and motivation. Be sure to schedule regular breaks, as well as provide food, a place to eat and rest, and bathroom facilities. Jerry Podany recalls how workers assisting in recovery efforts after an earthquake in Japan were highly organized and worked at a high energy level for extended hours. In the end, their extreme fatigue negatively affected their work.

After the same earthquake, Podany witnessed one recovery group patching one painting amid a rubble of pottery shards. "I thought it was silly to patch a painting when there was so much devastation around them," he recalls. "But it made a huge difference to that group. It really energized them."

Step 4

Require frank after-action reports

Every encounter with a disaster or an emergency is an opportunity for learning. After-action reports that detail actions taken and results observed are a key teaching tool. It is important first to emphasize and praise what went right, then to examine problems encountered or mistakes made. Do not allow these reports to be after-the-fact justifications and defenses of what the response team did; rather, they should be a candid assessment of what went on, problems and all.

Indicate to your team your desire to learn from mistakes, not to punish people for them. Encourage an atmosphere of honest self-assessment, starting with yourself. What could you have done differently? What would have worked better? How could you improve your response next time? What did you learn that could be applied to the next emergency?

Task 4

Create lists of staff and resource contact information

Once you have the list, do not rest on your laurels, thinking, Well, we have a list, so we're done. Lists go out of date quickly, so it is important to update them at least one a year.

— Gail Joice
Senior deputy director and registrar
Seattle Art Museum

You will need to furnish the EPC with the names of all your staff members, along with their work and home telephone numbers and home addresses. This information will allow staff to be reached at home during an emergency. Also, make a list of special skills at hand—for example, is an employee a former nurse, search-and-rescue team member, or National Guard member?

Put together lists of names, telephone and fax numbers, and street and e-mail addresses of individuals and organizations with which your team might have contact during and after an emergency. Update the lists regularly. Make contact with each of these organizations or individuals now, apprising them of their projected role in the institution's response plan. Coordinate your lists with those of the other departmental teams.

The following are sources you may wish to include in your lists. Check to ensure that each vendor is insured and licensed, if applicable. Work with administration to establish credit with the sources to be used in the event of an emergency.

- fire department/police/ambulance
- utility companies
- structural engineers and architects
- heating, ventilating, and air-conditioning (HVAC) and other systems service engineers
- carpenters
- fumigation companies
- equipment supply or rental companies
- locksmiths
- hardware stores, lumberyards
- roofers
- plumbers
- glaziers
- electricians
- landscape services

Questions to Consider

- **Where do you keep your resource list?**
- **Who is keeping it current?**
- **How often is it updated?**
- **Where is the off-premises copy located?**
- **Who will be responsible for contacting these people?**

Task 5

Create fact sheets, maps, and plans

Develop fact sheets, maps, and plans with other teams, particularly safety and security. Deposit duplicates of these documents in safe but accessible places inside and outside the building, and coordinate the storing of off-site copies with the administration and records team. Security concerns will need to be balanced against availability in an emergency.

Department-related fact sheets should include

- operating instructions for emergency equipment, such as generators and radios;
- location and instructions for turning off valves for gas, electricity, water, and other utilities and mechanical systems; and
- a list of hazardous materials (work with the collections team to produce this list, which must be made available to fire departments).

Maps should include

- emergency exits and evacuation routes;
- emergency shelter, supplies, and first-aid kit locations; and
- access to and location of keys to such areas as supplies, storage, and electrical circuit boxes.

Note: Carefully discuss who is authorized to hold keys for emergency events and how to override automatic closing devices or obtain access to areas with card-key entry.

Plans should include

- utility systems (electricity, water, gas, and telephone);
- architectural blueprints, with number and location of all doors, windows, and stairways ("as built" drawings are well worth the extra expense);
- mechanical system plans (heating, ventilation, and air conditioning); and
- fire detection and suppression systems.

Task 6

Stock emergency supplies and equipment

Coordinate with other teams and the EPC to acquire general supplies, such as boxes, first-aid kits, and tape. Supplies and equipment specific to the tasks of your team are also needed. Store emergency supplies in two locations: inside the institution for quick access, and outside the institution in case of evacuation or if the building is not occupied when the emergency occurs. Large quantities of expensive items or perishable materials need not be stockpiled. Instead, identify suppliers and make arrangements for emergency delivery, as needed.

Buildings and maintenance on-site emergency supplies should include the following:

- ladders
- bolt cutters
- plastic tarpaulins, duct tape
- axes
- hand saws
- nonelectric tools, as well as cordless, rechargeable hand drills (with bits)
- carts and trolleys
- emergency generator and fuel
- fire extinguishers
- plywood
- nails, screws, assorted fasteners
- rope, twine, binding wire
- crowbar
- portable humidifiers, dehumidifiers, fans (or easy access to rental equipment through a prearranged contract)
- blotting paper, towels, sponges

Suggested Exercise

During a meeting of the buildings and maintenance team, conduct a mental exercise. Ask members to close their eyes; then propose an emergency scenario. For example, a violent earthquake hits, or a fire breaks out in a workroom. Ask a volunteer to describe, step by step, how he or she would respond. Ask detailed questions: What do you do first? Whom do you call? What telephone do you use? Where are the keys? Where are the necessary tools, supplies, maps, and lists? Encourage others to make recommendations.

- buckets, shovels, rakes, hoes
- fire retardant overalls, gloves, hard hats, boots

For ideas on other supplies and equipment—for a mobile/portable first-aid box, an emergency response cart, and a disaster supply box—see appendix E.

Supplies should be based on the types of potential emergency situations identified in the risk assessment. For example, if the institution is in a flood-prone area, relevant items—such as squeegees, brooms, and pumping devices, as well as plastic tarps, sandbags, antibacterial soaps, and clean drinking water—should be stocked in sufficient quantities.

Questions to Consider

- **Have you provided sufficient protection for the supplies so they will be available and undamaged in the event of a disaster?**
- **Are two ladders enough during an emergency? Four hammers?**
- **What emergency equipment can the museum borrow from local emergency authorities (e.g., barricades, tarpaulins, tents, drying or pumping equipment, vehicles, auxiliary lighting, etc.)? Remember, however, that you'll be on your own in a big event.**
- **What are nearby sources to replace damaged or inaccessible materials? Where is the "shopping list"? Who can purchase the materials?**
- **Have you communicated clearly to all staff members where these supplies are located; have you labeled them clearly; and have you posted maps showing where emergency supplies and shut-off valves and switches are located?** [13]

Task 7

Establish routines to keep the plan viable

The following are a few examples of possible daily and periodic checklist activities for the buildings and maintenance team. You may be inspired to think of others. Compare lists with the other departmental preparedness teams.

Daily checklist activities:

- Electrical tools are unplugged.
- Hazardous materials are returned to appropriate storage each night.
- Construction and/or renovation areas have been fully checked to ensure that equipment is turned off and unplugged, as appropriate.
- Cigarette disposal containers have been emptied.

Periodic checklist activities:

- Check that fire extinguishers are inspected and recharged as necessary (this responsibility may be shared with or assumed by the safety and security team).

- Ensure that updated documents (revised plans, etc.) are given to the adminstration and records team for inclusion in the institution's off-site set of records.
- Ensure that equipment is inspected and serviced according to manufacturer specifications.
- Check emergency supplies and reorder if necessary.
- Verify updated contact information for outside experts and/or resources.

Task 8

Identify and implement appropriate training

Getting buildings and maintenance people to train others to help them can be difficult. They are used to working alone and being criticized for everything they do; therefore, gaining their confidence is hard.

— Barbara Roberts
Conservator and hazard mitigation consultant

After Hurricane Hugo devastated the Caribbean and the southeastern seaboard in 1989, the staff of the Barbados Museum and Historical Society actively pursued a policy of disaster preparedness. As outlined in the case history in chapter 1, the museum adopted a basic model plan in 1990 that simply outlined major activities to be taken during an emergency. "We thought we were wonderful because we had a plan," director Alissandra Cummins says. "But we had never practiced it, and we had not properly adapted it to our needs." Once the museum began practicing the plan, a multitude of deficiencies were noted, including the need for a team approach to disaster response. Now each team drills at least once a year, reporting all suggestions for improvement to the museum's central planning committee.

Training and regular drilling enables everyone on staff to react automatically in emergencies. It can make the difference between a smoldering wastebasket fire and a fire-gutted building. With regard to buildings and maintenance activities, you will need to train all staff members in activities such as

- shutdown procedures;
- location of utilities switches and how to turn them off; and
- use of specialized tools.

When training staff to shut off utilities, be sure to indicate which, if any, should not be shut off. "If you shut off water to some steam boilers, they will explode," Barbara Roberts warns. "You cannot just say, 'Shut off the systems.'" Color-coded pipes and switches can help, but training and familiarity are the most important preparedness steps.

Consider sending building managers to national training sessions, or holding a one-day brainstorming session for area building managers. The following are a few basic training methods. You may choose to employ several, either independently or simultaneously. See chapter 5 for more information on training.

Suggested Exercise

After your institution's emergency plan is in place, do impromptu tests of various staff members to see if they can follow such instructions as "Go to chiller no. 2 and turn the cog," or "Go and shut off electricity to the west wing." If they do not know what to do, walk them through the procedure. If they successfully follow the instruction, acknowledge their good work.

- group discussions conducted while standing in front of the equipment being discussed
- simulations/role-playing
- supplementary handouts
- videos
- review sessions
- self-assessment exercises
- hands-on workshops
- presentations by colleagues or consultants who have firsthand knowledge of the scenarios the institution might face

Questions to Consider

Does everyone on staff know

- **how to direct firefighters and others through local streets;**
- **how to get to the roof of the buildings and direct others to the roof;**
- **where emergency alarms and fire extinguishers are;**
- **location, both off-site and on-site, of hard hats, flashlights, fresh batteries, hoses, fire hydrants;**
- **location of supply kits for packaging the office equipment, and if staff members have access to that location;**
- **the routes to internal or external shelters;**
- **who is in charge and to whom to report; and**
- **how to evacuate computer files?**

Notes

1. John E. Hunter, "Preparing a Museum Disaster Plan," in *Southeastern Museums Conference, 1991 Disaster Preparedness Seminar Proceedings*, ed. Martha E. Battle and Pamela Meister (Baton Rouge, La.: Southeastern Museums Conference, 1991), 55.
2. Carl L. Nelson, *Protecting the Past from Natural Disasters* (Washington, D.C.: Preservation Press, National Trust for Historic Preservation, 1991), 87–88.
3. Reprinted from National Fire Protection Association (NFPA), *NFPA 911 Protection of Museums and Museum Collections* (Quincy, Mass.: National Fire Protection Association, 1991), 15–16. Copyright ©1991, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety. Used by permission.
4. Adapted from Allyn Lord, Carolyn Reno, and Marie Demeroukas, *Steal This Handbook! A Template for Creating a Museum's Emergency Preparedness Plan* (Columbia, S.C.: Southeastern Registrars Association, 1994).
5. NFPA, *Protection of Museums*, 8–9. Used by permission.
6. Ibid., 6. Used by permission.
7. Ibid. Used by permission.

8. Ibid., 16–17. Used by permission.
9. Ibid., 19–20. Used by permission.
10. Adapted from Lord, Reno, and Demeroukas, *Steal This Handbook*! 177–79. Used by permission.
11. Seattle Art Museum, *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994).
12. Hunter, "Preparing a Museum Disaster Plan," 58.
13. Gail Joice, "Questions to Ask Yourself When Preparing a Disaster Plan" (AAM Risk Management and Insurance Committee, American Association of Museums, Washington, D.C., April 1994, typescript).

Chapter Summary

This chapter

- **outlined the role of the buildings and maintenance preparedness team in the emergency preparedness process;**
- **described information required in the two reports, to be delivered to the emergency planning committee;**
- **provided guidance through the process of assessing the vulnerability of the institution's buildings and maintenance program;**
- **helped define the roles and responsibilities of the buildings and maintenance response team; and**
- **identified tasks to guide your team through the process of developing a response plan that is simple, detailed, and flexible.**

In review, the emergency preparedness process is a long-term commitment on the part of staff, teams, and committees. You cannot, and should not, expect changes quickly or easily. Interdisciplinary teamwork is difficult and requires a change in attitude that may be slow in coming at first. The payoff—in peace of mind, in the safety of staff and visitors, and in the protection of objects and irreplaceable records—will be great.

CHAPTER NINE

The Administration and Records Team

This chapter addresses issues relating to records, computer documentation, and personnel administration that must be dealt with as the institution builds its emergency plan. It is designed to be a resource for you, the leader of the administration and records team.

For an overview of the emergency preparedness and response program, please consult chapters 1–3. For training ideas, see chapter 5.

Your Role in the Process

Losing data and records in an emergency *usually* is not a threat to people or to cultural institutions; however, some natural history specimens or archaeological shards, for example, may be rendered totally irrelevant without the proper documentation. Data generally ranks far behind protection of life and safety of the collection in the hierarchy of emergency priorities. Because of this, you may consider your team's role in the emergency preparedness process less critical than that of the collections, buildings and maintenance, and safety and security teams. Keep in mind, though, that although your work may not be critical to human life, your contributions and those of your team can make a huge difference in the museum's ability to recover quickly after an emergency (Fig. 8).

The job of the administration and records preparedness team is to thoroughly evaluate administrative functions and record-keeping systems to determine where the institution is vulnerable; to evaluate personnel and legal issues related to emergency preparedness and response; and to identify their own roles during an emergency. The team will produce two reports to the emergency preparedness committee (EPC) that summarize its findings:

Report 1 is a vulnerability and asset analysis that recommends preparedness and protective measures, including what should be done to prevent damage to museum administrative functions and to prevent destruction of important data in the event of an emergency.

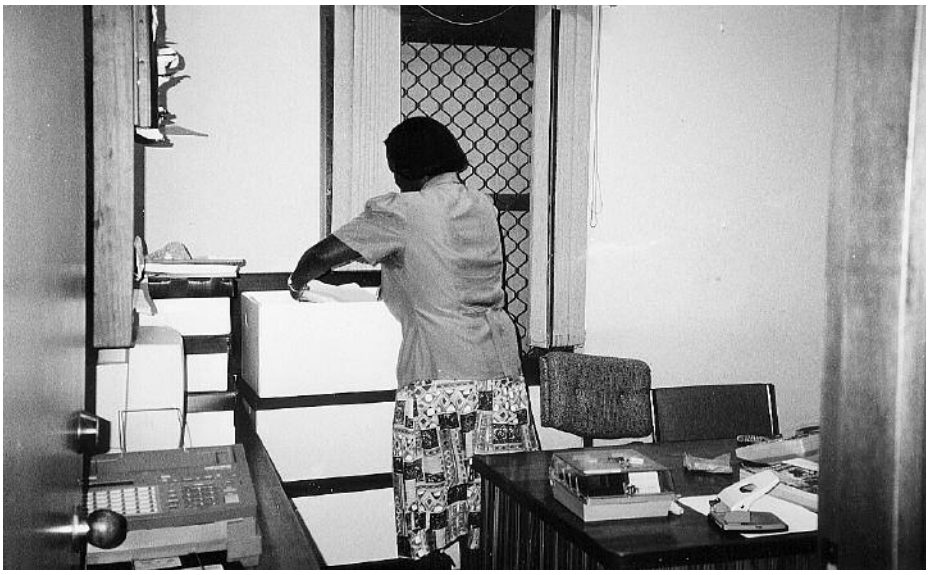


Figure 8 Administration staff person packing files and backing up computer records in preparation for Hurricane Georges. Courtesy of the Barbados Museum and Historical Society. Photo: Kevin Farmer.

Report 2 outlines the role of the administration and records response team during an emergency. It should include lists of service vendors and their telephone numbers, as well as equipment and supplies needed. It also should note training issues pertinent to this area.

To begin the process of compiling information and developing the administration and records team's portion of the emergency plan, you, as team leader, will perform the following tasks:

Task 1: Assemble the preparedness team.

Task 2: Interact with other teams and with the EPC.

Task 1

Assemble the preparedness team

Personnel functioning as one well-oiled machine during emergencies produce dramatically better results than scattered, chaotic responses by individuals. That is why team building is such a critical component of true emergency preparedness.

You are in charge of appointing the administration and records team and of guiding team members in gathering accurate, efficient information and in organizing a well-coordinated response to any emergency. Select team members on the basis of three categories of skills: technical and functional, problem solving, and interpersonal. All efforts at team building should focus on the process and on accomplishing the intended tasks. Building a successful team means taking risks that involve resolving conflict, establishing trust, and encouraging interdependence. Refer to chapter 5 for information on assembling and building effective teams.

As part of the recommendations in Report 2, you and your team will establish and take on the roles and responsibilities of the administration and records response team, which may or may not include all members of the preparedness team. This team—along with a team from each of the other three departments—will respond in an actual emergency situation.

Task 2

Interact with other teams and with the EPC

> *Competition for budgetary and personnel resources is not a luxury in an emergency. If the emergency priorities of life safety and collection protection are to be met, all of the museum's resources must be placed immediately, totally, and non-competitively at the disposal of those acting to save the collection.*[1]
>
> — John E. Hunter
> Supervisory staff curator
> National Park Service, U.S. Department of the Interior

To produce your reports for the EPC, you will need to work closely with the three other departmental teams in the following areas:

Safety and security

- Evacuation routes for equipment and/or furniture
- Volunteer screening and coordination
- Security of evacuated data
- Fire prevention efforts
- Temporary operations headquarters

Collections

- Collection insurance issues
- Volunteer coordination
- Inventory lists
- Documentation of activities

Buildings and maintenance

- Documentation during relocation or evacuation
- Repair and maintenance record keeping
- Volunteer coordination
- Building-insurance issues

In collaborating with other teams, work through the EPC to set up meetings between your team and the others to help avoid territorial disputes. It then becomes a top-down mandate rather than a lateral agreement. If necessary, you may want to include a member from the EPC during these meetings. Include on your team a member of the other departmental teams, as applicable. This works well as long as your team is discussing matters that pertain to this person's area of expertise.

Collaboration is required for the overall success of the emergency preparedness process. This process is likely to give buildings, maintenance, and security staff a higher profile in terms of both image and responsibilities. It may also require—or cause—a shift in attitudes among other professional staff.

Preparing Report 1: Vulnerability and Asset Analysis

How vulnerable are the institution's records and other operational systems to the threats of fire, flood, hurricane, earthquake, and other emergencies or hazards? For example, how quickly can you generate information on

- which artifacts were in the east wing at the time of the fire;
- the loss of value sustained; and
- the itemized cost to rehabilitate the building and reopen it to the public?

Does the biggest threat to the institution come from inadequate insurance coverage of the buildings and/or equipment? Will you be able to recover important data after an emergency? Work with the emergency preparedness manager (EPM) and the EPC to assess the institution's vulnerabilities from an administration and records point of view. The accuracy and thoroughness of your analysis will greatly affect the speed with which the institution can recover after an emergency. Report 1 should contain protective measures to reduce the vulnerabilities your team discovers.

Some examples of potential vulnerabilities are listed below. You and your department colleagues probably are already aware of some or all of these weaknesses; some may become apparent only in the analysis process. All, however, may ultimately affect the institution's preparedness and response capabilities.

- Staff members back up their individual computer files periodically, but no systemwide backup occurs. Data are backed up regularly, but not the application programs that allow staff to access and recover those data.
- The inventory of furnishings, equipment, and supplies is not complete.
- Hard-copy documents have not been duplicated for ten years.
- No system exists for tracking assets.
- Duplicate documents are stored inside the building.
- Insurance coverage is inadequate.

The following tasks will lead you and your team through the process of information gathering in order to prepare Report 1:

Task 1: Evaluate record-keeping systems and procedures.

Task 2: Anticipate financial and legal concerns.

Task 3: Review insurance coverage and procedures.

Task 4: Evaluate equipment/data safety and needs.

Task 5: Invite local agencies and individuals to participate.

Task 6: Recommend records-related protective measures.

Suggested Exercise

To get your new team thinking about vulnerabilities within the data systems, describe an emergency scenario, such as a sudden and strong earthquake. Be specific. How strong is the earthquake? What time of day is it? Details help make the exercise more real and the results more useful. Have team members close their eyes and picture the scene in their mind as you talk. Give them five minutes to list every type of possible calamity that an earthquake can cause. Were computers thrown to the ground? Did the earthquake touch off a fire? What will happen to both computer and hard-copy records? Encourage team members to share and discuss their responses. Hold a debriefing session after the exercise. Remind the team that the emergency preparedness process will make everyone safer.

Questions to Consider

- **Is there a complete inventory of all furnishings, equipment, and gift shop stock?**
- **If the computer system goes down in a power outage, what will you lose?**
- **How will you recover information stored on computer tapes and drives?**
- **Are duplicates of legal/official documents (i.e., constitution, leases, contracts, site plans, etc.) stored safely off-site?**
- **Will a power outage lock up book or collections compactor stacks?**
- **Do you have hard copies of tour booking schedules, as well as copies of names, telephone numbers, and addresses of staff, trustees, donors, loaners, and so forth?**

Task 1

Evaluate record-keeping systems and procedures

Computers are way behind art in emergency priorities, but people realize that data about the art is a close second.[2]

— Joe Shuster
Chief of information technology
Seattle Art Museum

What kind of information is being recorded and by which process? Where are the data being stored? Can the system—computer or hard copy—provide you with useful information after an emergency? These are the main questions to ask in accomplishing this task.

Step 1

Evaluate inventories

Administration inventories. Administration departments at most institutions maintain a complete inventory of the institution, including furnishings, equipment, museum store stocks, and library books. The administration and records team is responsible for all emergency preparedness and response considerations concerning these records.

To assess the adequacy of the institution's insurance coverage and of insurance reimbursement after an emergency, you need to be able to track assets. This can mean simply a file folder with furniture and equipment receipts, or vehicle papers (with duplicate copies stored off-site), or a more formal computerized database.

Up-to-date valuations for collections are required for insurance claims. Establishing values for total or partial loss payments after the object

is destroyed is extremely difficult. Accurate numbers count if objects are to be grouped by type and value—for example, 500 objects at US$25 and 10,000 objects at US$150. This should be discussed with the insurance broker and underwriter; otherwise, every object that is damaged will have to be listed individually.

Collections inventories. Larger institutions have record-keeping systems for collections that are separate from the rest of the operational data. Such is the case at the Seattle Art Museum, where the collections record-keeping system contains all catalogue information, documents for objects on loan, deeds of gifts, and collections insurance. The collections team is responsible for all emergency preparedness and response considerations concerning those records.

Depending on your institution, you may need to work with the collections team to plan for collections records, or you may be in charge of evaluating all forms of records. Good documentation of the collection is vital for insurance claims and for any conservation steps following damage. How detailed the documentation should be depends on the collection and on identified priorities. In the event that the administration department is responsible for collections records, refer to chapter 7 for more information.

Step 2

Review other documentation

All administrative records need to be evaluated as part of the preparedness process. What documents must staff have in hand during the response and recovery process? These documents should be stored in a safe room for easy access in the event of an emergency. What documents must be stored safely but do not necessarily have to be readily available?

Your documentation analysis should include the following:

- payroll
- financial records
- taxation records
- legal records
- incorporation records
- contracts
- personnel files
- list of donors
- emergency fund records, including signing authorities
- valuations

Work with the buildings and maintenance team and the safety and security team to assess adequate documentation of the physical plant. These teams should have the following:

- maps that include emergency exits, evacuation routes, and the location of emergency shelters, supplies, first-aid materials, utility shut-off valves, keys and prioritized assets
- instruction sheets for emergency equipment and for turning off utilities
- a list of hazardous materials stored on the premises
- files containing plans of utility systems, mechanical systems, fire detection/suppression systems, and architectural blueprints ("as-built" plans are invaluable)

Step 3

Review computer backup procedures

Where are the computer data being stored? On the hard drive? On the disks or external drives of individual staff? In a power failure, how would you retrieve information? As businesses throughout the world know, backing up information is essential when using computers. Often overlooked in the process are the following:

- Is there a systemwide backup? Having no systemwide backup means a large amount of decentralized data, which makes it difficult to evacuate complete operational data. How often should you back up the entire system? The answer depends on how much information is input daily, hourly, or weekly.
- Are there copies or backups of the application programs? Without these, you may be unable to access the backed-up data. Copies could be kept off-site and in the safe room with other duplicate records. How often are these copies updated?
- Who checks to ensure that information is being backed up properly and regularly and that it is recoverable? How often is this done? (The Seattle Art Museum does this every week.)
- Who is authorized to remove backup tapes and disks during an emergency? Some of the information on the tapes may be sensitive, such as financial records. You may want to designate one individual for this responsibility, or several individuals, depending on the size of the institution and on the sensitivity of informaton.
- Are passwords required to obtain certain computer data? Where is the list of passwords stored, and who has access to it?
- Are surge protectors replaced and updated every three or four years?

Task 2

Anticipate financial and legal concerns

Do not ignore financial planning. A natural disaster may create a financial one. If possible, build up reserves in every budget. Disruption of business in subsequent months—and years—can cause major financial damage.[3]

— Carl L. Nelson
Protecting the Past from Natural Disasters

Your team must work with the EPC to identify potential financial and liability issues related to emergency preparedness and response. Among the questions you will need to answer are the following:

- What liabilities does the institution have for volunteers who are accepted into the cleanup process?
- What liability is faced in moving the collection off-site?
- What is the institution's liability for anyone hurt on-site during an emergency response?
- What contracts need to be put into place in advance for external consultants, contractors, and other vendors or agencies?
- How much money should be set aside to deal with an emergency?
- In the event of a regionwide disaster, are sources of funds available in another city or region?
- Are grants available for funding preemergency studies if the institution has a high potential for major damage from a natural disaster?
- Are recovery operations for cultural institutions included in the mandate of local, state, or national funding organizations?
- Have charge accounts been set up with local suppliers? Credit cards may not be usable during a large-scale emergency; you may have to operate in a "cash-only" economy.

Task 3

Review insurance coverage and procedures

Insurance coverages are designed to help restore your assets and operation when, in spite of physical prevention and protection measures, a disaster strikes. Placing property insurance coverage is, in fact, an essential part of your fiduciary responsibility to care for and preserve your institution's building and collection.[4]

— Gail E. McGiffin
"Sharing the Risks"

In reviewing and evaluating insurance coverage, work with members from the collections and the buildings and maintenance teams. Many institutions insure the structure but do not adequately insure the contents. Consult with the insurance company or agent regarding the following:

- risk assessment
- asset identification
- protection priorities
- up-to-date collections valuations and loss-of-value evaluations
- preparedness and preventive measures

- response and recovery procedures and costs
- contingency planning
- emergency plan review
- practice drills
- required damage documentation
- claim preparation, including required details

Know what the policy covers. Find out whether the policy does and/or should include the following:

- loan exhibits
- objects in the building that are awaiting setup or ship-out
- purchase or rental of prevention and/or response equipment, supplies, and resources, such as portable generators, temporary relocation costs, and cleanup services
- costs of contracting professional conservation services and/or purchasing conservation equipment and supplies
- costs to conserve objects to the claim condition only
- replacement value, where applicable
- liability for staff, board officers, and visitors
- ambulance and medical services for uninsured visitors
- valuable documents, computer data, workers' compensation
- business income insurance

A special "rider" is usually required for equipment and data. This rider will assume that data are backed up frequently and that systems are operational at an alternative site. Therefore, policies usually will not cover the reconstruction of lost data. The policy should cover drying, cleaning, and reconditioning of equipment. A "functional replacement" section is important in order to purchase newer equipment that performs the same functions and more. Computer riders usually cover a limited time, sometimes only a few months.[5]

Determine also what documents and procedures are required for filing a claim. Keep copies of insurance claims with emergency supplies both on and off the premises, along with photographic equipment and film for documentation during and after an emergency. Coordinate this with all teams. The documentation should provide evidence for an insurance claim, including the following:

- proof that the institution did all it could to prevent, or at least mitigate, the effects of the disaster
- proof that the established response and recovery procedures were followed
- fast and accurate indication of the condition and loss of value, in dollar terms, of the building and the collections following the emergency

Further information on insurance issues can be found in Smith,[6] McGiffin,[7] and Kahn.[8]

Questions to Consider

- **Does insurance adequately cover the hazards identified in the risk assessment from the EPC?**
- **Are inventories and appraisals for collections and structures up to date?**
- **Are deductibles still appropriate?**
- **How often will the policy be reviewed and updated? Who will do it?**
- **Is there a building mortgage? If so, how does that affect insurance coverage and/or claims?**
- **What are the procedures for assessing damage (i.e., does an agent have to see a damaged object before it is moved)?**
- **Does the policy cover cleaning, recovery, and reconstruction of the area if the institution is located in a rented building or has rented storage space?**
- **If property is jointly owned, or owned by a government agency, which organization pays for damage and loss?**
- **Has the institution's probable maximum loss been discussed with the insurance provider? Is the probable maximum loss regularly reevaluated?**

Task 4

Evaluate equipment/data safety and needs

What administrative equipment is on hand now? Typewriters? Computers? File drawers? How are they and the data they contain protected against the risks and hazards that have been identified? A few small expenditures could be all that is needed to protect costly equipment and records that could take months to re-create. For example, expensive computers should be bolted down if the institution is in an earthquake-prone area. There are inexpensive ways of securing drawers, shelves, and cabinets. Fireproof cabinets can provide extra protection for sensitive documents.

If the computer data are more important than the computers themselves—which is usually the case—your priority may be to invest in an effective automatic backup program before bolting down the computers. If the institution's records are not yet computerized, it may be time to do so. In any case, you will have to establish the highest priority of need, given the particular risks associated with the location of the institution and any budgetary restrictions. To help protect records, here are some items you may wish to have on hand:

- fire extinguishers
- fireproof file cabinets
- power-surge protectors (replace every three or four years)
- latches on cabinets

You may also wish to consult the buildings and maintenance team about fire detection and suppression systems for offices, as well as emergency generators and fuel specifically for the running of computers.

Questions to Consider

- **Have you determined what equipment and supplies are likely to be needed?**
- **What sources are nearby to replace damaged or inaccessible materials? Where is the "shopping list"? Who can purchase the materials?**
- **Is there any planned alternate on-site and/or off-site storage for noncollections objects, such as furniture, fixtures, and equipment?**
- **What equipment, materials, and documents are needed to keep administrative functions operative in the event of a relocation?**

Task 5

Invite local agencies and individuals to participate

Do not make the mistake of overlooking local or regional services and resources. Consider inviting any or all of the following professionals to make presentations to your team. Coordinate these efforts with the EPC so that other teams, and perhaps all staff members, might benefit.

- computer experts
- retired or current staff of institutions with emergency responsibilities
- business office management experts
- insurance agents

It is also helpful to solicit input and advice from colleagues at institutions around the world. The purpose, however, should be to research what they did correctly and incorrectly during emergencies, not to simply copy their plans.

Task 6

Recommend records-related protective measures

Protective measures are steps taken to eliminate hazards (as in fire prevention efforts) or to reduce the effects of threats to records and documents (as in daily backup of computer data). You and your team must make recommendations to the EPC for both types of protection.

Protection is a long process—one that never ends. From time to time, remind team members that it is a priority. You also will need to remind your administration colleagues of their commitment to emergency preparedness as you lobby for funding for good paper records, computer upgrades, or photographic records and duplication.

In setting priorities, you must decide whether the assets and/or data are worth protecting and/or evacuating in comparison with the collections.

Protecting the collections and buildings has greater priority in most cases, but there are exceptions. For example, the records and observations associated with specimens in a natural history museum may be more valuable than the easily replaceable specimens. "You have to decide what is potentially replaceable if you have to make that terrible choice," emphasizes Jerry Podany, head of antiquities conservation at the J. Paul Getty Museum.

The priorities for protection that you set will influence the budget for addressing these problems. Some protection efforts may cost next to nothing, such as photocopying paper files and storing the duplicates off-site. Others have higher price tags. The preparedness budget may be well served by protecting data in advance so that in an emergency, efforts can remain fully focused on other areas, such as collections. Bear in mind that it is easier to request funding from the community for specific projects than for the amorphous goal of achieving emergency preparedness.

Protective measures you may wish to consider include the following:

- Establish regulations confining smoking to a specific, designated area outside the premises.
- Store original records in fireproof cabinets.
- Duplicate file cards if there is only one copy.
- Work with the buildings and maintenance department to install a fire detection and suppression system in records storage areas.
- Back up computer files and systems daily.
- Ensure that computers and other office equipment are kept in well-ventilated areas and that cords and wiring are intact (i.e., not frayed).
- Unplug all office equipment during thunderstorms or if such a storm is approaching.
- Use high-quality surge protectors and change them every four years.
- Store heavy books, supplies, and related items on lower shelves; do not store anything on top of shelves or cabinets or place shelves over computers, typewriters, and other office equipment. Secure shelves to walls.
- Keep an updated medical information data sheet on all staff (who agree to volunteer the information). Include a list of emergency contacts, preferred doctors and hospitals, and medical insurance companies and account numbers for each staff member. List next of kin or out-of-state contact names and telephone numbers.
- Prohibit or limit the storage or use of documents and office equipment near plate glass windows or doors, particularly if the institution is in a tornado, hurricane, windstorm, or seismic zone.

Work with the safety and security, collections, and buildings and maintenance teams to keep duplicates of all important documents in a secure place off-site, within twenty-four hours of accessibility, and keep one set of the documents in the safe room, or in the departmental safe rooms, as appropriate. These documents should include the following:

- emergency cash, checks, credit cards, and contact information for a 24-hour bank
- acquisition and registration records
- insurance records
- financial records
- asset documentation and inventories
- ownership, rental, or lease records
- policy documents
- inventory lists
- labels for boxes and writing equipment
- computer application programs
- personnel records
- name labels for volunteers
- records of grants, donations, and museum shop sales
- library and archive inventories
- laptop computer with an adapter for using a car cigarette lighter as a power source
- membership records (for an emergency appeal, if necessary)

Records from other departments should include the following:

- acquisition and registration records
- complete, updated records of collection loans
- conservation treatment and condition reports
- hazardous materials lists
- architectural and mechanical system plans and appropriate contacts
- plans of electronic security and fire detection and suppression systems

Suggested Exercise

With your team, brainstorm what to do in the following scenario: Weather forecasters say a storm is headed in your institution's direction, accompanied by strong winds and heavy rainfall. This is the latest in a monthlong series of such storms. The storm is expected to hit tomorrow night. What is the role of the administration and records staff during preparations for the storm? Who will check and/or stock supplies, photo equipment, and insurance paperwork? Who will move sensitive equipment to the middle of the room? Who will perform the computer backup? What else should be considered?

Preparing Report 2: Outline of Response Procedures and Techniques

In Report 2, you will establish an administration and records response team and recommend administration and records-related procedures and techniques for responding to any type of emergency. The report gives instructions for ensuring the safety of staff and data. Include in the report lists of items, such as emergency supplies and equipment available on-site as well as off-site, and job descriptions for response team members.

As in all other aspects of emergency preparedness, advance planning is the key to minimizing confusion, unnecessary delays, and frustration. It also can result in significant money savings by ensuring prompt resumption of revenue-generating museum or institution activities, as well as the most efficient use of financial and staff resources in order to recover all normal operations. The following tasks, undertaken *before* an emergency event, will help you craft the administration and records portion of the response plan in a simple, detailed, and flexible way:

Task 1: Identify potential temporary operational headquarters.

Task 2: Develop the administration and records response team.

Task 3: Develop recovery procedures.

Task 4: Create lists of staff and resource contact information.

Task 5: Create relevant fact sheets and maps.

Task 6: Stock emergency supplies and equipment.

Task 7: Establish routines to keep the plan viable.

Task 8: Identify and implement appropriate training.

In preparing the report, you and your team will have to address a number of important issues. Some will be general to all the team reports, whereas others will be issues specific to administration and records. The questions below address some of these issues and may prompt you to identify others.

Questions to Consider

- **Who will be in charge of keeping your part of the plan current? (People change jobs, telephone numbers change, new equipment is purchased and old equipment is discarded, companies go out of business, and agency responsibilities change.)**
- **To whom does your team report during an emergency?**
- **What will be the financial effect on the museum of a long-term disruption of services? A short-term disruption?**
- **If the institution is small, can you form an "emergency-preparedness cooperative" with other small cultural institutions? As a group, can you acquire funding to research disaster plans and/or form a central library for disaster preparedness information? Can you talk to local emergency authorities as a unified group? Can you assist one another in other ways?**
- **Who will handle personnel issues, such as workers' compensation claims, disability, and payroll? Do you have the forms and know the procedures?**
- **Who has access to immediate emergency funds and authorization for emergency expenditures?**
- **Who will coordinate with emergency organizations such as the Federal Emergency Management Agency (FEMA), and with the insurance company?**
- **Who will coordinate volunteers during and after an emergency?**

Task 1

Identify potential temporary operational headquarters

During an emergency, there must be a central base of operations, or emergency command center, from which the response and recovery teams can operate following an evacuation. The location of this command post is likely to be different in anticipation of a hurricane than in response to an earthquake. In some cases, it may be the security office. In others, it could be a command post set up on or near the premises.

Work with the emergency response coordinator (ERC) and leaders of the other departmental teams to identify criteria for the emergency command center. Once established, the command post should be staffed by the ERC and the leaders of the departmental response teams.

The safety and security team may be given the responsibility for setting up the command post. Your role in regard to administrative issues for the post, and your input into the decision on where to establish temporary quarters to house operations, is invaluable. When selecting a data recovery center, consider the threats identified in your team's vulnerability assessment. If flood is a potential hazard, the center must be located on the highest point in the surrounding area.

Rapid recovery is the first priority for the administration and records team. Personnel must be accounted for and assisted, if necessary. The need for information will be great. Donors and lenders will want to know the status of their works of art and artifacts. Collections holdings may have to be moved, and it is imperative to know their current whereabouts; movement and rehousing information must be kept under full intellectual control. The insurance process must be launched. Other agencies, such as federal assistance programs, will want documentation. To function as a data recovery center and operations headquarters, the command center must

- contain at least one computer with enough power and memory to access the data and applications, if applicable;
- have access to sufficient power supply to run computers and other equipment (note: adapters are available for a car's cigarette lighter);
- be secure so as to control access to data and records;
- have a copy of the card file or accession books;
- be physically safe for those working there; and
- have adequate sanitation facilities, as well as emergency water and food supplies.

Task 2

Develop the administration and records response team

Step 1

Compile a list of needed actions

The role of the administration and records response team will vary depending on the institution and the emergency. Following are some actions for which your team may be responsible:

- Establish a base of operations that can accommodate the anticipated worker pool, and announce its location to staff.

- Provide immediate access to emergency funds and establish a contingency plan for financing recovery operations and for paying staff.
- Quickly contact trustees, board of directors, large donors, and the like—with permission from the director or the ERC—and inform them of the emergency, ideally before they hear of it on the news.
- Coordinate claims and restoration work with insurance agents, federal emergency agencies, registrars, and conservators as quickly as possible. This may require hours of detective work in the files. (Note: Accompany all insurance agents, contractors, and simliar personnel on their tour of the site. Take detailed notes of all conversations for future reference.)
- Attempt to recover data as quickly as possible.
- Evacuate records (e.g., computer disks, Rolodex files, etc.), if time permits, in the order of priority established in the emergency plan.
- Remain with evacuated records until the appropriate person can receive them.
- Recruit and screen volunteer workers.
- Create work schedules; keep staff employed part-time if they cannot be employed full-time due to the emergency situation.
- Consider purchasing or arranging for quick rental of an emergency generator for vital equipment (photocopier, computer, etc.).

Step 2

Develop response team job descriptions

Developing job descriptions should be familiar to members of your team, at least those who handle personnel files and perform human resources duties. Because of this, your team should coordinate the writing of job descriptions for each of the four departmental response teams.

Designate responsibilities by position title rather than by individual, so that if the person who is the primary designate for the role is unavailable, the person next in the line of succession will assume the responsibilities. You may want to assign response team leaders in the areas of personnel, software, and physical records. Match similar duties (e.g., leadership duties, assistance duties, and physical duties) so that one person is not handling totally different tasks. Each position on a team should have a job description.

The number of alternates—or backup positions—that you assign depends on how important certain skills are to the position. For example, if it is crucial to have a person with computer experience directing the administration and records response team, numerous alternates should be listed. Committing the responsibilities of each person to paper helps to define roles and familiarizes each person with his or her role and that of colleagues.

Be sure to build flexibility into the plan. Experts say that the goal in establishing a response team is to create generic positions that anyone can

fill in an emergency. In other words, staff members should not get tied to a specific position.

The response team job description for the human resources manager in appendix K is from the Seattle Art Museum's *Emergency Planning Handbook*.[9] Note that in addition to simple and clear responsibilities, the description lists who should fill the position, and the line of succession if the designated person is unavailable. The description also states to whom this team member reports, and provides a checklist of actions expected of the position. In short, nearly anyone could fill the position if necessary.

Task 3

Develop recovery procedures

Recovery measures occur after an event has happened. They are designed to enable the museum—and its collection—to return to normalcy in an orderly, phased, reasoned and methodical fashion. Recovery measures begin when the disaster situation has stabilized and professionals have evaluated the damage and suggested further, long-term actions. Recovery can be a long process, taking years in some cases.[10]

— John E. Hunter
Supervisory staff curator
National Park Service, U.S. Department of the Interior

Step 1

Consider damage assessment issues

Working with the three other departmental preparedness teams, you and your team will build damage assessment procedures into the response plan. The institution's controller, risk manager, and general counsel should be involved in the planning process. Use their expertise to anticipate legal and financial issues or potential obstacles likely to arise in the aftermath of a large-scale emergency.

Your team should develop checklists for recovery procedures. Documentation of physical damage is critical not only for salvage and conservation of historic buildings but also for insurance purposes. Determine what role the administration and records response team will play in the documentation process.

Documentation equipment, such as a camera or video camera, should be safely stored and easily accessible, along with in-house damage assessment and object report forms and insurance claim forms. If visual documentation equipment is unavailable, do the documenting in writing. Prepared checklists can make written documentation more effective.

In the United States and other countries, federal and national funding is available when a museum is affected by a natural emergency. *Documentation of damage, along with photographs of objects before they were damaged, is required.* In the United States, additional funding for temporary relocation of objects, equipment purchase, and so forth, may be available through the Institute of Museum and Library Services and the National Endowment for the Humanities in Washington, D.C.

Step 2

Determine recovery procedures

You and your team should work with the three other teams to identify recovery procedures that move the museum from a state of emergency to the state of normal operations. In the aftermath of an emergency, these recovery procedures can be used as a guide in developing a recovery plan.

Administration and records-related recovery procedures may include the following:

- Help determine specific recovery needs and goals.
- Determine what resources are needed.
- Help prepare a written recovery plan.
- Organize resources, including recovery teams and outside experts.
- Secure funding.
- Gather emergency equipment and supplies.
- Maintain staff morale by setting a date for reopening the institution, creating work schedules, and allowing time off for staff members who have had extensive damage to their homes.
- Work with the other departmental teams to review and coordinate claims and restoration work.
- Maintain the public's goodwill by issuing news releases on the situation, and preparing a list of needs and making it available to interested organizations and members of the public.
- Reward efforts of staff, volunteers, and board members.

Step 3

Address issues of mental and physical well-being

> *Employees, volunteers, and others may experience secondary injuries—emotional injuries—following a disaster.*[11]
>
> — The Getty Center
> "Emergency Planning Handbook"

The Getty Center's "Emergency Planning Handbook" provides information on six stages of reaction that staff may experience after an emergency:

1. Impact of the event (at the time of the event)
2. Shock (24–48 hours after the event)
3. Suggestibility (1–3 days after the event)
4. Euphoria (1–2 weeks after the event, during the initial response phase)
5. Ambivalence (when the critical response phase passes)
6. Reintegration (2–9 months after the event; routine returns, the environment is stable)

These stages are spread over a period from immediate impact to reintegration to a normal routine. The handbook recommends that follow-up support be provided to help staff deal with the impact. Support can be in the form of counseling, confidential support groups, a debriefing for all staff within forty-eight hours after an emergency, reorganization of work schedules as necessary, and reestablishment of normal operations as soon as possible.

The psychological impact of emergencies and disasters should be addressed in training exercises as well. Set aside time after a full drill or a real emergency for staff members to talk about their experiences. Drills can become total mayhem and will inevitably agitate and worry some employees. In addition to holding roundtable debriefings, consider setting up a suggestion box so that the more reticent staff members can share their feelings, comments, and observations. A debriefing should also be held after a drill. Ask participants how they are feeling. If they are doing the drill well, they are going to be almost able to smell the smoke, and will probably be anxious.

During drills and during recovery efforts in a real emergency, be sure to schedule regular breaks, as well as to provide food, a place to eat and rest, and bathroom facilities. Learn more about stress and how to manage its effects. Decision making is difficult, and tensions and tempers may be running high. A sense of humor can go a long way.

Step 4

Require frank after-action reports

Every encounter with a disaster or an emergency is an opportunity for learning. After-action reports detail actions taken and results observed, providing a useful teaching tool. It is important first to emphasize and praise what went right, then to examine problems encountered or mistakes made. Do not allow these reports to be after-the-fact justifications and defenses of what the response team did; rather, they should be a candid assessment of what went on, problems and all.

Indicate to team members your desire to learn from mistakes, not to punish people for them. Encourage an atmosphere of honest self-assessment, starting with yourself. What could you have done differently? What would have worked better? How could you improve your response next time? What did you learn that could be applied to the next emergency?

Task 4

Create lists of staff and resource contact information

You will need to furnish the emergency preparedness committee with the names of all your staff members, along with their work and home telephone numbers and addresses. This information will enable you to notify them if they happen to be at home during an emergency. Also, make a list of any special skills staff members have; for example, is any employee a nurse, a search-and-rescue team member, or an ambulance driver?

Put together lists of names, telephone and fax numbers, and street and e-mail addresses of individuals and organizations with whom your team might have contact during or after an emergency. Update the lists regularly. Coordinate your lists with those of the other teams. Contact each of these organizations or individuals now, apprising them of their projected role in your plan.

Here are some resources you may wish to include:

- local (federal) emergency relief office
- insurance company
- electronic data recovery services
- lawyer/legal adviser
- copying facility
- volunteer organizations
- banks
- board of directors, trustees, significant donors, collection lenders
- computer rental and repair firms

Questions to Consider

- **Where is your resource list located?**
- **Who is keeping it current? How often is it updated?**
- **Where is the off-premises copy located?**
- **Who will be responsible for contacting people identified for assistance and advice?**
- **Have you established credit lines with appropriate companies, and are they sufficient for the institution's potential needs? Will this plan work if the whole community is affected by the emergency?**

Task 5

Create relevant fact sheets and maps

Develop fact sheets and maps in collaboration with the other preparedness teams. Your department, however, will be responsible for overseeing the duplication of these documents; identifying a safe location for them on the premises, as well as off-site; and depositing all documents in these locations. In the process, you will need to balance a risk to the security of vital and confidential documents against having them available and readily accessible in an emergency. Fact sheets from your department should include the following:

- operating instructions for computer equipment
- hazardous materials in the area, including copier fluid
- data recovery location

Task 6

Stock emergency supplies and equipment

Store emergency supplies in two locations—internal for quick use, and external in case of evacuation or if the building is not occupied when the emergency occurs. Coordinate this stocking process with the EPC and other preparedness teams. Large quantities of expensive items or perishable materials need not be stockpiled. Instead, identify suppliers and make arrangements for emergency delivery, as necessary.

Emergency supplies should include the following:

- hard hats and emergency clothing (for team members who are assigned to enter a damaged building)
- workers' compensation, insurance claim, and accident report forms
- purchase orders
- emergency credit card/cash/checkbooks (vendors may not be able to verify credit card charges if telephone lines are not working)
- payroll lists
- photographic equipment (camera, lenses, accessories, flash, high-speed film) and video camera, if possible
- batteries for camera, flash, flashlights, and other equipment (replaced as necessary)
- extension cords (some of which are equipped with ground circuit interrupters)
- boxes for packing and moving records and equipment, along with sealing and strapping tape
- essential office equipment and supplies, such as a manual typewriter, pocket calculator, pencil sharpener, clipboards, stapler, rulers, pens, pencils, and waterproof notebooks
- essential stationery to ensure capability of minimal administrative operations
- a number of small carrying bags or backpacks for moving the mini-office around in what might be a damaged building
- plastic sheeting to cover exposed objects and office equipment

For further ideas on equipment and supplies that should be stocked, refer to appendix E.

Suggested Exercise

During a meeting of your team members, conduct a mental exercise. Ask them to close their eyes; then give them an emergency scenario. For example, a fire breaks out in a workroom, or a local disaster strikes. Ask a volunteer to describe, step by step, how he or she would respond to the emergency. Ask detailed questions: What do you do first? Who has a flashlight? Whom do you call? What telephone do you use? Where are the keys? Where are the necessary supplies, maps, and lists? Encourage others to make recommendations.

Questions to Consider

- **Have you provided sufficient protection for the supplies so they will be available and undamaged in the event of an emergency?**
- **Have you communicated clearly to all staff where these supplies are located, have you labeled them clearly and have you posted maps showing where the supplies are located?**
- **What are nearby sources to replace damaged or inaccessible materials? Where is the "shopping list"? Who can purchase the materials?**
- **Is someone responsible for being sure supply levels are maintained?**[13]

Task 7

Establish routines to keep the plan viable

The following are a few examples of possible daily and periodic checklist activities for the administration and records team. Compare your list with those of the other preparedness teams to learn about other important activities you may have overlooked.

Daily checklist activities:

- Computer system and files are backed up daily.
- Copier and other equipment are turned off, unplugged, or put on power-saving mode, as appropriate.
- The safe and confidential file cabinets are locked and the keys deposited in the designated location.
- Doors and windows in the administration areas are locked.
- Waste disposal containers are emptied.

Periodic checklist activities:

- Check emergency supplies, and reorder if necessary.
- Have fire extinguishers in the administration areas inspected, and recharged if necessary.
- Coordinate with other departments the duplication and off-site storage of new documents.
- Verify and update information on the contact list of emergency resources.
- Update the duty roster with changes in staff and administrative operations.

Task 8

Identify and implement appropriate training

During a large-scale disaster, your team may be in charge of handling the community volunteers, docents, trustees, members of the military or National Guard, and other emergency workers available to help. Training some of these individuals in advance can provide an additional layer of support in an emergency. It also can aid in community awareness and in fund-raising for prevention efforts. Use untrained volunteers on work on tasks that do not involve collections.

Aside from handling volunteers and performing evacuation procedures, you may also need to train staff to retrieve backup computer tapes and/or disks and to perform other activities specific to administration and records. Coordinate training activities with the EPC, as many of these activities will be relevant to other departmental staff and teams.

Some basic training methods are listed below. You may choose to employ several, either independently or simultaneously. Please see chapter 5 for more information on training.

- group discussions
- simulations/role-playing
- supplementary handouts
- video tapes
- review sessions
- self-assessment exercises
- hands-on workshops
- presentations by colleagues with firsthand experience in the types of scenarios that might be expected at your institution

Questions to Consider

Does everyone on your staff know

- **how to direct firefighters and others through local streets;**
- **how to get to the roof of the buildings and direct others to the roof;**
- **where emergency alarms and fire extinguishers are;**
- **the location, both off-site and on-site, of emergency supplies and equipment;**
- **where supply kits for packaging the office equipment are, and if staff members have access to that location;**
- **the routes to internal or external shelters;**
- **who is in charge and to whom to report; and**
- **how to evacuate computer files (do these need to be evacuated if backup files are maintained)?**

While your team may be asked to document response and recovery efforts for the entire institution during execution of the emergency plan, do not forget to keep good written and photographic records of your team activities, as well. Hold regular team meetings as soon as possible to communicate how work is progressing and how to make response and recovery efforts easier and less stressful.

After normal operations have resumed following a disaster, subject the emergency plan and the performance of all team members to a candid critique as soon as possible. Encourage feedback from all persons involved through written reports, interviews, and group meetings.

When possible, following a major emergency, schedule time off for staff members, particularly if any of them have sustained injuries, or damage or loss to their homes. Contact counselors if necessary, and assure staff that such counseling is entirely confidential.

Notes

1. John E. Hunter, "Preparing a Museum Disaster Plan," in *Southeastern Museums Conference, 1991 Disaster Preparedness Seminar Proceedings*, ed. Martha E. Battle and Pamela Meister (Baton Rouge, La.: Southeastern Museums Conference, 1991), 64.
2. Joe Shuster, telephone interview with Sharon Jones, 1993.
3. Carl L. Nelson, *Protecting the Past from Natural Disasters* (Washington, D.C.: Preservation Press, National Trust for Historic Preservation, 1991), 78.
4. Gail E. McGiffin, "Sharing the Risks," *History News* 48, no. 1 (1993): 16–19. Used by permission of the American Association for State and Local History.
5. Adapted from Miriam Kahn, *Disaster Response and Prevention for Computers and Data* (Columbus, Ohio: MBK Consulting, 1994), 43. Used by permission.
6. Scott E. Smith, "Insurance Planning," *History News* 48, no. 1 (1993): 18, 37.
7. McGiffin, "Sharing the Risks."
8. Kahn, *Disaster Response for Computers*, 41–44.
9. Seattle Art Museum, *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994).
10. Hunter, "Preparing a Museum Disaster Plan," 58.
11. Getty Center, "Emergency Planning Handbook" (J. Paul Getty Trust, Los Angeles, 1997, photocopy), Fact Sheets section.
12. Excerpted from Gail Joice, "Questions to Ask Yourself When Preparing a Disaster Plan" (AAM Risk Management and Insurance Committee, American Association of Museums, Washington, D.C., April 1994, typescript), with additional information provided by the advisers in the development of this book.

Chapter Summary

This chapter

- outlined the role of the administration and records preparedness team in the emergency preparedness process;
- described information required in the two reports to be delivered to the emergency planning committee;
- provided guidance in assessing the vulnerability and assets of the administration and records program;
- helped define the roles and responsibilities of the administration and records response team; and
- identified tasks to guide you through the process of designing a response plan that is simple, detailed, and flexible.

In review, the emergency preparedness process is a long-term commitment on the part of the institution's staff, teams, and committees. You cannot, and should not, expect changes to happen quickly or easily. Interdisciplinary teamwork is difficult and requires a change in attitude that may be slow in coming at first. The payoff—in peace of mind, in the safety of staff and visitors, and in the protection of objects and irreplaceable records—will be great.

Appendixes

Appendix A Emergency Teams at the Barbados Museum

EMERGENCY TEAMS

Our response to emergency situations is centred around a number of teams. These teams are outlined below :

1. CORE TEAMS (6)

One Curator
One person from the Administrative or Security Staff
One person from Technical Staff
At least two volunteers

When it appears that a threat to the security of the Museum is likely, and when there is adequate time to do so, the role of the CORE TEAMS is to secure the institution's COLLECTIONS and RECORDS. Each member of staff is assigned to a CORE TEAM.

2. DISASTER TEAM

Director
Curators
Executive Officer
Librarian
Special Events Manager
Structural Engineer
Architect

After an emergency, the DISASTER TEAM will enter the buildings and ascertain the physical condition of the buildings and the collections. The DISASTER TEAM determines if and how the RECOVERY TEAM is to be activated.

3. RECOVERY TEAM

Director
Curators
Executive Officer
Librarian
Marketing Officer
Administration Staff
Technical Staff

After an emergency, the RECOVERY TEAM will survey the facility and the collections and begin to take the appropriate steps. The person in charge will decide when the other staff members can enter the building to assist in the RECOVERY PROGRAMME.

A Emergency teams list from the Barbados Museum and Historical Society's "Emergency Plan" (Barbados Museum and Historical Society, St. Michael, 1994, photocopy). Used by permission.

Appendix B Tables of Contents from Emergency Planning Manuals

GETTY CENTER EMERGENCY PLANNING HANDBOOK
TABLE OF CONTENTS

B.1 Table of contents from the Getty Center's "Emergency Planning Handbook" (J. Paul Getty Trust, Los Angeles, 1997, photocopy).

TABLE OF CONTENTS

B.2 Table of contents from the Seattle Art Museum's *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994). Used by permission.

B.2 *continued*

TABLE OF CONTENTS

B.3 Table of contents from the Barbados Museum and Historical Society's "Emergency Plan" (Barbados Museum and Historical Society, St. Michael, 1994, photocopy). Used by permission.

SEVERE WEATHER PREPARATION MANUAL

TABLE OF CONTENTS

DEPARTMENTS AND DIVISIONS

B.4 Table of contents from the Mystic Seaport Museum's "Severe Weather Preparation Manual" (Mystic Seaport Museum, Mystic, Conn., 1994, photocopy). Used by permission.

B.4 *continued*

Appendix C Evacuation Procedures for Staff and the Public

Employee Evacuation Procedures

Security x7000

When you hear the evacuation alarm, see the strobe lights, hear the voice evacuation system, or are told to evacuate the building by your Floor Warden:

1. **Immediately shut down all hazardous operations:** seal chemicals, turn off equipment, etc. **Shut all doors and windows behind you** if safe to do so, but do not lock.
2. **Leave quickly by the nearest safe exit.**
3. Go directly to the nearest safe designated Evacuation Assembly Area (see map, back cover of this booklet).

Additional Information:

4. Your Floor Warden will ensure that occupants evacuate the area. All employees should **help each other leave as instructed**. As you exit, quickly check nearby restrooms, copier rooms, closets, etc. for other staff.
5. Accompany and help any people with disabilities, visitors and any co-worker who appears to need calm direction or assistance. Stairwell, Elevator, and Assistance monitors will facilitate your evacuation.
6. Take your car keys, purse, and/or wallet if safe to do so. Do not attempt to take large or heavy objects.
7. Proceed as quickly as possible, but in an orderly manner. Do not push or shove. Hold handrails when you are walking on stairs. Remove high heels to avoid tripping. Move to the right if you encounter emergency personnel.
8. Once out of the building, **move away from the structure**. Do not block streets or driveways.
9. Group with other members of your department and remain in the assembly area. Assist your department head in completing a head count of your department and be prepared to relay the information to Security or others.

If instructed to leave the premises:

1. Ridesharers: contact your rideshare partners immediately. All others needing rides, see your rideshare coordinator for assistance.
2. **Drive carefully**. Extra caution is required anytime you are excited, worried, or distracted by an emergency situation. Watch for pedestrians, obstructions and emergency vehicles.
3. Where roads intersect, merge alternately with vehicles from the other road. Expect traffic back-ups. Be patient. Follow traffic directions from Security or other safety officials. If normal exits are blocked, you will be directed to an alternate route.
4. If you are in doubt about whether to report back to work, call the Getty hotline at (800) 899-5506. This number will have recorded messages on the status of closings and reopenings at all Getty locations.

C.1 Employee evacuation procedures from the Getty Center's "Emergency Planning Handbook" (J. Paul Getty Trust, Los Angeles, 1997, photocopy), Staff Emergency Procedures section.

EVACUATION OF STAFF AND VISITORS

If it becomes necessary to evacuate the Museum, only the person in charge (Director or her appointee) will give the order to carry out evacuation procedures. The following action will be taken by Museum staff, adhering to a "people first" policy.

1. The person in charge will call the appropriate police, security or emergency officials.

2. The person in charge will notify all staff using the telephone intercom system, and keep groups together if possible, (i.e. reception, administration, Cafe staff working at the same location).

3. Designate staff at each exit to monitor walkie-talkies and to maintain contact.

4. The Museum staff will:

    a. Oversee the evacuation of Museum visitors through front and rear exits. Evacuation should be conducted calmly. Staff should assist visitors to follow appropriate evacuation route.

    b. Lock away any valuables if time permits.

    c. Turn off any appliances, lights and extinguish all smoking materials.

    d. Gather all personal belongings, if time permits.

    e. Gather all important museum files, e.g. computer disks, rolodex files, etc.

    f. Lock doors to offices and work areas. In the event of fire, office doors should be closed but left **unlocked**.

    g. Assign staff to check all areas to ensure complete evacuation.

5. **EVACUATION PROCEDURES:**

    Evacuation through Front Exit:

Evacuation of staff and visitors through the front entrance to the designated area: Museum carpark near bus stop, will include all individuals located in the following areas:

-- Library
-- Shop
-- Reception

C.2 "Evacuation of Staff and Visitors" document from the Barbados Museum and Historical Society's "Emergency Plan" (Barbados Museum and Historical Society, St. Michael, 1994, photocopy). Used by permission.

-- Cafe
-- Security
-- Exhibition Galleries
-- Storage Areas
-- Lower Courtyard - Grounds

* Cafe staff will evacuate through the North Gate, circle the building and join group in Playing Area next to CXC carpark.
-- Security Guard will act as person in charge, and maintain radio contact with other members in the group.

Evacuation through Rear Exit:

Evacuation of staff and visitors through rear entrance to the designated area: CXC Carpark will include all individuals located in the following areas:

-- Administrative Building
-- Garrison House
-- Maintenance worksheds
-- Staff Hut
-- Associated Storage areas
-- Upper Courtyard areas

* Executive Officer will act as person in charge, and maintain radio contact with other group.

General:

a. Notify the person in charge when you have arrived safely at the designated area.

b. Check if everyone is in the designated area. Do not block traffic.

c. Await instructions from the person in charge. Do not leave meeting area unless otherwise instructed. Complete list of evacuees.

6. If fire or police officials require access to the storage areas, the person in charge will provide access or direction as necessary.

Appendix D Safety and Welfare Supervisor Job Description

SAFETY AND WELFARE SUPERVISOR

RESPONSIBILITIES: Responsible for general safety and welfare of all employees and visitors during emergency operations.

REPORTS TO: PROTECTIVE SERVICES MANAGER

LINE OF SUCCESSION

1. Security Supervisor
2. Assistant Chief of Security

ACTION CHECKLIST:

___ Quickly gathers information and develops initial strategy based on personnel available and the nature of the emergency.

___ Obtains the Safety and Welfare Supervisor's Emergency Supply Kit and a portable radio; obtains additional radios as available.

___ Assembles and directs a team of workers, primarily using Security Department personnel and others trained in first aid when possible. Coordinates with Security, Equipment and Transportation and Building Systems Supervisors.

LIFE SAFETY

___ Establishes and maintains first aid station(s).

___ Supervises evacuation of the sick and injured as possible.

___ Reports hospitalization needs of the injured to Protective Services Manager.

___ Conducts search and rescue operations.

___ Coordinates identification, removal and storage of the deceased. See attached Fact Sheet.

WELFARE

___ Establishes food and shelter station(s).

___ Provides special services as required for the care of unaccompanied children, the aged and the handicapped.

___ Arranges for sanitation and disposal of human waste. See attached Fact Sheet.

D Safety and welfare supervisor job description from the Seattle Art Museum's *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994). Used by permission.

___ Maintains ongoing inventory of all emergency supplies including food, water, first aid supplies, etc. See Chapter V (On-site Resources) and Chapter VI (Off-site Resources).

___ Coordinates equipment and supplies needs with Equipment and Transportation Supervisor.

___ Investigates all accidents, injuries or deaths related to the emergency and maintains accurate chronological records including confidential lists of the injured and dead, citing causes when known. Reports this information to Human Resources Manager.

___ Coordinates with Media Manager to facilitate outside communications with or concerning, staff and visitors.

___ Coordinates with Red Cross as appropriate.

OTHER

___ Arranges for chronological documentation of significant events, using an assistant is possible.

___ Regularly reports to Protective Services Manager on progress/problems.

___ Thoroughly briefs his/her replacement.

Fact Sheets: Safety and Welfare Supervisor

1. Portable Radios
2. Organizational Chart

Appendix E Emergency Response Supply Lists

GETTY CENTER EMERGENCY PLAN

Mobile/Portable First Aid Box

Contents

Knuckle bandages	5	Burn sheet	1
Fingertip bandages	5	4″ stretch gauze	2
2″ x 3″ adhesive pads	15	3″ stretch gauze	2
3/4″ x 3″ bandages	25	2″ stretch gauze	2
1″ x 3″ plastic bandages	25	Coban wrap bandages	3
1″ x 3″ woven bandages	25	Bloodstoppers	3
Betadine swabs	25	Kwick-Cold packs	3
Wound wipes	25	Comfort masks	3
Alcohol pads	50	PTP valve masks	1
Bacitracin	25	Emergency water	2
Towelettes	10	Trauma dressing	1
4-oz. eye wash	1	Micro shield	1
4-oz. hydrogen peroxide	1	Scissors	1
First aid spray	1	Large tweezers	1
Tongue depressors	12	Forceps with magnifier	1
6″ cotton-tipped applicators	10	Magnifying glass	1
3″ x 3″ gauze pads	10	Snake bite kit	1
4″ x 4″ gauze pads	10	Flashlight	1
2″ x 2″ gauze pads	10	Pairs vinyl gloves	10
Ammonia inhalants	10	Blood Borne Pathegon kit	1
Eye dressings	4	Large Kerlix roll	1
Nox-a-Sting	20	Pens	2
Triangular bandages	2	Pencil	1
Bandage compress	1	Emergency report forms	6
Rescue blankets	2	Body Fluids Protection kit	1

Swift 68-PM 20-7 Special Fill Trauma Kit - 5/9/96

E.1 List of contents for the mobile/portable first-aid box from the Getty Center's "Emergency Planning Handbook" (J. Paul Getty Trust, Los Angeles, 1997, photocopy), Fact Sheets section.

Emergency Response Cart

Contents:

1.	6 wheeled cart with folding platform and lockable cabinet	1
2.	Lock and key for cabinet, with break box	1
3.	Plastic rolls	2
4.	Spill kit	1
5.	Plastic bucket (in Spill kit)	1
6.	Plastic boot covers (in Spill kit)	3
7.	Coveralls (Tyvek) (L-1, XL-1, XXL-1) (in Spill kit)	3
8.	Rubber gloves (chemical resistant - pairs (in Spill kit)	1
9.	Rigid plastic containers with lid 29"x18"x15"	1
10.	Wet/Dry Vac (in container)	1
11.	Sponges - assorted (in container)	9
12.	Paper towels rolls/packets (in container)	1
13.	Cotton towel rags (in container)	6
14.	Clear eye goggles	1
15.	Dust masks	6
16.	Heavy duty Nitrile gloves (pairs)	12
17.	Leather gloves (pairs)	1
18.	Caution tape rolls	1
19.	Duct tape rolls	1
20.	Door wedges	2
21.	Hammer	1
22.	Scissors	1
23.	Pliers	1
24.	Cutter	1
25.	Quick Link	4
26.	Flash light (complete with batteries) and spare batteries	1
27.	Power pack light (complete with batteries)	1
28.	Emergency floor lamp 500 watt	1
29.	Spare bulb for floor lamp 500 watt	1
30.	Electric heavy duty power cable 100' on reel	1
31.	Electric heavy duty power cable 50' on reel	1
32.	Electric power strip	1
33.	Dust pan and brush	1
34.	Truckers rope 100'	1
35.	Floor prop-up signs "Closed/Caution"	2
36.	Signs for traffic cone (Do Not Enter and Caution - 1 each)	2
37.	Traffic cones 18"	2
38.	Crow bar (wrecking tool)	1
39.	Combination tool (spade/pick/ax/rake/mattock)	1
40.	Squeegee 18" curved with handle	1
41.	Small first aid kit	1
42.	Fire extinguisher	1
43.	Bungee cord fasteners	6

E.2 List of contents for the emergency response cart from the Getty Center's "Emergency Planning Handbook" (J. Paul Getty Trust, Los Angeles, 1997, photocopy), Fact Sheets section.

Cart's exterior contents:		Cabinet upper shelf:	
1. Plastic rolls	2	1. Clear eye goggles	1
2. Spill kit complete	1	2. Dust masks	6
Plastic bucket	1	3. Heavy duty Nitrile gloves	12
Plastic boot covers	3	4. Leather gloves (pairs)	1
Tyvek coveralls	4	5. Caution tape rolls	1
Rubber gloves (chem. resist)	1	6. Duct tape rolls	1
3. Plastic box container	1	7. Door wedges	2
Wet/Dry Vac	1	8. Hammer	1
Sponges, assorted	6	9. Scissors	1
Paper towels/rolls	2	10. Pliers	1
Cotton towel rags	6	11. Cutter	1
4. Floor sign - Caution/Do not enter	1	12. Quick Link	4
5. Traffic cones	2	13. Flash light with spare batteries	1
6. Cone signs - Caution/Do not enter	2	14. Power pack with battery	1
7. Crow bar/wrecking tool	1		
8. Combination tool set, complete	1		
9. Squeegee, rubber, 18" curved	1		
10. Squeegee sponge, 9"	1		
11. First Aid kit	1		
12. Fire extinguisher	1		
13. Bungee cord fasteners	6		
14. Electrical power distribution strip	1		

Cabinet Middle Shelf:		Cabinet lower shelf:	
1. Trucker's rope 100'	1	1. Emergency floor lamp 500 watt	1
2. Dust pan and brush	1	2. Electric power cable 100'	2
3. Parts for combination tool set	1	3. Electric power cable 50'	1
		4. Spare bulb 500 watt	1

E.2 *continued*

FACT SHEET: DISASTER SUPPLY BOX (DOWNTOWN)

The disaster supply box is located in the first aid room on the first floor adjacent to the freight elevator, along with emergency medical equipment, including "First Response" kit, Infection Control kit, and inflatable splints.

Contents:

1. One roll plastic sheeting, 12'x100', 4ml
2. One 10-lb. sledge hammer
3. One 31-lb. drill hammer
4. One 36" goose neck bar
5. One 24" goose neck bar
6. One 14" utility bar
7. Four adjustable wrenches (10", 15", 10", 8")
8. One 10" T&G pliers
9. One 9" lineman's pliers
10. One side cutting dikes
11. One needle-nose pliers
12. Two four-in-one screw drivers
13. One slotted screw driver
14. One Phillips type screw driver
15. Two utility knives
16. One hacksaw
17. One putty knife
18. Six pair leather palm gloves
19. Six two-cell (D) flashlights
20. Six sets of D-cell batteries
21. One roll caution tape
22. Two rolls duct tape
23. One roll electrical tape
24. One roll 2" masking tape
25. Twelve pair cotton gloves
26. One box (100) latex exam gloves
27. Six clipboards with pads
28. One box each permanent markers, ballpoint pens
29. One box (20) dust/mist respirators
30. One box (200) sterile alcohol prep pads
31. One coil 3/8"x50' rope
32. One coil fiber twine
33. One box (25) 33x43 bio hazard bags
34. One bag diaper cloth
35. Four boxes (120 each) pre-moistened anti-bacterial towelettes

E.3 Fact sheet for a disaster supply box from the Seattle Art Museum's *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994). Used with permission.

Appendix F Collection Safety Manager Job Description

COLLECTION SAFETY MANAGER

RESPONSIBILITIES: Directs all aspects of emergency operations involving the museum art collections; assures that aggressive action is taken for the salvage, preservation, and restoration of the collections. Is responsible for general supervision of technical areas involving art work, including conservation assessment and treatment, transportation and packing activities, storage arrangement, and documentation of movement and treatment.

REPORTS TO: EMERGENCY PLAN COORDINATOR

LINE OF SUCCESSION

1. Registrar
2. Associate Registrar
3. Associate Registrar
4. Exhibition Designer
5. Curator of unaffected department:

ACTION CHECKLIST:

___ Quickly gathers information and develops initial strategy based on personnel available and the nature of the emergency.

___ Immediately appoints Conservation, Art Registration, and Art Relocation Supervisors, using attached work sheet and Emergency Plan Organizational Chart.

___ Receives the Collections Manager's Emergency Supply Kit and a portable radio from Protective Services.

___ Establishes a base of operations and clearly announces its location.

___ Receives initial damage assessment reports from all Conservation, Art Registration and Art Relocation Supervisors and establishes priorities with them.

___ Arranges for chronological documentation of significant events, using an assistant if possible.

___ Receives recommendations from Conservation Supervisor(s) and Art Relocation Manager for on-site storage locations. Designates safe room(s) for emergency art storage.

___ Approves off-site art storage location(s) upon recommendations of Art Registration and Art Relocation Supervisors.

F Collection safety manager job description from the Seattle Art Museum's *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994). Used by permission.

___ Coordinates the use of arriving staff through Human Resources Manager, ensuring that all needs are met by priority.

___ Establishes priority lists for all further salvage efforts.

___ Continually reevaluates state of emergency and priorities.

___ Thoroughly briefs his/her replacement.

Fact Sheets: Collections Manager

1. Portable Radios
2. Assignment Work sheet
3. Organizational Chart

Appendix G Evacuation Procedures for Collections

EVACUATION OF COLLECTIONS

1. In the event of an emergency, Museum collections will be removed from the premises only under the following circumstances:

   a. When the safe evacuation of staff and visitors is completed and staff are not endangered.

   b. If conditions within the Museum are an immediate threat to the collections. Such conditions might occur in events such as fires and floods.

   c. If conditions outside of the Museum are more favourable to the preservation of the collections than existing conditions within the building.

   d. If removal of the collections can be carried out without undue hindrance to fire and police officials.

2. Only the Director or person in charge will give the order to remove the collections from the building. All available staff will assist with the evacuation and the protection of the collections.

   a. Removal of the designated objects will be supervised by the curatorial staff. Objects in immediate danger and those on the **Collections** Priorities list will be removed first.

   b. If conditions allow, objects should be properly wrapped and packed in cartons prior to moving. Use padded carts to move objects if possible.

   c. The curators will maintain a current list of priority objects and their locations. It is the responsibility of each curator to maintain and update the list of priority objects. This list will be located in the Emergency Plan File in the Administrator's office. A copy will also be filed with our Insurance Company.

   d. The Curatorial staff will advise on the removal of :
      - valuable items on loan to the Museum
      - objects in temporary exhibitions.

3. Removal of the collections will be accomplished in the following manner:

   a. Collections will be placed in Museum and staff vehicles. A list will be maintained by the Curators of collections that have been evacuated and their location.

   b. Works evacuated will be transported to locations previously designated for storage.

4. If the museum facility cannot be secured after the emergency, temporary storage will be found in another structure until permanent arrangements can be made. The accession numbers and location of collections items going into storage will be recorded by the curators.

G "Evacuation of Collections" document from the Barbados Museum and Historical Society's "Emergency Plan" (Barbados Museum and Historical Society, St. Michael, 1994, photocopy), 28–29. Used by permission.

Appendix H Fact Sheet List

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- Evacuation Procedures: Security Department
- Evacuation Horns
- Fire Response: Evacuation Team

2 - GENERAL SECURITY
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- Command Post: Mobile
- Off-Shirt Emergency Procedures: Security Department
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- Art Relocation Form
- Art Condition/Damage Report
- Scientific Equipment Protection

5 - BUILDING ASSESSMENT
- Post-Earthquake Assessment of Buildings

6 - SPECIFIC EMERGENCIES
- Bomb Search Procedures
- Bombs: Identifying Mail or Suspicious Packages
- Brush Fire: Security
- Brush Fire: Emergency Response Executive
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H Index of fact sheets from the Getty Center's "Emergency Planning Handbook" (J. Paul Getty Trust, Los Angeles, 1997, photocopy), Fact Sheets section.

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11 - TRAM AND HELIPAD

Emergency Operation
Evacuation of Occupants
"Blue Light" Station Operation
Firefighter Helipad Bridge

H *continued*

Appendix I Procedures for Handling Art in an Emergency

PROTECTION OF ART IN EMERGENCY SITUATIONS

The purpose of this section is to inform all staff of the basic procedures to be followed in the protection of art during an emergency, **in the absence of any staff who are specially trained to handle works of art**. The fundamental principle to be observed is that all art should be moved only by trained personnel at all times, even in an emergency, unless the art is in imminent danger of loss, damage, or destruction.

Most art objects require special expertise for safe handling.. Therefore, in the absence of a clear and present danger to the artwork, it is preferable to await direction and assistance from the appropriate registration, conservation, preparation, or curatorial staff.

Before moving any art object:

1. Select the nearest safe location.

2. Determine how the art object can be most safely handled.

3. Do not drag or push a work of art.

4. Do not try to lift more than you can handle. Get help.

5. If the object is broken already and cannot be left where it is without risk of further damage, collect and save all the pieces.

Emergency Handling of Paintings

Special tools and equipment are required for moving paintings which are on display. Displayed paintings cannot be lifted from the walls and moved to another location. If the damage has already occurred and the situation is now under control, paintings should, unless absolutely necessary, be left until professional help arrives.

If displayed paintings must be moved to prevent further damage, the following procedures will apply.

1. Never insert finger between the canvas and the stretcher bars.

2. Do not touch the front or back of a painting. Move the painting by holding the frame or stretcher bars.

3. Never allow any object to touch or rest against the front or back of the painting, however lightly.

I.1 "Protection of Art in Emergency Situations" from the Seattle Art Museum's *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994). Used by permission.

4. Do not carry a painting by the top of the frame. Carry it with one hand under the frame and one hand to the side, or with a hand on either side of the frame.

5. Hold the frame where it is strongest, never by the fragile gesso decoration.

6. If there appears to be loose paint present, carry the painting flat, painted surface up, to prevent flakes from falling off.

7. Paintings should never be stacked. However, when rapid response is necessary and safe space is limited, paintings may need be leaned together against a wall. If this is the case, place the paintings face-to-face and back-to-back, ensuring that the frames overlap and that nothing is in direct contact with the painting surfaces, front or back. Watch for screw-eyes and wires on the backs of frames that could damage the paintings.

Emergency Handling of Small Objects, Vases, Sculpture

Particular care must be observed in the handling of small, fragile are objects. Before moving, determine a safe, out-of-the-way location where they cannot be bumped or hit.

1. Do not lift or carry a fragile object by its handles, spout, rim, finials, or by any projecting part.

2. Use one hand to support the bottom of the object and the other hand and arm (like a gentle hug) to support the sides.

3. Never lift a sculpture by a projecting member such as a hand, arm, foot or head.

4. Ensure that the earthquake safety wire, if any, has been removed before attempting to move a small object.

Emergency Handling of Furniture

Furniture is particularly vulnerable to damage by water or excessive humidity. If the exposure to water or other danger has already occurred and no further danger is present, the furniture should not be moved until conservators or registrars advise.

1. Do not drag or push furniture.

2. Do not lift furniture by arms, legs, back, finials, or other projecting parts.

3. If possible, remove marble tops before moving furniture.

I.1 *continued*

Emergency Handling of Drawings and Manuscripts

Drawings and prints are particularly vulnerable to damage by water or excessive humidity. The cases and cabinets in the storage area provide protection from water and smoke.

In case of ceiling leaks in drawings and manuscripts storage:

1. Cover solander shelves and print drawers with plastic sheeting.

2. Do not open drawing or print cabinets or drawers.

If damage occurs within storage area, the drawings and prints should be moved only if leaving them in the cases and cabinets will cause further damage. When moving them:

1. Do not open cabinets unless situation is fully under control.

2. Do not open solander boxes. Under no circumstances should objects be removed from their storage boxes.

3. Always carry boxed prints with two hands. Carry box horizontally at all times. Do not tilt box or tuck box under arm.

4. Do not move objects abruptly.

5. Do not stack large unframed works on paper.

6. For oversize prints lacking storage boxes, wrap with protective paper or plastic before moving (time permitting), being careful not to snag metal attachments on the binding.

7. Objects should be moved to a safe, dry, protected area, as prolonged exposure to excess humidity will cause further damage.

If damage occurs in galleries:

1. Leave objects in display cases until registrar arrives.

2. Do not attempt to open cabinets or move cases.

I.1 *continued*

HANDLING COLLECTIONS IN EMERGENCIES

A. PAINTINGS

1. Use common sense.
2. Use extreme care in handling paintings.
3. Always carry only one painting at a time.
4. Always have two or more people lift or move any painting which one person finds even slightly difficult to manage alone.
5. Always carry framed paintings by the frame, with two hands on opposite sides of the painting. Never hold a frame by the ornate deceptions at the corners or centres of the sides.
6. Always hold the face of a painting toward your body when you are carrying it.
7. Never touch the surface of a painting with your fingers.
8. Never hold an unframed painting with your knuckles pressing into the reverse of the canvas.
9. Always be very careful of where you put your hands when holding a frame. Gold leaf is very fragile and can easily be knocked off by the pressure of your hands.
10. Walk smoothly when carrying a painting so that you don't jar or vibrate the canvas and paint layers.
11. Know where you plan to put the painting and where you are going before you lift it. Do not move it unnecessarily.
12. Put paintings where they will not be accidentally knocked into, or be in the way of emergency crews.
13. Always rest paintings vertically against a wall and not flat on the floor, unless there is no other alternative. Use non-skid pads. If none are available, place paintings at a safe angle, from which they will neither fall over nor slide flat. If possible, rest single frame paintings face against the wall.
14. Paintings should not be stacked vertically against each other. If necessary, stack them back-to-back and front-to-front. Always make sure that any wire, screws or protruding pieces on the reverse of frames cannot cause damage. If possible, use cardboard/soft foam pieces to separate stacked paintings.

B. OBJECTS

1. Use common sense.
2. Use extreme care in handling collections.
3. Move every object by itself.
4. Do not lift by handles, spouts, arms, rims, tails, heads or projecting parts. Use two hands and lift from the base or secure area only. Separate jars and lids whenever

I.2 "Handling Collections in Emergencies" from the Barbados Museum and Historical Society's "Emergency Plan" (Barbados Museum and Historical Society, St. Michael, 1994, photocopy), Appendix 1. Used by permission.

possible and transport individually. Carry with one hand at bottom and one hand at side or near bottom for support and balance.
5. Transfer small objects to boxes or trays, wrapping in tissue paper.
6. Use a cart if possible to move more than one object at a time. Use protective pads, wedges, or blankets to stabilize objects on cards and prevent them from abrading each other. Be aware of projecting parts - they may require extra padding and extra precaution.
7. Lift, do not drag.
8. Know how a piece is to be handled before lifting; know where you are going and where you plan to put it.
9. Always be careful of where hands are placed as paint, gold leaf, feathers, etc., are easily knocked off.
10. Collect and preserve fragments broken off of any of the collections. Save all pieces.
11. Place objects where there is no chance of their getting accidentally knocked into or being in the way of the emergency crews.
12. No piece should touch another.
13. Do not allow parts of objects to protrude beyond the edge of shelving, where they might be bumped into.
14. When moving objects to new areas, store heavier objects on lower shelves to lower the centre of gravity and minimize danger of a rack toppling over.
15. Place padding underneath if you must place an object on a palette, on the floor.

C. PAPER DOCUMENTS

E.g. books, unframed photographs, parchment document and files.

1. Use common sense.
2. Use extreme care in handling paper documents. Wear gloves if possible.
3. Lay unmounted sheets between clean sheets of cardboard.
4. Unframed graphics should never be placed against each other. If this is necessary, always place tissue between each piece.
5. Objects other than flat graphics should be maintained in approximately the same horizontal or vertical position in which they were exhibited.
6. Know where you are going and where you plan to place the work of art before you lift it.
7. Walk smoothly when carrying a print or drawing so that you don't jar or vibrate it.
8. Put works of art where there is no chance of their being accidentally knocked into or in the way of emergency crews.
9. Support books well. Do not hold by the spine only. Carry in container if possible.

Appendix J Building Systems Supervisor Job Description

BUILDING SYSTEMS SUPERVISOR

RESPONSIBILITIES: Maintains maximum functioning of all physical plant systems. Reduces or eliminates risk to people, buildings, and objects through repair work and anticipation of structural, electrical, mechanical, and other problems.

REPORTS TO: PROTECTIVE SERVICES MANAGER

LINE OF SUCCESSION:

1. Maintenance Superintendent
2. Maintenance Engineer
3. Chief of Security

ACTION CHECKLIST:

___ Quickly gathers information and develops initial strategy based on personnel available and the nature of the emergency.

___ Receives the Building Systems Supervisor's Emergency Supply Kit and a portable radio from Protective Services.

___ Assembles and directs a team of workers, primarily from Engineering Department, to immediately conduct initial structural, systems and utility damage assessments. Reports location(s) and severity of problems to Protective Services Manager.

___ Provides emergency power. Coordinates use of emergency generator(s) with Equipment and Transportation Supervisor.

___ Directs necessary emergency shutdown procedures for heating, ventilation, air conditioning, water, and electrical systems.

___ Shuts off water heaters and gas supply lines as necessary.

___ Restores and maintains essential services.

___ Repairs emergency equipment by priority.

___ Inspects and clearly marks hazards and hazardous areas.

___ Constructs emergency facilities as needed, in coordination with Safety and Welfare Supervisor.

___ Provides mechanical maintenance as necessary.

J Building systems supervisor job description from the Seattle Art Museum's *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994). Used by permission.

___ Maintains and distributes maps and diagrams of systems and equipment locations.

___ Secures contractor support to supplement staff in the repair of damaged utilities, buildings, fire protection systems, equipment, etc.

___ Develops checklist for structural safety in museum, such as:
Fire sprinkler system intact and functional
Natural gas supply lines intact and functional
Walls structurally sound
Roof intact and structurally sound.

OTHER

___ Arranges for chronological documentation of significant events, using an assistant is possible.

___ Regularly reports to Protective Services Manager on progress/problems.

___ Thoroughly briefs his/her replacement.

Fact Sheets: Building Systems Supervisor

1. Portable Radios
2. Organizational Chart

Appendix K Human Resources Manager Job Description

HUMAN RESOURCES MANAGER

RESPONSIBILITIES: Under the direction of the Emergency Plan Coordinator, is responsible for the efficient deployment and re-deployment of all personnel on Museum property. This included utilizing essential personnel and establishing a safe area for non-essential personnel outside of the emergency area(s). Must make rapid decision based on existing conditions and available staff.

REPORTS TO: EMERGENCY PLAN COORDINATOR

LINE OF SUCCESSION:

1. Assistant Chief of Security
2. Assistant to the Director

ACTION CHECKLIST:

___ Quickly gathers information and develops initial strategy based on personnel available and the nature of the emergency.

___ Receives the Human Resources Manager's Emergency Supply Kit and a portable radio from Protective Services.

___ Establishes a base of operations which can accommodate the anticipated manpower pool, and clearly announces its location.

___ Assembles all available personnel and deploys them individually or in teams to report to other managers or supervisors as needed, based on primary skills.

___ Under the direction of the Emergency Plan Coordinator, establishes and continually revises the relative manpower priorities of various teams.

___ Maintains a status board of all current deployment of on-site personnel.

___ Arranges for chronological documentation of significant events, using an assistant if possible.

___ Clearly instructs all personnel to return to the personnel pool for reassignment upon completion of task and release by the requesting manager or supervisor.

___ Identifies whether any personnel are missing and believed trapped in hazardous areas, and informs Protective Services Manager.

K Human resources manager job description from the Seattle Art Museum's *Emergency Planning Handbook*, rev. ed. (Seattle: Seattle Art Museum, 1994). Used by permission.

___ Coordinates the use of arriving staff with Collections, Protective Services and Media Managers, ensuring that all needs are met by priority.

___ Surveys available visitors, volunteers and docents for special skills (medical, etc.). NOTE: Use only in non-security-risk areas/roles. Screen carefully. Coordinate with Docent and/or Volunteer Coordinator when possible.

___ Recruits outside medical personnel as required; coordinates with Protective Services Manager. See Section V, Off-Site Resources, for listing of local hospitals.

___ Regularly reports to Emergency Plan Coordinator on progress/problems.

___ Establishes records of known missing, injured or dead persons, and coordinates information with Media Manager.

___ Thoroughly briefs his/her replacement.

Fact Sheets: Human Resources Manager

1. Portable Radios
2. Organizational Charts

Directory of Selected Organizations

Conservation and Related Professional Organizations

American Association for State and Local History (AASLH)
1717 Church Street
Nashville, TN 37203-2991, USA
Tel: (615) 320-3203
Fax: (615) 327-9013
E-mail: membership@aaslh.org
Web: www.aaslh.org

American Association of Museums (AAM)
1575 Eye Street NW, Suite 400
Washington, DC 20005, USA
Tel: (202) 289-1818
Fax: (202) 289-6578
Web: www.aam-us.org

American Institute for Conservation of Historic and Artistic Works (AIC)
1717 K Street NW, Suite 200
Washington, DC 20006, USA
Tel: (202) 452-9545
Fax: (202) 452-9328
E-mail: info@aic-faic.org
Web: http://aic.stanford.edu

American Institute of Architects (AIA)
1735 New York Avenue, NW
Washington, DC 20006, USA
Tel: (800) 242-3837
Fax: (202) 626-7547
E-mail: infocentral@aia.org
Web: www.aia.org

The Association for Preservation Technology International
4513 Lincoln Avenue, Suite 213
Lisle, IL 60532-1290, USA
Tel: (630) 968-6400
Fax: (888) 723-4242
E-mail: information@apti.org
Web: www.apti.org

Association of Art Museum Directors (AAMD)
Administrative Office:
41 E. 65th Street
New York, NY 10021, USA
Tel: (212) 249-4423
Fax: (212) 535-5039
Web: www.aamd.org
or:
Government Affairs Office:
1319 F Street, NW, Suite 201
Washington, DC 20004, USA
Tel: (202) 638-4520
Fax: (202) 638-4528
E-mail: aamdgov@aol.com
Web: www.aamd.org

Australian Institute for the Conservation of Cultural Material (AICCM)
E-mail: aiccm@mateng.asn.au
Web: www.aiccm.org.au

Canadian Association for Conservation (CAC)
P.O. Box 87028
332 Bank Street
Ottawa, Ontario K2P 1X0, CANADA
Tel: (613) 231-3977
Fax: (613) 231-4406
Web: www.cac-accr.ca

Canadian Conservation Institute (CCI)
1030 Innes Road
Ottawa, Ontario K1A 0M5, CANADA
Tel: (613) 998-3721
Fax: (613) 998-4721
Web: www.cci-icc.gc.ca

Canadian Museums Association (CMA)
280 Metcalfe Street., Suite 400
Ottawa, Ontario K2P 1R7, CANADA
Tel: (613) 567-0099
Fax: (613) 233-5438
E-mail: info@museums.ca
Web: www.museums.ca

Conseil de l'Europe/Council of Europe
67075 Strasbourg Cedex, FRANCE
Tel: (33 3) 88 41 20 00
Web: www.coe.int

Heritage Preservation
1012 14th Street, NW Suite 1200
Washington, DC 20005, USA
Tel: (202) 233-0800
Fax: (202) 233-0807
Web: www.heritagepreservation.org

Institute of Museum and Library Services (IMLS)
1100 Pennsylvania Avenue, NW
Washington, DC 20506, USA
Tel: (202) 606-8537
Fax: (202) 606-8591
E-mail: imlsinfo@imls.fed.us
Web: www.imls.fed.us

The Institute of Paper Conservation
Bridge House, Waterside
Upton-Upon-Severn
WR8 0HG, UNITED KINGDOM
Tel: (44 1684) 591150
Fax: (44 1684) 592380
E-mail: information@ipc.org.uk
Web: www.ipc.org.uk

ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property)
via San Michele, 13
00153 Rome, ITALY
Tel: (39 06) 58 55 31
Fax: (39 06) 58 55 33 49
E-mail: iccrom@iccrom.org
Web: www.iccrom.org

International Council of Museums (ICOM)
Maison de l'UNESCO
1, rue Miollis
75732 Paris cedex 15, FRANCE
Tel: (33 1) 47 34 05 00
Fax: (33 1) 43 06 78 62
E-mail: secretariat@icom.museum
Web: www.icom.museum

International Council of Museums Committee for Conservation (ICOM-CC)
c/o ICCROM
via San Michele, 13
00153 Rome, ITALY
Tel: (39 06) 58 55 34 10
Fax: (39 06) 58 55 33 49
E-mail: secretariat@icom-cc.org
Web: www.icom-cc.org

International Council of Museums
International Committee for
Documentation (ICOM-CIDOC)
Web: www.cidoc.icom.org

International Council of Museums
International Committee for
Museum Security (ICOM-ICMS)
Web: http://user.chollian.net/~pll/public_html/icms

International Council on Archives (ICA)
60 rue des Francs-Bourgeois
75003 Paris, FRANCE
Tel: (33 1) 40 27 63 49; 33 (0)1 40 27 63 06
Fax : (33 1) 42 72 20 65
E-mail: ica@ica.org
Web: www.ica.org

International Council on
Museums and Sites (ICOMOS)
49-51, rue de la Fédération
75015 Paris, FRANCE
Tel: (33 1) 45 67 67 70
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International Council on
Museums and Sites
International Committee
of the Blue Shield (ICOMOS-ICBS)
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Museums Association of the Caribbean
(MAC)
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Fax: (66 2) 524 5350
E-mail: adpc@adpc.net
Web: www.adpc.net

Caribbean Disaster Emergency Response Agency (CDERA)
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Tel: (246) 425-0386
Fax: (246) 425-8854
E-mail: cdera@caribsurf.com
Web: www.cdera.org

Emergency Preparedness Canada
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Federal Emergency Management Agency (FEMA)
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Web: www.fpaa.com.au

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Page numbers in italics refer to illustrations.

About the Compilers

Valerie Dorge is a project specialist at the Getty Conservation Institute, providing conservation, training, and project-management expertise to GCI projects. As a training coordinator from 1992 to 1997, she organized a variety of courses for the institute nationally and internationally. She was an adviser for the AIC Task Force on Disaster Mitigation, Response, and Recovery, which developed a draft workshop curriculum on this topic. Previously, she was a conservator at the Canadian Conservation Institute (CCI), where her responsibilities also included participation in the institute's emergency response team activities. She has organized a number of conference programs, was coeditor of *Painted Wood: History and Conservation* (Getty Conservation Institute, 1998), and has been published in a number of professional journals. Dorge is a professional associate of the American Institute for Conservation of Historic and Artistic Works (AIC), and a Fellow of the International Institute for Conservation of Historic and Artistic Works (IIC).

Sharon L. Jones is a journalist-turned-technologist with more than sixteen years' experience in newspapers, educational products, and hypermedia publishing. She has received two master's degrees, one in journalism from Columbia University and one in educational technology from San Diego State University. She began her writing career with the Associated Press, the wire service, and spent the majority of her journalism career with the *San Diego Union-Tribune*. She has worked as a general assignment reporter, where she covered a variety of emergencies (bombings, earthquakes, brush fires, arson fires) and learned firsthand about the devastation they can bring. She has also worked as an education writer and has developed training materials for IBM Corporation and other companies.

"I feel stressed in having to set priorities for what should be saved in an emergency situation. My entire career is built on caring for art, and to think that I might have to leave something behind is very difficult. These are hard choices."

—Gail Joice, Seattle Art Museum

Building an Emergency Plan **assists administrators and security managers of cultural institutions develop plans to protect not only their collections but also their employees and visitors in the event of natural disasters and other destructive events, such as fire or vandalism. This practical guide**

- **provides clear, step-by-step guidelines for designing an emergency plan tailored to the institution and its collections;**
- **features sections for the director, an emergency preparedness committee, and the leaders of the departmental teams that outline their respective responsibilities in the emergency preparedness and response planning process;**
- **suggests an organizational structure that assigns responsibilities for preparedness and response activities;**
- **identifies many activities that require minimal financial commitment from the institution;**
- **includes emergency preparedness materials from other institutions—such as evacuation procedures, supply and equipment lists, and action checklists;**
- **uses questions and exercises to help institutions identify and address their specific needs.**

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