OEP Guide

Supplement 1: Emergency Situations

November, 2007

U.S. Immigration and Customs Enforcement

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CIVIL DISOBEDIENCE OR DISORDER

General Information

Sometimes, particularly with controversial issues, groups of people opposed to the aims of a demonstration may themselves launch a counter-demonstration to oppose the demonstrators and present their view. Clashes between demonstrators and counter-demonstrators may turn violent.

Civil disobedience encompasses the active – but nonviolent – refusal to obey certain laws or commands of a government as a means of expressing a viewpoint (either positive or negative) regarding a public issue, especially relating to a perceived grievance or social injustice. Most planned, peaceful actions are legal. Public displays of disapproval of a group toward a person or cause can include up to several hundred people, usually occur on a street or public gathering place, and can be stationary in a rally, sit-in, or workplace occupation or moving in a march or picket line.

Civil disorder is a broad term that is used to describe one or more forms of disturbance caused by a group of people where there is no advance notice. These disturbances can include violence and are, in most cases, illegal. The most recognized type of civil disorder is rioting. Rioting is a chaotic and unlawful disturbance of the public peace by three or more persons assembled together and acting with a common intent, usually in reaction to a perceived grievance or out of dissent (e.g., poor working or living conditions, conflicts between races or religions, the outcome of a sporting event). Often, riots involve vandalism and the destruction of private and public property.

All facilities are subject to the disruption that can result from civil disobedience or disorder. Public utilities such as water, fuel, and electricity may be temporarily unavailable, and civil disorder can affect the public infrastructure for communication.

The following sections provide information on how to prepare before an act of civil disobedience or disorder occurs, actions to take during an act of civil disobedience or disorder, and suggestions on how to safely recover after such an incident has occurred.

Prepare – Before Civil Disobedience or Disorder

The following are suggested actions to take before civil disobedience or disorder occurs:

- When a known and publicly announced protest, demonstration, or similar event is planned, the location of the event, cause, reason, and potential protest routes for such an occurrence should be assessed to determine the potential threat to the facility.
- Occupants of the facility should be instructed as to the types of civil disobedience or disorder expected and how to minimize the potential for confrontation with demonstrators. Occupants should continue with their business and stay away from windows and doors to the extent possible during demonstrations.
- In the event that a heightened alert status is put into effect, occupants should be fully informed of what is anticipated and what is expected of them.

Respond – During Civil Disobedience or Disorder

For peaceful events, with ample advance warning, there should be little disruption to the facility. As such, occupants should:

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- Report to work unless otherwise notified
- Avoid all contact with demonstrators
- Continue work normally
- Keep lobby and corridors clear
- Stay away from windows and doors.

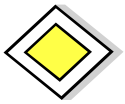
However, even planned events can become violent. A facility-wide lockdown could occur when the civil disturbances or disorders would directly threaten any building and when unauthorized and/or unlawful entry into the facility is imminent. Lockdown may include:

- Public address announcement made to all occupants advising of the event such as:

  "May I have your attention please? Due to a civil disturbance outside the facility, Security and/or Property Management requests that all occupants remain inside the facility until the situation is under control. Thank you for your cooperation."

- Securing all perimeter doors, including tenant access points having both street and interior access into the facility
- Securing of all loading dock doors
- Powering off, or placing into "Riot Mode," all escalators and freight and passenger elevators
- Communications and interaction with law enforcement or designated emergency agency
- Preparation for secondary actions if needed.

Events may occur with no advance warning, and it these events that are more likely to result in civil disobedience or disorder. Any occupant noticing an inflammatory or controversial event that was unexpected should notify security.



Recover – After Civil Disobedience or Disorder

Once the act of civil disobedience or disorder has been cleared, the DO will determine if it is safe for occupants to exit the facility.

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General Information

Individuals who compromise, debilitate, or destroy the confidentiality, integrity, or availability of electronic data stored, processed, or transmitted by information technology systems are sometimes called hackers. Although this term is often associated with individuals operating from outside a facility, hackers may also be insiders such as current and former employees, contractors, and vendors who have – or at one time had – positions of trust and thereby access to the facility, its systems, and information.

Whether insiders or outsiders, hackers use knowledge acquired from legitimate computer operators, malicious software, and their own know-how to gain access to critical systems. If the attack is not identified immediately, a hacker could gain complete access to the system and leave portals open for future reentry.

Indicators of an attack on information technology systems can include:

- Multiple failed attempts to gain access to the system using different combinations of passwords (password dictionaries)
- Defaced portals and Websites
- Unidentified IP addresses trying to gain network access
- System taken offline or an unexpected increase in network activity during off-peak hours
- Foreign file types being stored on large data repository (for example, video files being saved on a server typically storing spreadsheets and word documents)
- Legitimate system users receiving unsolicited phone calls from help desk technicians who request the login and passwords
- Missing files, records, or line items.

The most up-to-date information on cyber and computer security threats, vulnerabilities, and protective measures can be obtained from:

National Institute of Standards and Technology Cyber Security Resource Center (CSRC)

http://csrc.nist.gov/

Department of Homeland Security Computer Emergency Readiness Team

http://www.uscert.gov/

Prevent, Protect, and Prepare – Before a Computer or Cyber Security Incident

Many organizations learn how to respond to security incidents only after suffering attacks. By this time, incidents often become much more costly than needed. Proper incident response should be an integral part of your overall security policy and risk mitigation strategy.

Agency planning groups should address ways to safeguard computer systems. There have been cases where employees have sabotaged computer equipment, computer systems, and computer records. Therefore, whenever a threat of sabotage is suspected, procedures should be initiated to prevent the person from having access to the facility's computer system.

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Some agencies, when terminating employees, bar them from the premises and eradicate their passwords to computer systems that are accessible from outside the premises. This type of access information is sometimes difficult to determine; often, it is not readily available in one central place. The agency planning group, as part of the response plan, should talk to the information/computer security officer or computer system administrators to determine the vulnerability of the computer networks and the procedures that need to be implemented to lock individuals out of these systems.

The following are suggested actions to minimize the number and severity of computer or cyber security incidents:

- Clearly establish and enforce all policies and procedures. Your policies and procedures should be thoroughly tested to ensure that they are practical and clear and provide the appropriate level of security.
- Gain management support for security policies and incident handling.
- Routinely assess vulnerabilities in your environment. Assessments should be done by a security specialist with the appropriate clearance to perform these actions
- Routinely check all computer systems and network devices to ensure that they have all of the latest patches installed.
- Establish security-training programs for both IT staff and end users.
- Post security banners that remind users of their responsibilities and restrictions, along with a warning of potential prosecution for violation.
- Develop, implement, and enforce a policy requiring strong passwords.
- Routinely monitor and analyze network traffic and system performance.
- Routinely check all logs and logging mechanisms, including operating system event logs, application specific logs and intrusion detection system logs.
- Verify your back up and restore procedures.
- Assemble a Computer Security Incident Response Team (CSIRT) before an incident occurs to positively influence how incidents are handled. The CSIRT should contain computer security professionals responsible for coordinating a response to any incident.
- Define a cyber security incident response plan should include the following response and recovery actions:
    - Make an initial assessment.
    - Communicate the incident.
    - Contain the damage and minimize the risk.
    - Identify the type and severity of the compromise.
    - Protect evidence.
    - Notify external agencies if appropriate.
    - Recover systems.
    - Compile and organize incident documentation.
    - Assess incident damage and cost.
    - Review the response and update policies.

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To prevent facility ***data theft***, consider the following suggested actions:

- Conduct background security checks on employees and contractors, as appropriate.
- Limit occupants' access to only those areas and systems necessary for their business.
- Institute a clear desk policy so that sensitive information is put away at the end of the day.
- Document and explain procedures and policies for system and device use.
- Train occupants on policies, procedures, system use, and security.
- Implement secure storage for sensitive documentation.
- Institute secure disposal of confidential information.
- Implement effective access control measures for password management, user registration, and de-registration.
- Implement, review, and maintain a comprehensive audit system that provides historical data access records.
- Institute secure procedures for exchanging information.
- Encrypt sensitive and personal information stored on Websites.
- Alert security and human resources if someone has expressed interest in possible targets, including particular, identifiable targets.

To prevent ***unauthorized access*** to computer systems, networks, and associated information, consider the following suggested actions:

- Establish an information technology risk management program/IT security program within the Office of the Chief Information Officer.
- Conduct training regarding protecting password and basic IT security protocols.
- Install intrusion detection software, firewalls, and authentication software.
- Disable all portals that are not monitored or assigned to trustworthy users.
- Enable the software option to force all users to change passwords regularly. Never share passwords with anyone or write them down.
- Be aware of changes in the technology landscape and new threats that are discovered. Update virus protection software regularly, or when new virus alerts are announced.
- Never open or download files attached to an e-mail from an unknown, suspicious, or untrustworthy source, or if the subject line is questionable or unexpected.
- Exercise caution when downloading files from the Internet. Be certain that the source is a legitimate and reputable one. Verify that an anti-virus program checks the files on the download site. If uncertain, don't download the file at all or download the file to a floppy disk and test it with anti-virus software.
- Back up files on a regular basis.

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Respond – During a Computer or Cyber Security Incident

It is important to act quickly whenever there is reason to believe that an employee or ex-employee may commit an act of computer sabotage. It is standard practice to collect IDs, building passes, keys, and parking passes when employees leave their jobs. Often, however, no one thinks to block access to computer systems or networks. The following are suggested steps to take when you suspect a computer or cyber security incident has occurred:

- Immediately report any detected or suspicious incidents involving the security of computers or networks, including apparent attempts at unauthorized access. Reportable incidents can include suspicious computer- or network-related activity, internal or external to the facility. Include, for example:
    - Intrusions/unauthorized access
    - Modified files or unexpected new files
    - Unexpected disk accesses
    - Detection of classified material on unclassified computers
- Do not try to remove, modify, use, or copy any programs on the affected workstation;
- Immediately quarantine the affected workstation by not allowing anyone to use it;
- Disconnect the computer from the network (pull out the network cable), but do not power down the computer;
- Notify the facility or departmental cyber security point of contact, or system administrator, if available;
- Follow directions from authorized individuals assigned to help evaluate and recover from the incident.
- Do not discuss the incident with uninvolved personnel.

In responding to a computer or cyber security incident, ***authorized individuals should***:

- Make an initial assessment.
    - Take steps to determine whether you are dealing with an actual incident or a false positive.
    - Gain a general idea of the type and severity of attack. You should gather at least enough information to begin communicating it for further research and to begin containing the damage and minimizing the risk.
    - Record your actions thoroughly. These records will later be used for documenting the incident (whether actual or false).
- Communicate the incident to other authorized individuals to quickly identify who needs to be contacted and help to ensure that appropriate control and incident coordination can be maintained, while minimizing the extent of the damage.
- Contain the damage and minimize risks by taking the following actions:
    - Protect human life and people's safety. This should, of course, always be your first priority.

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- Protect classified and sensitive data. As part of your planning for incident response, you should clearly define which data is classified and which is sensitive. This will enable you to prioritize your responses in protecting the data.
- Protect other data, including proprietary, scientific, and managerial data. Other data in your environment might still be of great value. You should act to protect the most valuable data first before moving on to other, less useful, data.
- Protect hardware and software against attack. This includes protecting against loss or alteration of system files and physical damage to hardware. Damage to systems can result in costly downtime.
- Minimize disruption of computing resources (including processes). Although uptime is very important in most environments, keeping systems up during an attack might result in greater problems later on. For this reason, minimizing disruption of computing resources should generally be a relatively low priority.

Recover – After a Computer or Cyber Security Incident

The following are suggested steps to take after a computer or cyber security incident:

Determine how seriously systems have been compromised. To be able to recover effectively from an attack, you need to determine how seriously your systems have been compromised. This will determine how to further contain and minimize the risk, how to recover, how quickly and to whom you communicate the incident, and whether to seek legal redress. You should attempt to:

- Determine the nature of the attack (this might be different than the initial assessment suggests).
- Determine the attack point of origin.
- Determine the intent of the attack. Was the attack specifically directed at your organization to acquire specific information, or was it random?
- Identify the systems that have been compromised.
- Identify the files that have been accessed and determine the sensitivity of those files.

By performing these actions, you will be able to determine the appropriate responses for your environment. A good incident response plan will outline specific procedures to follow as you learn more about the attack. To help determine the severity of the compromise, you should:

- Contact other members of the response team to inform them of your findings have them verify your results, determine whether they are aware of related or other potential attack activity, and help identify whether the incident is a false positive. In some cases, what might appear to be a genuine incident on initial assessment will prove to be a false positive.
- Determine whether unauthorized hardware has been attached to the network or whether there are any signs of unauthorized access through the compromise of physical security controls.
- Examine key groups (domain administrators, administrators, and so on) for unauthorized entries.
- Search for security assessment or exploitation software. Cracking utilities are often found on compromised systems during evidence gathering.
- Look for unauthorized processes or applications currently running or set to run using the startup folders or registry entries.

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- Search for gaps in, or the absence of, system logs.
- Review intrusion detection system logs for signs of intrusion, which systems might have been affected, methods of attack, time and length of attack, and the overall extent of potential damage.
- Examine other log files for unusual connections; security audit failures; unusual security audit successes; failed logon attempts; attempts to log on to default accounts; activity during nonworking hours; file, directory, and share permission changes; and elevated or changed user permissions.
- Compare systems to previously conducted file/system integrity checks. This enables you to identify additions, deletions, modifications, and permission and control modifications to the file system and registry. You can save a lot of time when responding to incidents if you identify exactly what has been compromised and what areas need to be recovered.
- Search for sensitive data, such as credit card numbers and employee or customer data that might have been moved or hidden for future retrieval or modifications. You might also have to check systems for non-business data, illegal copies of software, and e-mail or other records that might assist in an investigation. If there is a possibility of violating privacy or other laws by searching on a system for investigative purposes, you should contact your legal department before you proceed.
- Match the performance of suspected systems against their baseline performance levels. This of course presupposes that baselines have been created and properly updated.
- When determining which systems have been compromised and how, you will generally be comparing your systems against a previously recorded baseline of the same system before it was compromised. Assuming that a recent system shadow copy is sufficient for comparison might put you in a difficult situation if the previous shadow copy comes from a system that has already been attacked.

Protect evidence. In many cases, if your environment has been deliberately attacked, you may want to take legal action against the perpetrators. In order to preserve this option, you should gather evidence that can be used against them, even if a decision is ultimately made not to pursue such action. It is extremely important to back up the compromised systems as soon as possible. Back up the systems prior to performing any actions that could affect data integrity on the original media.

Notify external agencies. After the incident has been contained and data preserved for potential prosecution, you should consider whether you need to start notifying appropriate external entities. All external disclosures should be coordinated with your Legal Representative. Potential agencies include local and national law enforcement, external security agencies, and virus experts. External agencies can provide technical assistance, offer faster resolution and provide information learned from similar incidents to help you fully recover from the incident and prevent it from occurring in the future.

Recover systems. How you recover your system will generally depend on the extent of the security breach. You will need to determine whether you can restore the existing system while leaving intact as much as possible, or if it is necessary to completely rebuild the system.

Restoring data presumes, of course, that you have clean backups made before the incident occurred. File integrity software can help pinpoint the first occurrence of damage. If the software alerts you to a changed file, then you know that the backup you made before the alert is a good one and should be preserved for use when rebuilding the compromised system.

An incident could potentially corrupt data for many months prior to discovery. It is, therefore, very important that as part of your incident response process, you determine the duration of the

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incident. In some cases, the latest or even several prior backups might not be long enough to get to a clean state, so you should regularly archive data backups in a secure off-site location.

Compile and organize incident evidence. Thoroughly document all processes when dealing with any incident. This should include a description of the breach and details of each action taken (who took the action, when they took it, and the reasoning behind it). Afterward, the documentation should be chronologically organized, checked for completeness, and signed and reviewed with management and legal representatives.

Review response and update policies. Once the documentation and recovery phases are complete, you should review the process thoroughly. Determine if steps were executed successfully and which mistakes were made. In almost all cases, you will find some processes that need to be modified so you can better handle future incidents.

ELEVATOR MALFUNCTION OR ENTRAPMENT

General Information

Elevator entrapment, or passengers being trapped and unable to exit, can be caused by a power outage or equipment malfunction. A typical passenger elevator will have an alarm button or switch that passengers can use to signal that they have been trapped in the elevator. Some elevators may also have one or more of the following features that enhance the security and safety of building occupants:

- Floor access control features to prevent unauthorized entry
- Communication connection to an external 24-hour emergency service through an elevator telephone or alarm
- Automatic recall to the designated floor in a fire emergency when an alarm has been activated. The designated floor is typically the main floor, however, when a fire occurs on the main floor, elevators will recall to an alternate floor.
- Fireman's key switch on the designated recall floor that places the elevator in a special operating mode designed to aid firefighters in rescuing occupants.

Safety measures to address occupants requiring special accommodations or assistance include:

- Braille and raised characters on elevator car and hall push buttons and controls
- Elevator car buttons and controls and hall buttons located at specified heights to accommodate occupants in wheelchairs
- Audible signals to provide information regarding car direction, car location, and door status
- Sufficiently long door opening and closing times that still preserve efficient elevator operation
- Door protection provided to minimize or eliminate the consequences of impact with an elevator passenger.

The Safety Code for Existing Elevators and Escalators (ASME A17.3) requires elevators to have an audible signaling device, operable from the emergency stop switch; a means of two-way conversation between the car and a readily accessible point outside the hoistway that is available to emergency personnel. If the audible signaling device or means of two-way communication are connected to the building power supply, they shall be provided with emergency power. If a building attendant is not continuously available, the elevator shall be provided with means for communicating with or signaling to a service, which is capable of taking appropriate action. The following sections provide information on how to prevent or prepare for an elevator malfunction or entrapment, actions to take if it occurs, and suggestions on how to safely recover.

Prepare – Before Elevator Malfunction or Entrapment

Specific procedures must be in place in the event of an elevator entrapment to expedite the release of occupants. These procedures may involve response from representatives of the elevator company or a rescue team from local fire and police departments. All occupants must be informed of how to call for assistance, and occupants must be warned that elevators must not be used during an evacuation.

Respond – During Elevator Malfunction or Entrapment

When an elevator malfunctions such that occupants cannot exit the cab, occupants

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should:

- Remain calm
- Use the emergency communications device in the elevator to request assistance
- Refrain from attempting to self-rescue.

Recover – After Elevator Malfunction or Entrapment

Whenever an individual has to be rescued from a stalled elevator, the elevator must be left out of service until an elevator inspector has had time to conduct an investigation. The outcome of the investigation may result in changes to procedures or equipment to ensure the safety of occupants.

EXPLOSION OR FIRE

General Information

An explosion is a sudden increase in volume and release of energy in a violent manner, usually with the generation of high temperatures and the release of gases. Explosions can be caused by accidents, mechanical failures, or intentional acts through the use of explosive devices such as improvised explosive devices (IEDs), vehicle-borne explosive devices (VBIEDs), suicide bombers, and pipe bombs.

A number of techniques can be used to detect explosives, including visual and physical inspections of individuals and vehicles, use of specially trained canine units for patrol and inspection, as well as specialized devices.

Fire can occur as a result of an explosion or due to accidents and intentional acts of arson. Fire is the most likely threat to life and property that may be faced by an OEO. Fires are serious, costly, and dangerous. Examples of common causes of fire include:

- Cooking equipment
- Electrical distribution or lighting equipment
- Heating equipment
- Smoking materials
- Lightning
- Spontaneous combustion or chemical reaction
- Contained trash or rubbish fire
- Intentional acts

Automatic fire detection systems detect, report, and act on fires in buildings. Information is received regarding smoke or heat problems in a building via devices that are connected to the fire control panel, such as smoke detectors, heat detectors, and sprinkler flow switches. Fire detection systems also detect when the alarm is set off manually.

Most buildings have manual pull stations (or manual call points) that are usually protected by glass. The fire alarm control panel automatically contacts emergency services. Because every fire control panel has a unique code address, emergency responders are able to locate the source of the alarm. Alarm signal devices may emit loud noise in the form of bells, speakers, or even sirens. Similarly, alarm signal devices may feature visuals that emit certain attention-getting lights such as strobe lights.

Systems used to extinguish fires include smoke control systems, hose standpipe systems, fire pumps, fire extinguishers, sprinkler systems, and other wet chemical or Halon systems.

The following sections provide information on how to prevent and prepare for an explosion or fire, actions to take if one occurs, and suggestions on how to safely recover from an explosion or fire. Actions are based on a compilation of recommendations from the following references:

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/hazard/fire/index.shtm

http://www.fema.gov/business/guide/section3a.shtm

http://www.usfa.dhs.gov/

National Fire Prevention Association

http://www.nfpa.org/index.asp

http://www.firesafety.gov/

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Centers for Disease Control and Prevention

http://www.bt.cdc.gov/masscasualties/preparingterroristbombing.asp

Occupational Safety and Health Administration

http://www.osha.gov/SLTC/firesafety/index.html

Prepare – Before an Explosion or Fire

Fire safety becomes everyone's job in a facility. A major portion of the OEO's efforts to deal with the threat of explosions or fire must be in prevention.[1] Although this section lists general recommendations to prepare for an explosion or fire, all fire safety plans should meet current International Fire Code and NFPA Life Safety Code requirements. Procedures must be written to avoid unnecessary detail and complexity but provide the following basic information that is reinforced through training and drills:

- Locations and use of fire alarm initiating devices and notification appliances and fire extinguishers
- Procedures to follow when the fire alarm is activated
- How to initiate an alarm and whom to notify after an alarm has been turned in
- Evacuation procedures and routes
- Any special needs for physically challenged individuals
- How to report anyone acting strangely or mysteriously.

Consider the following when developing a fire plan and procedures:

- Meet with the fire department to talk about the community's fire response capabilities. Talk about your operations. Identify processes and materials that could cause or fuel a fire or contaminate the environment in a fire.
- Have the facility inspected for fire hazards. Keep abreast fire codes and regulations, as they change frequently.
- Distribute fire safety information to occupants, including how to prevent fires in the workplace, how to contain a fire, how to evacuate the facility, and where to report a fire.
- Instruct occupants to crawl on their hands and knees when escaping a hot or smoke-filled area.
- Conduct evacuation drills. Post maps of evacuation routes in prominent places. Keep evacuation routes including stairways and doorways clear of debris.
- Establish procedures for the safe handling and storage of flammable liquids and gases.
- Establish procedures to prevent the accumulation of combustible materials.
- Establish a preventive maintenance schedule to keep equipment operating safely.
- Establish a system for warning occupants of a fire.
- Identify and mark all utility shutoffs so that electrical power, gas, or water can be shut off quickly.

[1] Some workplaces are required to have a Fire Prevention Plan by 29 CFR 1910.39.

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Instruct occupants to:

- Read the building's occupant emergency plan, paying particular attention to procedures to relocate to another floor of the building, or evacuate the building.
- Learn the location of all exits in their building.
- Know at least two separate paths to exits in the event the primary exit is blocked.
- Be familiar with the building stair identification scheme (letters, numbers, etc.) as it may be necessary to avoid certain stairs if one stair is blocked.
- Be familiar with stair locking arrangements and which floors allow re-entry into building spaces from the stair. If problems are encountered in a stair, it may be necessary to re-enter the building from a stairwell,
- Never ignore a fire alarm.
- Know where the fire alarm manual pull stations are located and be familiar with how to use them.
- Be familiar with building evacuation or relocation procedures. In low-rise buildings (generally up to five or six stories), general evacuation is the typical response. However, in high rise buildings, the response to fire may be to relocate to a safe floor one, two, or three floors below the fire.
- Know the assigned meeting place(s) outside the building, should building evacuation be necessary, so everyone can be accounted for.

Respond – During Explosion or Fire

The following are suggested steps for occupants to use in the event of an explosion or fire in the facility:

- Evacuate the immediate area. Do not attempt to fight a fire if it is beyond your knowledge, skills, and abilities.
- Notify others in the immediate area and assist anyone who needs help evacuating.
- If your clothes catch on fire, you should stop, drop, and roll until the fire is extinguished.
- Crawl low under any smoke to your exit – heavy smoke and poisonous gases collect first along the ceiling.
- After an explosion, watch for obviously weakened floors and stairways.
- Close doors behind you as you escape to delay the spread of the fire.
- Check closed doors for heat before you open them. If you are escaping through a closed door, use the back of your hand to feel the top of the door, the doorknob, and the crack between the door and doorframe before you open it. Never use the palm of your hand or fingers to test for heat – burning those areas could impair your ability to escape a fire by limiting your ability to use a ladder or crawl.
    - **Hot Door** – Do not open. Escape through a window. If you cannot escape, hang a white or light-colored sheet outside the window, alerting fire fighters to your presence.
    - **Cool Door** – Open slowly and ensure that fire and/or smoke is not blocking your escape route. If your escape route is blocked, shut the door immediately and use an alternate escape route, such as a window. If clear, leave immediately through the door and close it behind you.

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- Activate the fire alarm manual pull station upon exiting from the affected area.
- Do not attempt to re-enter the area to secure or retrieve belongings.
- Do not allow others to re-enter the area.
- From a safe location, dial 911 to report:
  - Location information:
    - Street address
    - Name of the building
    - Location of fire in the building
  - Description of the emergency
    - Nature and extent of the fire/smoke
    - If there are occupants missing or trapped (if known)
    - The number and extent of injuries (if known)
- Follow procedures for evacuation or other instructions provided by members of the OEO or fire department and watch for falling debris.

If an explosion occurs in or immediately adjacent to the facility, the area surrounding the explosion will be evacuated and kept clear to prevent destruction of evidence and to minimize the dangers of secondary explosions caused by other explosive devices, leaking gas lines, or falling debris. If people are injured, they will be given first aid while waiting for further medical assistance. Once you are out:

- Do not stand in front of windows, glass doors, or other potentially hazardous areas.
- Move away from sidewalks or streets to be used by emergency officials or others still exiting the building.

Note: Enhanced emergency procedures may need to be developed for sections of a facility that contain sensitive equipment and information.

If you become trapped in a building during a fire:

- Close the door to the space you are in immediately, no matter what your location, to prevent smoke and fire from entering the space. If smoke is entering the room through cracks around the door, stuff something in the cracks to slow the flow.
- If you are on the ground floor and a window that opens is available, carefully climb out if you can do so safely. If the window does not open, wave something so that emergency crews see you.
- If you are in an interior space with no window, stay near the floor where the air will have less smoke. Shout at regular intervals to alert emergency crews of your location.
- If you are in a room with the door closed and the fire alarm sounds, feel the door with the back of your hand. If the door is warm, do not open it.
- If you are on an upper floor and cannot reach one of the stairwells, go to an office with a window, close the office door, go to the window, and wave something so that emergency crews see you. Do not break the window, unless you are advised to do so by emergency personnel, because breaking the window may cause smoke and fire to spread into the room.
- If the phones are working, call to report your location:

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- Floor
- Room #
- How many are in the room
- Is anyone injured?

If you are trapped in debris:

- If possible, use a flashlight to signal your location to rescuers.
- Avoid unnecessary movement to limit dust.
- Cover your nose and mouth with anything you have on hand. (Dense-weave cotton material can act as a good filter. Try to breathe through the material.)
- Tap on a pipe or wall so that rescuers can hear where you are.
- If possible, use a whistle to signal rescuers.
- Shout only as a last resort. Shouting can cause a person to inhale dangerous amounts of dust.

If you notice smoke or fire outside of the building, remain in the building unless notified by emergency response personnel to take other actions. If visible smoke is present inside the building, move first to the first floor of the building and await further instructions. If smoke becomes thick, leave the building by means of the nearest exit and move upwind of the hazardous area.

- Stay away from damaged buildings to avoid falling glass and bricks. Move at least 10 blocks or 200 yards away from damaged buildings.
- Listen to your radio or television for news and instructions.

Recover – After an Explosion or Fire

Recovering from an explosion or fire can be a physically and mentally draining process. The following actions are suggested during the first 24 hours:

- Contact the local disaster relief service to help with immediate needs.
- Do not enter the damaged facility.
- Normally, the fire department will ensure that utilities (water, electricity, and natural gas) are either safe to use or are disconnected before they leave the site. Do not attempt to turn on utilities yourself.
- Food, beverages, and medicine exposed to heat, smoke, soot, and water should not be consumed.

HAZARDOUS MATERIAL INCIDENT

General Information

A hazardous material is any chemical, biological, or radiological substance that – when released, spilled, or spread in sufficient quantities -- poses a risk to health, safety, and property.

Chemicals are found everywhere but can be hazardous to humans or the environment if used or released improperly.

Biological agents are organisms or toxins that can kill or incapacitate people, livestock, and crops.

Radioactive materials are routinely used at hospitals, research facilities, and industrial and construction sites for such purposes as diagnosing and treating illnesses, sterilizing equipment, and inspecting welding seams.

The following sections provide information on how to prevent and prepare before a hazardous material incident occurs, actions to take if one occurs, and suggestions on how to safely recover afterward. The National Response Center Hotline is a service that receives reports of chemical, biological, and radiological releases and actual or potential domestic terrorism; provides technical assistance to emergency responders; and connects callers with appropriate Federal resources. The hotline operates 24 hours a day, 365 days a year: Call 800-424-8802.

HAZARDOUS MATERIAL INCIDENT: CHEMICAL

General Information

Chemicals are easily found in everyday surroundings, but they can be hazardous to humans or the environment if used or released improperly; for example chemical warfare agents can be released from aircraft, boats, and vehicles. Classical chemical warfare agents include a wide variety of different compounds that can affect humans in various ways. Chemical warfare agents commonly exist in either gas or liquid form. Examples include:

- **Nerve agents** – the most toxic of all chemical agents, nerve agents are highly poisonous chemicals that inhibit normal functions of the nervous system. An example is sarin gas (GB).
- **Blister agents/vesicants** – these chemicals severely blister the eyes, respiratory tract, and skin on contact. The gastrointestinal and central nervous systems are often affected by severe exposures to blister agents. An example is mustard gas.
- **Choking/lung/pulmonary agents** – these chemicals cause severe irritation or swelling of the respiratory tract (lining of the nose, throat, and lungs). Examples include ammonia, chlorine, and phosgene.

Other examples of chemicals that could have an adverse affect on people exposed to them include:

- **Biotoxins** – poisons derived from plants or animals. Naturally occusing biotoxins can also be synthesized. Examples include digitalis and ricin.
- **Blood agents** – poisons that affect the body by absorption into the bloodstream. Examples include carbon monoxide and cyanide.
- **Caustics (acids)** – chemicals that burn or corrode the skin, eyes, and mucus membranes (lining of the nose, mouth, throat, and lungs) on contact. One example is hydrofluoric acid.
- **Metals** – compounds that consist of metallic poisons. Examples include arsenic, thallium, and mercury.

A hazardous material incident can occur either by accident or through a deliberate act. For example:

- **Accidental -** during transportation of hazardous material by truck, train, ship, or boat; processing, manufacturing, or storage of hazardous material inside an industrial facility; spill or splash of hazardous material onto the skin of a laboratory employee.
- **Intentional -** Placing a battery-powered air freshener containing poisonous gas in a densely populated area, such as a cinema, or detonating an Improvised Explosive Device (IED).

Regardless of the source or cause of an incident, these materials could have a direct impact on occupants and should be addressed.

The Chemical Transportation Center (CHEMTREC), a service of the Chemical Manufacturers Association, provides 24-hour information on handling incidents in the transportation of chemicals. CHEMTREC has been declared the official "Hotline" for this type of emergency and can be reached at **1-800-424-9300.**

The following sections provide information on how to prevent and prepare for a hazardous material incident, actions to take if one occurs, and suggestions on how to safely recover after a hazardous material incident. Actions are based on a compilation of recommendations from the following references:

HAZARDOUS MATERIAL INCIDENT: CHEMICAL

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/business/guide/section3b.shtm

http://www.fema.gov/hazard/hazmat/index.shtm

Centers for Disease Control and Prevention

http://www.atsdr.cdc.gov/toxfaq.html

http://www.bt.cdc.gov/chemical/overview.asp

http://www.cdc.gov/niosh/docs/2003-136/

Prepare – Before a Chemical Hazardous Material Incident

Planning is necessary to make a facility safer and enable faster and more appropriate response to a hazardous material incident. Chemical agents are generally liquids, often aerosolized if weaponized, and most have either immediate effects or effects that manifest after a short delay. Some chemical agents such as mustard gas have a unique odor and color, although these characteristics should not serve as the most reliable means for agent identification.

Many preventive actions can be taken that do not require changes to a facility. These include preventing access to building air intakes, exhausts, HVAC equipment, and building and HVAC plans. Other actions may require changes to a facility that involve more significant expenses, including separate exhaust systems for high-risk areas, upgraded filters, and establishing internal safe zones.

Many communities have Local Emergency Planning Committees (LEPCs) whose responsibilities include collecting information about hazardous material in the community and making this information available to the public upon request. The LEPCs also are tasked with developing an emergency plan to prepare for and respond to chemical emergencies in the community.

Consider the following when developing your hazardous material incident response plan:

- Identify and label all hazardous material stored, handled, produced, and disposed of by your facility. Follow government regulations that apply to your facility.[2] Obtain material safety data sheets (MSDS) for all hazardous material at your location.
- Ask the local fire department for assistance in developing appropriate response procedures.
- Train employees in proper handling and storage of hazardous material.
- Depending on your operations, organize and train an emergency response team to confine and control hazardous material spills in accordance with applicable regulations.

[2] The Hazard Communication Standard (29 CFR 1910.1200) establishes uniform requirements for evaluation of all hazardous chemicals used in U.S. workplaces and communication of this information to the appropriate personnel. This Standard was designed to ensure that (1) employers receive the information they need to inform and train employees properly and to design and put in place employee protection programs, and (2) that employees receive necessary hazard information so they can participate in the development of protective measures in their workplaces and support them once they are in place.

HAZARDOUS MATERIAL INCIDENT: CHEMICAL

- Identify other facilities in your area that use hazardous material. Determine whether an incident could affect your facility.
- Identify highways, railroads, and waterways near your facility used for the transportation of hazardous material. Determine how a transportation accident near your facility could affect your operations.
- Choose an internal room to shelter, preferably one without windows and on the highest level.
- Check to be sure your disaster supplies kit is up to date.
- Other precautions for use of hazardous material include:
  - Keep products containing hazardous material in their original containers and never remove the labels unless the container is corroding. Corroding containers should be repackaged and clearly labeled.
  - Follow the manufacturer's instructions for the proper use of the chemical.
  - Dispose of hazardous material correctly.

Respond – During a Chemical Hazardous Material Incident

A hazardous material incident might not be immediately apparent because many agents are odorless and colorless and some cause no immediately noticeable effects or symptoms. Be alert to the following signs of the possible presence of hazardous material:

- Difficulty breathing; eye irritation; lost coordination; nausea; burning sensation in the nose, throat, and lungs
- Droplets of oily film on surfaces
- Unusual dead or dying animals in the area
- Unusual liquid sprays or vapors
- Unexplained odors (smell of bitter almonds, peach kernels, newly mown hay or green grass)
- Unusual or unauthorized spraying in the area
- Low-lying clouds or fog unrelated to weather; clouds of dust; or suspended, possibly colored, particles.

Determine whether the source of the hazard is inside or outside the facility. ***If the source location cannot be quickly determined,*** consider the following suggested actions:

- If there is an odor or other signs, use protective masks, then determine if the air is clean outside the building. If so, evacuate.
- If there are symptoms, but no odor or other sensory indications, evacuate.
- Check for other possible indicators of source:
  - In a multistory building, if signs/symptoms are not apparent on adjacent floors, it is likely an internal release on one floor.
  - If there are visible signs outside the building, such as people fleeing or responding to an airborne hazard, it is likely an external release.

HAZARDOUS MATERIAL INCIDENT: CHEMICAL

Hazardous Material Incident – Inside Facility

If you suspect a hazardous material incident in your immediate area, you should:

- Immediately cover your nose and mouth with a cloth or paper mask to prevent inhaling contaminants.
- Clear the area and have people move to a safe area outside the incident area.
- Close all doors leading to the incident area to prevent others from entering.
- Do not lock doors. (Emergency personnel will need access.)
- Notify authorities from another location.
- Wash hands and face with soap and cool water as soon as possible.
- Keep occupants who were not in the immediate area of the incident away from potentially exposed occupants.
- Inform all occupants who were potentially exposed to remain together in a safe area outside the incident area and await instructions from emergency personnel to reduce the chance of further contamination. Remember that the effects of exposure can sometimes take hours to days to become visible, depending on the hazardous material.

If the source is clearly inside and contained or localized, such as a package containing a hazardous material, consider the following suggested actions:

- Shut down all air-handling units that serve the affected floor.
- Isolate the affected area by closing doors and fire doors.
- Communicate with the fire department for assistance.
- Evacuate the affected floor(s) via routes away from the affected area.

If the source is clearly inside but <u>not</u> contained or localized, such as resulting from an accident causing the release or spill of a hazardous material in the facility, consider the following suggested actions:

- Shut down all air-handling units until the type of hazard and extent of its spread can be determined.
- Evacuate the affected floor(s).
- If the hazard is a perceptible agent, initiate purging with smoke fans, if available.

In the event of direct contact with a hazardous substance through the skin:

- Go to the emergency shower or sink.
- Remove any contaminated clothing.
- Wash the affected area with lukewarm water thoroughly for 15 minutes.
- Seek medical attention or follow the facility medical response procedure.
- Notify facility management and/or security personnel.

Chemical Hazardous Material Incident – Outside Facility

If the source is clearly outside and there is no indication that the hazardous material has begun to enter the building, initiate sheltering procedures and communicate with the fire department about the likely duration of the event (how long until the release will be contained).

HAZARDOUS MATERIAL INCIDENT: CHEMICAL

Listen to local radio or television stations for detailed information and instructions. The following are suggested actions ***if you are requested to stay indoors*** because of a hazardous material incident outside the facility:

- Close and lock all exterior doors and windows. Close vents, fireplace dampers, and as many interior doors as possible.
- Turn off air conditioners and ventilation systems. In large facilities, set ventilation systems to 100 percent recirculation so that no outside air is drawn into the facility. If this is not possible, ventilation systems should be turned off.
- Go into the pre-selected shelter room with 10 square feet of floor space per person (to provide sufficient air to prevent carbon dioxide build-up for up to five hours, assuming a normal breathing rate while resting). This room should be above ground and have the fewest openings to the outside.
- Seal gaps under doorways and windows with wet towels or plastic sheeting and duct tape.
- Seal gaps around window air conditioning units and around bathroom and kitchen exhaust fans with duct tape and plastic sheeting, wax paper, or aluminum wrap.
- Use material to fill cracks and holes in the room, such as those around pipes.
- If gas or vapors could have entered the building, take shallow breaths through a cloth or a towel.
- Avoid eating or drinking any food or water that may be contaminated.

The following are suggested actions ***if caught outside*** during a hazardous material incident:

- Stay upstream, uphill, and upwind. In general, try to go at least one-half mile (usually 8-10 city blocks) from the danger area. Move away from the incident scene and help keep others away.
- Do not walk into or touch any spilled liquids, airborne mists, or condensed solid chemical deposits. Try not to inhale gases, fumes, and smoke. If possible, cover mouth with a cloth while leaving the area.
- Stay away from incident victims until the hazardous material has been identified.

Recover – After a Chemical Hazardous Material Incident

The following are guidelines for the period following a chemical hazardous material incident:

- Return home only when authorities say it is safe. Open windows and vents and turn on fans to provide ventilation.
- Act quickly if you have come in to contact with or have been exposed to hazardous chemicals. Do the following:
  - Follow decontamination instructions from local authorities. You may be advised to take a thorough shower, or you may be advised to stay away from water and follow another procedure.
  - Seek medical treatment for unusual symptoms as soon as possible.
  - Place exposed clothing and shoes in tightly sealed containers. Do not allow them to contact other material. Call local authorities to find out about proper disposal.

HAZARDOUS MATERIAL INCIDENT: CHEMICAL

- Advise everyone who comes in to contact with you that you may have been exposed to a toxic substance.

- Find out from local authorities how to clean up your land and property.
- Report any lingering vapors or other hazards to your local emergency services office.

HAZARDOUS MATERIAL INCIDENT: BIOLOGICAL

General Information

Biological agents are organisms or toxins that can kill or incapacitate people, livestock, and crops. Bioterrorism is the deliberate or threatened use of bacteria, viruses, and toxins to cause disease, death, or fear. Terrorists may use biological agents because they can be extremely difficult to detect and do not cause illness for several hours to several days.

Biological agents can be spread in a number of ways:

- **Aerosols** – biological agents and toxins can be dispersed into the air, forming a fine mist that may drift for miles. Inhaling the agent may cause disease in people or animals.
- **Animals** – insects and animals, such as fleas, mice, flies, mosquitoes, and livestock, can spread diseases.
- **Food and water contamination** – certain pathogenic organisms and toxins may persist in food and water supplies and have the ability to spread widely among the population. For example, tetanus is a noncommunicable disease caused by toxins from food poisoning or infection caused by toxins in the environment. However, most food- or water-borne microorganisms and toxins can be killed or deactivated by heat (e.g., cooking contaminated food and boiling water).
- **Person-to-person** – the spread of infectious agents is also possible through close or direct contact. Communicable diseases that pose health risks to people have always existed. Although the spread of many communicable diseases has been controlled through vaccination and other public health countermeasures, the threat of avian influenza ("bird flu") and terrorist acts worldwide raises serious concerns about the possibility of a major infectious disease outbreak. Therefore, it is crucial to understand what can and should be done to protect the public from the threat of communicable diseases.

Any infectious agent could theoretically be engineered for deliberate use as a weapon. While no one knows for sure exactly which agents terrorists will use, public health officials are most concerned with the **disease threats** listed below. The Centers for Disease Control and Prevention (CDC) lists the following as Category A Bioterrorism Agents.

- **Anthrax**
    - **Inhalational anthrax** is the most serious form of anthrax and results from breathing bacterial spores into the lungs. Once in the lungs, the spores germinate into live bacteria that release potent toxins. The disease starts with flu-like symptoms, followed by severe respiratory complications. Without treatment, death may occur within two to three days of symptoms. Exposure to airborne anthrax spores could cause symptoms as soon as two days after exposure or as late as six to eight weeks after exposure. Once symptoms appear, antibiotics may have limited effectiveness for treatment of inhalational anthrax because it is too advanced.
    - **Cutaneous anthrax**, the skin form of anthrax, is the most common form of anthrax and results from contamination of the skin with anthrax spores such as direct contact with infected livestock or livestock products (particularly on exposed areas of the hands, arms, or face). The disease begins with a local swelling that may look like an insect bite and progresses to a fluid-filled blister. The blister dries, ulcerates, and then forms a coal-black scab known as an eschar (the word anthrax comes from the Greek word for coal).

HAZARDOUS MATERIAL INCIDENT: BIOLOGICAL

Without antibiotic treatment, the local infection may spread through the body to cause systemic disease and can be fatal.

- **Gastrointestinal Anthrax** is believed to result from ingesting a vegetative form of anthrax spores or from eating undercooked, infected meat. Symptoms usually appear within two to five days of ingestion. If untreated, systemic disease may develop and signs and symptoms will resemble those of inhalational and cutaneous anthrax infection.

- **Smallpox** is a serious viral disease that starts with fever, aches, fatigue, and vomiting, and progresses to a rash with blisters over much of the body. Initially, the rash may be confused with chicken pox. Smallpox spreads directly from person to person through airborne transmission. Because it is a virus, it does not respond to antibiotics. Since the disease's eradication in 1980, routine vaccination has discontinued; however, vaccines are still available for specific uses such as for military personnel, and antiviral drugs are available for smallpox under an FDA Investigational New Drug (IND) protocol.
- **Pneumonic plague** is caused by the bacteria that was responsible for the "Black Death." The symptoms begin with severe pneumonia, including high fever, chills, and cough. Without prescription antibiotics, respiratory failure and death may occur within 12 to 24 hours after the initial symptoms appear. Pneumonic plague spreads directly from person to person through the air (e.g., cough, sneeze). A vaccine exists for prevention of *bubonic* plague (when the lymph nodes are infected instead of the lungs), but the vaccine is not considered effective against pneumonic plague.
- **Botulism** is caused by a bacterial toxin or protein through inhalation or ingestion. It is one of the most potent toxic compounds known. Affected individuals may have difficulty speaking, seeing, and swallowing. Depending on the severity of exposure, symptoms may progress to general muscle weakness and respiratory failure. Without adequate respiratory care and treatment with antitoxin, death can occur within 24 to 72 hours. *Botulism does not spread from person to person*. A bioterrorist attack would likely involve airborne or food-borne release of botulinum toxin.
- **Tularemia,** a native of Tulare County, California, is also known as Rabbit Fever. Its CDC Category A Bioterrorism Agents status can be attributed mostly to its virulence; however, *tularemia cannot spread from person to person*. In a bioterrorist attack, the agent would be aerosolized for an airborne release. Fever, headache, and a pneumonia-like illness characterize the disease. Without antibiotic treatment, the disease can progress to respiratory failure, shock, and death. Vaccines are being developed and reviewed by the Food and Drugs Administration (FDA), but they are not yet available for widespread use.
- **Viral Hemorrhagic Fevers** (VHF) are caused by a diverse group of viruses (e.g., Ebola, Marburg, Yellow Fever, Lassa, and Rift Valley). VHFs such as Ebola and Marburg are often associated with high mortality rates, ranging between 25% and 90%. Illness generally begins with flu-like symptoms such as fever, fatigue, dizziness, headache, and muscle aches. Severe infection may lead to death due to complications from massive bleeding and shock. Bodily fluids and airborne transmission are the primary routes of disease spread. A vaccine is available for the prevention of Yellow Fever; however, vaccines are not yet available for other VHFs. Supportive care such as fluid resuscitation and mechanical ventilation is required for all VHFs, while the antiviral drug Ribavirin may be effective against certain VHFs.

The following sections provide information on how to prevent and prepare for a biological incident, actions to take if one occurs, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

HAZARDOUS MATERIAL INCIDENT: BIOLOGICAL

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/hazard/terrorism/bio/index.shtm

American Red Cross

http://www.redcross.org/preparedness/cdc_english/quarantine-1.asp

Prepare – Before a Biological Incident

Before a biological incident, consider the following suggested actions:

- Check with your doctor to ensure that all required or suggested immunizations are up to date. Children and older adults are particularly vulnerable to biological agents.
- Consider installing a High Efficiency Particulate Air (HEPA) filter in your furnace return duct. These filters remove particles in the 0.3 to 10 micron range and will filter out most biological agents that may enter your house. If you do not have a central heating or cooling system, a stand-alone portable HEPA filter can be used.

Building owners and managers should determine the type and level of filtration in their structures and the level of protection the filtration system provides against biological agents.

Respond – During a Biological Incident

In the event of a biological attack, public health officials may not immediately be able to provide information on what you should do. It will take time to determine what the illness is, how it should be treated, and who is in danger. Watch television, listen to radio, or check the Internet for official news and information including signs and symptoms of the disease, areas in danger, if medications or vaccinations are being distributed, and where you should seek medical attention if you become ill.

The first evidence of an attack may be when you notice symptoms of the disease caused by exposure to an agent. Be suspicious of any symptoms you notice, but do not assume that any illness is a result of the attack. Use common sense and practice good hygiene.

If you become aware of an unusual and suspicious substance nearby:

- Move away quickly.
- Wash your hands with soap and water.
- Contact authorities.
- Listen to the media for official instructions.
- Seek medical attention if you become sick.

If you are exposed to a biological agent:

- Remove and bag your clothes and personal items. Follow official instructions for disposal of contaminated items.
- Wash yourself with soap and water and put on clean clothes.
- Seek medical assistance. You may be advised to stay away from others, or you may even be quarantined.

HAZARDOUS MATERIAL INCIDENT: BIOLOGICAL

Using High-Efficiency Particulate Air (HEPA) Filters

- HEPA filters are useful in biological attacks. If you have a central heating and cooling system with a HEPA filter, leave it on if it is running or turn the fan on if it is not running. Moving the air through the filter will help remove the agents from the air. If you have a portable HEPA filter, take it with you to the internal room where you are seeking shelter and turn it on.
- If you are in an apartment or office building that has a modern, central heating and cooling system, the system's filtration should provide a relatively safe level of protection from outside biological contaminants.
- HEPA filters will not filter chemical agents.

Recover – After a Biological Incident

In some situations, such as the case of the anthrax letters sent in 2001, people may be alerted to potential exposure. If this is the case, pay close attention to all official warnings and instructions on how to proceed. The delivery of medical services for a biological event may be handled differently in response to increased demand. The basic public health procedures and medical protocols for handling exposure to biological agents are the same as for any infectious disease. It is important for you to pay attention to official instructions via radio, television, and emergency alert systems.

If you believe you have been exposed to an infectious biological agent or if you develop symptoms that you believe might be associated with such an exposure, immediately contact a physician. Your physician may choose to contact the local health department to determine the best course of action based on the circumstances of the exposure.

In addition to early detection, rapid diagnosis, and treatment with antibiotics or antivirals, quarantine and isolation may be used to contain the spread of illness. *Isolation* applies to persons who are known to be ill with a contagious disease. *Quarantine* applies to those who have been exposed to a contagious disease but who may or may not become ill.

HAZARDOUS MATERIAL INCIDENT: RADIOLOGICAL

General Information

Radioactive materials emit a form of energy that travels in waves or particles. This energy is called radiation. Radioactive materials are routinely used in hospitals, research facilities, and industrial and construction sites for such purposes as diagnosing and treating illnesses, sterilizing equipment, and inspecting welding seams.

Radioactive contamination and radiation exposure could occur if radioactive materials are released into the environment as the result of:

- An accidental or intentional release from a **medical or industrial device**
- A **nuclear power plant accident** or attack on a fixed nuclear facility
- **Suitcase bombs, which** are small nuclear bombs that would produce a nuclear blast that is very destructive, but not as great as a nuclear weapon developed for strategic military purposes.
- **Radiological Dispersal Devices (RDD),** also known as "dirty bombs," consisting of radioactive material combined with conventional explosives. They are designed to use explosive force to disperse the radioactive material over a large area, such as multiple city-blocks.
- A **nuclear bomb, which** creates an explosion that is significantly more powerful than that of a dirty bomb. The cloud of radiation from a nuclear bomb could spread tens to hundreds of square miles, whereas a dirty bomb's radiation could be dispersed within a few blocks or miles of the explosion. When a nuclear device is detonated, a large fireball is created. Everything inside of this fireball vaporizes, including soil and water, and is carried upwards. This creates the mushroom cloud that we associate with a nuclear blast, detonation, or explosion.

As radioactive material spreads, it becomes less concentrated and less harmful. Prompt detection of the type of radioactive material used will greatly assist local authorities in advising the community on protective measures, such as sheltering in place, or immediate evacuation from the affected areas. Radiation can be readily detected with equipment already carried by many emergency responders.

Such a release could expose people and contaminate their surroundings and personal property. A person exposed to radiation is not necessarily contaminated with radioactive material. A person who has been exposed to radiation has had radioactive waves or particles penetrate the body, like having an x-ray. For a person to be contaminated, radioactive material must be on or inside of his or her body, as described below:

- **External contamination** occurs when radioactive material, in the form of dust, powder, or liquid, comes into contact with a person's skin, hair, or clothing. In other words, the contact is external to a person's body.
- **Internal contamination** occurs when people ingest or inhale radioactive materials, or when the body absorbs radioactive materials through an open wound on the skin.

Radiation can affect the body in a number of ways, and the adverse health effects of exposure may not be apparent for many years. These adverse health effects can range from mild effects, such as skin reddening, to serious effects such as cancer and death, depending on the amount of radiation absorbed by the body (the dose), the type of radiation, the route of exposure, and the length of exposure. Exposure to very large doses of radiation may cause death within a few

HAZARDOUS MATERIAL INCIDENT: RADIOLOGICAL

days or months. Exposure to lower doses of radiation may lead to an increased risk of developing cancer or other adverse health effects later in life.

The following sections provide information on how to prevent and prepare before a radiological incident occurs, actions to take if one occurs, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

Occupational Safety and Health Administration

http://www.osha.gov/SLTC/emergencypreparedness/rdd_tech.html

Nuclear Regulatory Commission

http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/dirty-bombs.html

Nuclear Regulatory Commission Operations Center: 301-816-5100 (collect calls accepted)

Centers for Disease Control and Prevention

http://www.bt.cdc.gov/radiation/#public

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/hazard/nuclear/index.shtm

Environmental Protection Agency

http://www.epa.gov/radiation/rert/pags.htm

http://www.epa.gov/radiation/rert/rert.htm

Prepare – Before a Radiological Incident

Since radiation cannot be seen, smelled, felt, or tasted, people at the site of an incident will not know whether radioactive materials were involved. You can take the following steps to minimize your exposure:

- The more distance between you and the source of the radiation, the better. Distancing yourself from the radiation source could involve evacuation or remaining indoors to minimize exposure. If there is a chance that clothing has become contaminated, removing the outer layer of clothes and placing them in an out-of-the-way area can reduce exposure.
- The more heavy, dense material between you and the source of the radiation, the better
- Most radioactivity loses its strength fairly quickly.

Your community should have a plan in place in case of a radiation emergency. Check with community leaders to learn more about the plan and possible evacuation routes.

Obtain public emergency information materials from the power company that operates your local nuclear power plant or your local emergency services office. If you live within 10 miles of the power plant, you should receive these materials yearly from the power company or your state or local government. In addition, familiarize yourself with these terms in the event of a nuclear power plant emergency:

- **Notification of Unusual Event** – A small problem has occurred at the plant. No radiation leak is expected. No action on your part will be necessary.

HAZARDOUS MATERIAL INCIDENT: RADIOLOGICAL

- **Alert –** A small problem has occurred, and small amounts of radiation could leak inside the plant. This will not affect you and no action is required.
- **Site Area Emergency –** Area sirens may be sounded. Listen to your radio or television for safety information.
- **General Emergency –** Radiation could leak outside the plant and off the plant site. The sirens will sound. Tune to your local radio or television station for reports. Be prepared to follow instructions promptly.

Respond – During a Radiological Incident

After a release of radioactive materials, local authorities will monitor the levels of radiation and determine what protective actions to take. The most appropriate action will depend on the situation. Tune in to local emergency response network or news station for information and instructions during any emergency. If a radiation emergency involves the release of large amounts of radioactive materials, you may be advised to either shelter in place or evacuate.

If you are advised to shelter in place, you should do the following:

- Close and lock all doors and windows.
- Turn off fans, air conditioners, and forced-air heating units that bring in fresh air from the outside. Only use units to recirculate air that is already in the building.
- Move to an inner room or basement.
- Cover your mouth and nose with a face mask or other material (such as a scarf or handkerchief) until the fallout cloud has passed.
- Shut off ventilation systems and seal doors or windows until the fallout cloud has passed. However, after the fallout cloud has passed, unseal the doors and windows to allow some air circulation.
- Stay inside until authorities say it is safe to come out.
- Listen to the local radio or television for information and advice. Authorities may direct you to stay in your shelter or evacuate to a safer place away from the area.
- If you must go out, cover your mouth and nose with a damp towel.
- Use stored food and drinking water. Do not eat local fresh food or drink water from open water supplies.
- Clean and cover any open wounds on your body.
- Keep your radio tuned to the emergency response network or local news to find out what else you need to do.

If you are advised to evacuate, follow the directions that your local officials provide. Leave the area as quickly and orderly as possible.

- Listen to the radio or television for information about evacuation routes, temporary shelters, and procedures to follow.
- Before you leave, close and lock windows and doors and turn off air conditioning, vents, fans, and furnace. Close fireplace dampers.

HAZARDOUS MATERIAL INCIDENT: RADIOLOGICAL

- Take disaster supplies with you (such as a flashlight and extra batteries, battery-operated radio, first aid kit and manual, emergency food and water, nonelectric can opener, essential medicines, cash and credit cards, and sturdy shoes).
- Remember that your neighbors may require special assistance, especially infants, elderly people, and people with disabilities.
- Keep car windows and vents closed; use re-circulating air.

If you are **inside and close to the incident:**

- If the walls and windows of the building are not broken, stay in the building and do not leave.
- To keep radioactive dust or powder from getting inside, shut all windows, outside doors, and fireplace dampers. Turn off fans and heating and air-conditioning systems that bring in air from the outside. It is not necessary to put duct tape or plastic around doors or windows.
- If the walls and windows of the building are broken, go to an interior room and do not leave. If the building has been heavily damaged, quickly go into a building where the walls and windows have not been broken. If you must go outside, be sure to cover your nose and mouth with a cloth. Once you are inside, take off your outer layer of clothing and seal it in a plastic bag if available. Store the bag where others will not touch it.
- Shower or wash with soap and water, removing any remaining dust. Be sure to wash your hair.
- Tune to local radio or television news for more instructions.
- Turn off the air conditioner, ventilation fans, furnace, and other air intakes.
- Go to a basement or other underground area, if possible.
- Do not use the telephone unless absolutely necessary.
- Food and water supplies most likely will remain safe. However, any unpackaged food or water that was out in the open and close to the incident may have radioactive dust on it. Therefore, do not consume water or food that was out in the open.
- The food inside of cans and other sealed containers will be safe to eat. Wash the outside of the container before opening it.
- Authorities will monitor food and water quality for safety and keep the public informed.
- Low levels of radiation exposure (like those expected from a dirty bomb situation) do not cause any symptoms. Higher levels of radiation exposure may produce symptoms, such as nausea, vomiting, diarrhea, and swelling and redness of the skin. If you develop any of these symptoms, you should contact your doctor, hospital, or other sites recommended by authorities.

Recover – After a Radiological Incident

Depending on the nature and extent of the radiological incident, prior to allowing access to potentially contaminated areas, authorities will evaluate the environmental conditions in the affected areas by conducting radiation measurements and beginning recovery operations including any necessary decontamination of facilities.

HOSTAGE SITUATION

General Information

The use of hostages to gain negotiating advantage has increased. Many government facilities are particularly suceptible to this threat because of the high level of public access.

Hostage taking involves three groups of participants:

- **Hostage taker(s)** include individuals that may be emotionally disturbed, motivated by political or religious reasons, criminals, prison inmates, or some combination of these. They are more or less goal oriented, may make substantive demands – usually including escape – need police to facilitate demands, are motivated by having the demands met as opposed to harming the hostages, and realize that keeping some hostages alive prevents a tactical response.
- **Hostages** usually have no value for the hostage taker except as a tool to influence or gain the attention of the third person.
- **Third persons or entities** interact with the hostage taker and are usually properly trained and equipped law enforcement agencies.

A traditional hostage situation is when one or more hostage taker(s) holds and threatens harm to one or more persons, or hostage(s), unless a third party fulfills the hostage taker's demands. Example hostage situations include the taking of hostages during or following a crime for protection, and the seizure of a ship or airliner for safe passage. A hostage taker may also hold the hostage based on internal emotions and impulses with no substantive demands made.

Prepare – Before a Hostage Situation

All facilities should have written plans to deal with hostage situations that are coordinated with Federal and local law enforcement agencies. Plans must emphasize the use of properly trained law enforcement agencies. The plan should include, at a minimum, the following information:

- Telephone numbers for law enforcement agencies that will provide support in a hostage situation
- Designation of officials responsible for assisting law enforcement agencies with negotiations (name, position title, and telephone number of designated official).

Law enforcement agencies and local police departments should be contacted to determine the resources available for handling hostage situations. Assistance with specific planning needs and training for the employees designated in the plan should also be pursued.

Coordination and participation is essential for successful hostage repatriation and recovery.

- Create and exercise contingency plans for hijacking and hostage taking.
- Report information about hostage taking to senior managers immediately.
- Only high-level managers should make public or media statements.

Take steps to avoid hostage situations by implementing the following recommendations:

- Identify where employees and stakeholders risk becoming hostages.
- Provide training on how to avoid hostage situations.
- Provide training on appropriate actions in the event of being taken hostage.

HOSTAGE SITUATION

Respond – During a Hostage Situation

The following guidelines are provided as general background on the control of hostage situations and will be used until the appopriate law enforcement agency takes control of the incident:

- Isolate the area involved by evacuating employees, the public, and any other visitors to the site.
- Cordon off the area to prevent entry by unauthorized persons.
- Until enforcement personnel arrive and if approved by enforcement personnel, communications with hostage captors should be maintained by the designated official, if appropriate, and should be conducted in such a way as to avoid provoking the captor(s) or escalating the incident.

If you **observe a hostage situation**, the following are suggested actions:

- Leave the immediate area without causing suspicion.
- Proceed to a safe area and notify the authorities.
- Inform the authorities of the location of the hostage situation, who was taken as hostage(s), the number of captors, and whether or not the captors are armed.
- Provide your name, location, and telephone number.
- Remain in the area, stay calm, and avoid discussing the situation with anyone else, if possible, until the proper authorities arrive.
- Whenever possible, leave negotiations with the captor(s) to trained negotiators.
- Anyone that has established communication and rapport with the captor(s) must stand by and brief the trained negotiators upon their arrival. Continue to stand by in the event that additional assistance is required with the negotiators.

If **you are taken hostage**, the following are suggested actions:

- Remain calm, be polite, and cooperate with your captors.
- Do not attempt escape unless there is an extremely good chance of survival. It is safer to be submissive and obey your captors.
- Speak normally. Do not complain, avoid being belligerent, and comply with all orders and instructions.
- Do not draw attention to yourself with sudden body movements, statements, comments, or hostile looks.
- Observe the captors and try to memorize their physical traits, voice patterns, clothing, or other details that can help provide a description later.
- Avoid getting into political or ideological discussions with the captors.
- Try to establish a relationship with your captors and get to know them. Captors are less likely to harm you if they respect you.
- If forced to present terrorist demands to authorities, either in writing or on tape, state clearly that the demands are from your captors. Avoid making a plea on your own behalf.
- Try to stay low to the ground or behind cover from windows or doors, if possible.

HOSTAGE SITUATION

- During a rescue operation:
  - Do not run. Drop to the floor and remain still. It that is not possible, cross your arms, bow your head, and stand still. Make no sudden moves that a tense rescuer may interpret as hostile or threatening.
  - Wait for instructions and obey all instructions you are given.
  - Do not be upset, resist, or argue if a rescuer isn't sure whether you are a terrorist or a hostage.
  - Even if you are handcuffed and searched, do not resist. Just wait for the confusion to clear. You will be taken to a safe area, where proper identification and status will be determined.

Trained staff should communicate with reporters and media personnel to minimize risk, confusion, and damage:

- Contact trained staff to communicate with reporters and media personnel.
- Confirm a hostage-taking event without details.
- Confirm primary concern for hostage safety, unless the site is threatened.
- Confirm cooperation with law enforcement and security experts.

Recover – After a Hostage Situation

After a hostage situation, the facility emergency response processes and procedures should be examined to determine if modifications are warranted. More importantly, the emotional toll that a hostage situation brings can sometimes be devastating. Everyone who sees or experiences it is affected in some way. It is normal to feel anxious about your own safety and that of your family and close friends. Profound sadness, grief, and anger are normal reactions to an abnormal event. Everyone has different needs and different ways of coping such as:

- Talk with someone about your feelings – anger, sorrow, and other emotions – even though it may be difficult.
- Do not hold yourself responsible for the event or be frustrated because you feel you cannot help directly in the rescue work.
- Take steps to promote your own physical and emotional healing by healthy eating, rest, exercise, relaxation, and meditation.
- Maintain a normal family and daily routine, limiting demanding responsibilities on yourself and your family.
- Use existing support groups of family, friends, and religious institutions.

MEDICAL EMERGENCY: GENERAL

General Information

Medical emergencies may require basic first aid or more advanced lifesaving skills. First aid refers to medical attention that is usually administered immediately after the injury occurs and at the location where it occurred. It often consists of a one-time, short-term treatment and requires little technology or training to administer. [3] Advanced life saving may include rescue breathing, cardiopulmonary resuscitation (CPR), or the Heimlich maneuver.

Medical emergencies are divided into two categories based on the number of injuries. Limited medical emergencies involve one person who is in need of medical assistance; multiple medical emergencies involve more than one person who require medical assistance as a result of the same accident or exposure.

Life-threatening medical emergencies can include:

- Chest pain
- Stroke
- Breathing problems
- Anaphylactic reaction
- Hypoglycemia in diabetics taking insulin
- Seizures
- Pregnancy complications
- Abdominal injury
- Reduced level of consciousness
- Impaled object

Non-life-threatening medical emergencies include:

- Wounds – abrasions, cuts, lacerations, punctures, avulsions, amputations and crush injuries, eye injuries
- Burns – thermal, electrical, or chemical
- Temperature extremes resulting in frostbite and hypothermia from exposure to cold and heat cramps, heat exhaustion and heat stroke from exposure to heat.
- Musculoskeletal injuries including fractures; sprains, strains, contusions and cramps; head, neck, back and spinal injuries; appropriate handling of amputated body parts.

The following sections provide information on how to prevent and prepare before a medical emergency occurs, actions to take if one occurs, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

Occupational Safety and Health Administration

http://www.osha.gov/SLTC/medicalfirstaid/index.html#hottopics

American Red Cross

http://www.redcross.org/services/hss/courses/workplace.html

Prepare – Before a Medical Emergency

Preplanning will enhance the safety and survivability of those individuals who may be

[3] The OSHA First Aid standard (29 CFR 1910.151) requires trained first-aid providers at all workplaces of any size if there is no "infirmary, clinic, or hospital in near proximity to the workplace which is used for the treatment of all injured employees." If an employee is expected to render first aid as part of his or her job duties, the employee is covered by the requirements of the Occupational Exposure to Bloodborne Pathogens standard (29 CFR 1910.1030).

MEDICAL EMERGENCY: GENERAL

injured and/or trapped in a building or area. The larger the complex, the greater the possibility exists that an emergency will result in a situation that will require an organized rescue operation. In large facilities, planning must include provisions for getting medical assistance for events that result in large-scale injuries.

Employers should make an effort to obtain estimates of EMS response times for all permanent and temporary locations and for all times of the day and night at which they have workers on duty, and they should use that information when planning their first-aid program. When developing a workplace first-aid program, consultation with the local fire and rescue service or emergency medical professionals may be helpful for response time information and other program issues. Because it can be a workplace event, SCA should be considered by employers when planning a first-aid program. It is advisable to put the First-Aid Program policies and procedures in writing. Policies and procedures should be communicated to all employees, including those workers who may not read or speak English. Language barriers should be addressed both in instructing employees on first-aid policies and procedures and when designating individuals who will receive first-aid training and become the on-site first-aid providers.

Medical assistance will not be required in all emergencies. However, the availability of medical assistance must be known in the event the emergency does result in injuries. To reduce response time as much as possible, identify available sources of medical assistance, which may include:

- FPS Officers (all are trained in first aid)
- Onsite facility health units or clinics
- Police and fire department personnel
- Rescue squads and hospitals
- Local physicians
- Occupants certified in first aid.

A facility's first aid supplies should reflect the kinds of injuries that could occur and be stored in an area where they are readily available for emergency access. An automated external defibrillator (AED)[4] should be considered when selecting first-aid supplies and equipment. For large operations, employers should determine how many first-aid kits are needed and whether or not it is appropriate to augment the kits with additional first-aid equipment and supplies. Employers should periodically reassess the demand for these supplies and adjust their inventories.

A first aid training program can be offered for occupants that includes instruction in or discussion of the following:

- Prevention as a strategy in reducing fatalities, illnesses, and injuries
- Interacting with the local emergency medical system
- Maintaining a current list of emergency telephone numbers (police, fire, ambulance, poison control) accessible by all employees

[4] As part of the President's Federal Employee Initiative for the 21st Century and to ensure that injured employees receive the best possible care, Automated External Defibrillators (AED) may be installed in the facility to reduce the damaging effects of sudden cardiac arrest.

MEDICAL EMERGENCY: GENERAL

- Understanding the legal aspects of providing first-aid care, including Good Samaritan legislation, consent, abandonment, negligence, assault and battery, and State laws and regulations
- Understanding the effects of stress, fear of infection, and panic; how they interfere with performance; and what to do to overcome these barriers to action
- Learning the importance of universal precautions and body substance isolation to provide protection from bloodborne pathogens and other potentially infectious materials.
- Learning about personal protective equipment (PPE) – gloves, eye protection, masks, and respiratory barrier devices.

Respond – During a Medical Emergency

In the event of a medical emergency, professional medical assistance (rescue squad, fire department, etc.) must be called immediately. After actions are taken to prevent further injuries, the first priority becomes aiding the injured.

The person observing a medical emergency should:

- Assess the scene for safety, number of injured, and nature of the event
- Dial 911 and provide:
  - Nature of the emergency
  - Location of the facility including street address, nearest cross street, and name of building
  - Location of the injured person(s) in the facility including floor and room number
- Prioritize care when there are several injured by assessing each for responsiveness, breathing, circulation, and medical alert tags and performing a logical head-to-toe check for injuries
- Stay with the injured person(s) and do whatever possible until medical assistance arrives
- Calm the person, keep them warm, and reassure them that they will be all right.

Recover – After a Medical Emergency

After a medical emergency, the following actions should be taken:

- **Complete all appropriate injury/incident reporting.** Examples of reports include those for incidents, accidents, medical treatment, workers compensation, and injury/illness logs. Notifications may be required to the Occupational Safety and Health Administration within eight hours if anyone dies or if three or more persons receive medical attention other than first aid.
- **Analyze the cause of the medical emergency.** If it was due to an accident, examine enhancements to accident prevention awareness and whether attributes of the facility could be modified to reduce risk of further injury. If it was a medical condition that was unrelated to the environment, determine if enhancements to the wellness program would be beneficial.
- **Examine the effectiveness of response**. Determine whether or not improvements can be made in procedures, training, available equipment, etc., to streamline the provision of aid to occupants.

MEDICAL EMERGENCY: PANDEMIC INFLUENZA

General Information

An influenza (flu) pandemic is a worldwide flu outbreak that occurs when a new type of influenza virus appears and people have no immunity against the virus. The human population is highly susceptible to the novel virus because they have not been exposed to it before or have not been exposed to it in a long time. To adequately prepare for a possible pandemic influenza outbreak, the first step is to understand the different terms widely used to describe the flu:

Seasonal (or common) flu – is a respiratory illness that can be transmitted person to person. Most people have some immunity, and a vaccine is available. Seasonal flu occurs on a yearly basis.

Pandemic flu – is virulent human flu that causes a global outbreak, or pandemic, of serious illness. Because there is little natural immunity, the disease can spread easily from person to person. A pandemic may come and go in waves, each of which can last for six to eight weeks. Currently, there is no pandemic flu.

Avian (or bird) flu (AI) – is caused by influenza viruses that occur naturally among wild birds. Low pathogenic AI is common in birds and causes few problems. H5N1 is highly pathogenic, deadly to domestic fowl, and can be transmitted from birds to humans. There is no human immunity and no vaccine is available. H5N1 is of particular concern because it is one of the few avian influenza viruses to have crossed the species barrier to infect humans, and it is the most deadly of those that have crossed the barrier**.** So far, the spread of H5N1 virus from person to person has been limited and has not continued beyond one person. Nonetheless, because all influenza viruses have the ability to change, scientists are concerned that the H5N1 virus could one day be able to infect humans and spread easily from one person to another.

The following table provides additional comparisons between seasonal influenza and pandemic influenza:

Seasonal Influenza	Pandemic Influenza
Caused by influenza viruses that are similar to those already circulating among people.	Caused by a new influenza virus that people have not been exposed to before. Likely to be more severe, affect more people, and cause more deaths than seasonal influenza because people will not have immunity to the new virus.
Symptoms include fever, headache, tiredness, dry cough, sore throat, runny nose, and muscle pain. Deaths can be caused by complications such as pneumonia.	Symptoms similar to the common flu but may be more severe with more serious complications.
Healthy adults usually not at risk for serious complications (the very young, the elderly, and those with certain underlying health conditions at increased risk for serious complications).	Healthy adults may be at increased risk for serious complications.
Every year in the United States, on average: ▪ 5% to 20% of the population gets the flu	The effects of a severe pandemic could be much more damaging than those of a regular flu season. It could lead to high levels of

MEDICAL EMERGENCY: PANDEMIC INFLUENZA

▪ More than 200,000 people are hospitalized from flu complications ▪ About 36,000 people die from flu	illness, death, social disruption, and economic loss. Everyday life could be disrupted because so many people in so many places become seriously ill at the same time. Impacts could range from school and business closings to the interruption of basic services such as public transportation and food delivery.

Issues associated with a pandemic can have far-reaching effects:

- **Development and distribution of vaccines to protect people from contracting the virus.** Because viruses change over time, a specific pandemic influenza vaccine cannot be produced until a pandemic influenza virus emerges and is identified. Once a pandemic influenza virus has been identified, it will likely take four to six months to develop, test, and begin producing a vaccine. As such, due to the rapid spread of an influenza pandemic and the time required to develop, test, produce, and distribute an effective vaccine, the disease will likely arrive in the United States before a "significant" number of people can be vaccinated. For this reason, any pandemic influenza preparation and response plan must include a mechanism for allocating the vaccine among the population. Note that after an individual has been infected by a virus, a vaccine generally cannot help to combat it.
- **Allocation of sparse healthcare resources.** There will be problems caused by shortages of medical supplies (e.g., vaccines and antiviral drugs), equipment (e.g., mechanical ventilators), hospital beds, and healthcare workers (HCW). Having a detailed system for allocating resources potentially can reduce such difficulties. This system ideally should be in place well before an influenza pandemic actually occurs. Also of particular concern is the real likelihood that healthcare systems, particularly hospitals, will be overwhelmed.
- **Societal disruption.** Institutions, such as schools and workplaces, may close because a large proportion of students or employees are ill. A large array of essential services may be limited because workers are off work due to pandemic influenza. Travel between cities and countries may be sharply reduced.

The following sections provide information on how to prevent and prepare before a pandemic influenza occurs, actions to take if one occurs, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

Multi-Agency Website

www.pandemicflu.gov

Centers for Disease Control and Prevention

Hotline 1-800-CDC-INFO (1-800-232-4636) available in English and Spanish, 24 hours a day, 7 days a week. TTY: 1-888-232-6348.

Prepare – Before a Pandemic

When a pandemic starts, everyone around the world could be at risk. The United States has been working closely with other countries and the World Health

MEDICAL EMERGENCY: PANDEMIC INFLUENZA

Organization (WHO) to strengthen systems to detect outbreaks of influenza that might cause a pandemic.

A pandemic would touch every aspect of society, so every part of society must begin to prepare. All have roles in the event of a pandemic. Federal, State, tribal, and local governments are developing, improving, and testing their plans for an influenza pandemic. Businesses, schools, universities, and other faith-based and community organizations are also preparing plans.

When planning and preparing for the next influenza pandemic, the following should be considered:

- Essential services including those provided by hospitals and other healthcare facilities, banks, restaurants, government offices, telephone and cellular phone companies, and post offices may be disrupted.
- Stores may close or have limited supplies of food and water. To prepare for this possibility you should store at least one to two weeks supply of non-perishable food and fresh water for emergencies.
- Transportation services may be disrupted and you may not be able to rely on public transportation.
- Public gatherings, such as volunteer meetings and worship services, may be canceled. Prepare contact lists including conference calls, telephone chains, and email distribution lists, to access or distribute necessary information.
- Consider that the ability to travel, even by car if there are fuel shortages, may be limited.
- In the event that local ATMs and banks are shut down, keep a small amount of cash or traveler's checks in small denominations for easy use.
- Being able to work may be difficult or impossible. Determine availability of leave to care for yourself or a family member and whether telecommuting can be implemented. Plan for possible loss of income if you are unable to work or your place of work temporarily closes.
- Schools, and potentially public and private preschool, childcare, trade schools, and colleges and universities may be closed to limit the spread of flu in the community and to help prevent children from becoming sick. Other school-related activities and services could also be disrupted or canceled. School closings would likely happen very early in a pandemic and could occur on short notice.
- Medical care for people with chronic conditions such as heart disease, high blood pressure, diabetes, asthma, or depression could be disrupted. Continue taking medication as prescribed by your doctor and make sure you have necessary medical supplies
- Ensuring that healthcare workers are adequately protected through vaccination if a vaccine is available; or making sure that antiviral drugs are available to ensure the health and safety of healthcare workers so that they can care for potential surges in influenza patients during a pandemic event.

These steps may help prevent the spread of respiratory illnesses such as the influenza virus:

- Cover your nose and mouth with a tissue when you cough or sneeze, and throw the tissue away immediately after you use it.
- Wash your hands often with soap and water, especially after you cough or sneeze. If you are not near water, use an alcohol-based (60-95%) hand cleaner.
- Avoid close contact with people who are sick. When you are sick, keep your distance from others to protect them from getting sick as well.

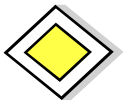
MEDICAL EMERGENCY: PANDEMIC INFLUENZA

- If you get the flu, stay home from work, school, and social gatherings. In this way, you will help prevent others from catching your illness.
- Try not to touch your eyes, nose, or mouth. Germs often spread this way.

Respond – During a Pandemic

In the event of a pandemic influenza outbreak, the goal of response measures is to ensure timely recovery of the ill and prevent any further spread of the disease. At the individual level, you should:

- Stay home if you are ill unless medical attention is required, practice hand hygiene/cough etiquette, and model behavior for your children.
- Consider voluntary home quarantine if anyone is ill in the household.
- Identify trusted sources for information; stay informed about availability/use of antiviral medications/vaccines.
- Use Personal Protective Equipment (PPE) if necessary and practice individual protection strategies.
- Practice social distance by avoiding crowded social environments and limit non-essential travels.
- In the workplace, ensure that sufficient infection control supplies are available.
- Modify face-to-face contact; implement flexible worksite (telework) policies and flexible work hours (staggered shifts) if appropriate.



Recover – After a Pandemic

Recovery efforts after a pandemic influenza outbreak are similar to some of the response measures; in addition to ensuring the timely recovery of the ill and limiting further spread of the disease, other goals during the recovery phase should include resuming normal activities and preparing for possible subsequent outbreak waves. Actions to consider may include:

- Continue to practice voluntary home quarantine, social distancing, hand hygiene, and cough etiquette.
- Continue to stay informed about pandemic influenza related activities as implemented by CDC or State and local health departments.
- Ensure that adequate resources/supplies are available to respond to the next pandemic wave.

MISSING CHILD: CODE ADAM ALERT

General Information

If a child is missing inside a facility, the Code Adam Alert Program provides a structured approach to response. Code Adam was created and named in memory of 6-year-old Adam Walsh. In 1981, Adam was abducted from a Florida shopping mall and later found murdered. This incident brought national attention to the horror of child abduction. Since the beginning of the Code Adam program in 1994, it has been a powerful search tool for lost and possibly abducted children in tens of thousands of establishments across the nation, and it is one of the country's largest child-safety programs.

On April 20, 2003, the "Code Adam Act of 2003" became law. It requires that the designated authority for a public facility establish procedures for a child missing in that facility. The following sections provide information on how to prepare before a child is reported missing, actions to take during a Code Adam Alert, and suggestions on how to recover from an alert. Actions are based on recommendations from the National Center for Missing and Exploited Children:

http://www.missingkids.com/missingkids/servlet/ServiceServlet?LanguageCountry=en_US&PageId=588

Prepare – Before a Child Is Reported Missing

Each facility should have the following in place prior to a missing child incident:

- A Code Adam decal posted at a facility's entrance alerting the public to the location's participation in the program.
- Procedures developed and included in the OEP and security guard post orders.
- Contact location or main staging area designated where the parent, guardian, or responsible party for the missing child would meet.
- Checklist prepared and distributed to gather a detailed description of the child.

Respond – During a Code Adam Alert

Take the following actions when a child is missing inside a facility:

Step 1 – Obtain a detailed description of the child.

- At a minimum, the description should include name, race, gender, age, eye color, hair color, approximate height, weight, any identifying marks, description of clothing to include shoe color and style, time the child was last seen, and last known location. Note: A child's clothes may be changed, but an abductor does not usually remove or change shoes.
- Direct or take parent/guardian/responsible party to a predetermined contact location/main staging area. This will allow for easy access to the person in case further information is needed.

Step 2 – Report the information to entrance control posts immediately by issuing a Code Adam Alert for the building/location.

- Pass description information to entrance control posts.
- If available, use a Public Address (PA) system to broadcast an announcement that a Code Adam Alert is in full effect so that tenants are alerted to look for the missing child.

MISSING CHILD: CODE ADAM ALERT

- Establish a central command location to which all designated personnel can report and coordinate their efforts with all responding personnel. This would include notifying an FPS Megacenter by dialing 1-877-437-7411, that a Code Adam Alert has been initiated.

Step 3 – Conduct a thorough search of the building.

- All available designated personnel should assist in search efforts.
- If a CCTV system is in place, monitor it closely for the missing child.
- If the CCTV system has capabilities of viewing without interrupting ongoing recording, review the video to identify the last time the child was seen.
- All access control points should continue to control/monitor building access, as well as monitor all people leaving the building.
- Use any personnel identified in the building's OEP to assist with the search.
- Building tenants/employees should use caution if it is decided to question a person with a child.
- Search all potential hiding places, offices, common areas, and exterior areas of the property.
- Positively identify all children located in the building.

Step 4 – Document the Incident.

- Notify all personnel to maintain documentation regarding the incident.
- An on-site coordinator (Designated Official or Incident Command) should collect, track, and document areas that have been searched and cleared.

Step 5 – Terminate the Alert.

- Terminate the Code Adam Alert when a parent or guardian positively identifies the child and the child's safety/well-being has been established.
- If the child is found unharmed, appears to have been lost, and no criminal activity has occurred, reunite the child with his or her parent or guardian.
- The Designated Official or Incident Command will conclude the incident by announcing that the Code Adam Alert is canceled by any available means of dissemination.
- Contact local law enforcement authorities when:
    - A Code Adam Alert renders negative results (child not found).
    - Detailed information to sufficiently initiate a Code Amber Alert is obtained.

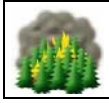
Recover – After a Code Adam Alert

After a Code Adam alert, there should be an evaluation of the efficiency of the response to identify and address any possible improvements to procedures.

NATURAL HAZARD OR DISASTER

General Information

The following sections discuss a number of natural hazards and potential disasters facing the Nation:

	**Earthquakes** have a high potential for causing catastrophic casualties, property damage, and economic disruption.
	**Landslides** affect every State, causing $3.5 billion dollars annually in damages and between 25 and 50 deaths
	**Severe Weather**
	**Floods** contribute to over 75 percent of declared Federal disasters.
	**Hurricanes** can affect more than half of the U.S. population that lives within 50 miles of a coast.
	**Severe Thunderstorms** produce tornadoes, winds of at least 58 mph (50 knots), and/or hail at least ¾" in diameter.
	**Tornadoes** appear as rotating, funnel-shaped clouds that extend from a thunderstorm to the ground with whirling winds that can reach 300 miles per hour and damage paths in excess of one mile wide and 50 miles long.
	**Tsunamis** can threaten the West Coast, Hawaii, Alaska, and island territories in the Caribbean and the Pacific
	**Winter Storms** can last for several days and be accompanied by high winds, freezing rain or sleet, heavy snowfall, and cold temperatures.
	**Volcanoes** in the United States (e.g., 169 active) are capable of producing a wide range of hazards that threaten people and infrastructure on the ground as well as aircraft in flight.
	**Wildfires** burn millions of acres in 40 States.

EARTHQUAKE

General Information

An earthquake can strike suddenly, violently, and without warning, at any time of the day or night, and in many parts of the country. If an earthquake occurs in a populated area, it may cause many deaths and injuries and extensive property damage. Although there are no guarantees of safety during an earthquake, advance planning can save lives and significantly reduce injuries and property damage.

The following sections provide information on how to prepare before an earthquake; actions to take during an earthquake, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

United States Geological Survey

http://earthquake.usgs.gov/learning/index.php

http://quake.wr.usgs.gov/

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/hazard/earthquake/index.shtm

http://www.fema.gov/areyouready/earthquakes.shtm

http://www.fema.gov/plan/prevent/howto/index.shtm#content

Ready.gov

http://www.ready.gov/america/beinformed/earthquakes.html

American Red Cross

http://www.redcross.org/services/disaster/0,1082,0_583_,00.html

Prepare – Before an Earthquake

The most important time for earthquake planning is during facility site selection and determination of construction standards. Planning from the ground up is, however, rarely an option available to the facility. As a result, emergency planners must provide effective reaction to a threat with rapid onset and an intensity that cannot be mitigated once underway.

Earthquake emergency plans may need to be prepared for facilities located in certain seismic risk zones as defined by the U.S. Geological Survey. For other facilities, a review of historical data and advice from local authorities will be helpful in making a determination of the need for earthquake emergency plans. Local authorities can also be contacted to obtain training and guidelines for earthquake emergency response.

The following are suggested actions to take to prepare before an earthquake occurs:

- Repair defective electrical wiring, leaky gas lines, and inflexible utility connections.
- Bolt down and secure large appliances to wall studs. Consider having an automatic gas shut-off valve installed that is triggered by strong vibrations.
- Place large or heavy objects on lower shelves. Fasten shelves, mirrors, and large picture frames to walls. Brace high and top-heavy objects.
- Store breakables on low shelves or in cabinets that fasten shut.

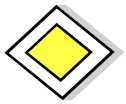
EARTHQUAKE

- Anchor overhead lighting fixtures.
- Be sure the facility is firmly anchored to its foundation.
- Install flexible pipefittings to avoid gas or water leaks. Flexible fittings are more resistant to breakage.
- Locate safe spots in each room under a sturdy table or against an inside wall. Reinforce this information by moving to these places during each drill.
- Hold earthquake drills: Drop, cover, and hold on!

Respond – During an Earthquake

During an earthquake, occupants should be alert to possible hazardous conditions. Suggested actions to take during an earthquake include:

- Remain calm.
- Move away from loose objects, windows, high shelving, and outside doors.
- Take cover underneath a desk, table, or other heavy piece of furniture.
- If there is no furniture around, brace yourself under an inside doorway.
- Be prepared for after shocks.



Recover – After an Earthquake

The amount of damage that can occur as a result of an earthquake depends on the severity of the earthquake and the stability of the structures involved. An earthquake can cause a slight movement of the ground and/or building or result in a major catastrophe.

Suggested actions to take after an earthquake has subsided include:

- Wait for emergency announcements/instructions.
- Check yourself for injuries before helping others who are disabled, injured, or trapped. Do not move seriously injured people unless they are in immediate danger of further injury.
- Do not leave the protected area unless other immediate hazards (such as fire) emerge.
- Look for and extinguish small fires.
- Clean up spilled medicines, bleaches, gasoline, or other flammable liquids immediately.
- Open closet and cabinet doors cautiously because contents may have shifted during the earthquake and could fall out.
- Use the telephone only to report life-threatening emergencies.
- Listen to a portable, battery-operated radio (or television) for updated emergency information and instructions.
- Expect aftershocks. Each time you feel one, drop, cover, and hold on!
- Inspect the facility for damage. If the facility has experienced damage, it may be necessary to evacuate before aftershocks happen.
- Leave the gas on at the main valve, unless you smell gas or think that gas is leaking. It may be weeks or months before professionals can turn gas back on using the correct procedures.

EARTHQUAKE

- If you are away from the facility, return only when authorities say it is safe. Watch out for fallen power lines or broken gas lines, and stay out of damaged areas.
- Be aware of possible tsunamis if you live in coastal areas.

LANDSLIDE OR DEBRIS FLOW

General Information

In a **landslide**, masses of rock, earth, or debris move down a slope. These masses may be small or large, slow or rapid. Landslides occur in mountainous regions and in other areas due to roadway and building excavations and fills, river bluff failures, collapse of mine waste piles, and slope failure associates with quarries and open pit mines.

Landslides commonly occur in connection with other major natural disasters such as earthquakes, volcanoes, wildfires, and floods. They are activated by the following primary events: storms, earthquakes, volcanic eruptions, fires, alternate freezing or thawing, and steepening of slopes by erosion or human modification. **Debris flows and mudflows** are types of landslides where rivers of rock, earth, and other debris saturated with water. They develop when water rapidly accumulates in the ground, during heavy rainfall or rapid snowmelt, changing the earth into a flowing river of mud or "slurry."

Landslides constitute a major geologic hazard because they are widespread, occur in all 50 states and U.S. territories, and cause $1-2 billion in damages and more than 25 fatalities on average each year. As a result of expansion of urban and recreational developments into hillside areas, landslides threaten more and more people each year.

The following sections provide information on how to prepare before a landslide or debris flow, actions to take during a landslide or debris flow, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

United States Geological Survey

http://landslides.usgs.gov/

http://www.usgs.gov/hazards/landslides/

Prepare – Before a Landslide or Debris Flow

The following are suggested actions to take to prepare before a landslide or debris flow occurs:

- Determine the risk of landslides in the vicinity of the facility. Contact local officials, state geological surveys or departments of natural resources, and university departments of geology. Ask for information on landslides in your area and specific information on areas vulnerable to landslides, request a professional referral for a very detailed site analysis of your property, and review corrective measures you can take, if necessary.
  - Areas that are generally prone to landslide hazards include:
    - On existing old landslides.
    - On or at the base of slopes.
    - In or at the base of minor drainage hollows.
    - At the base or top of an old fill slope or steep cut slope.
    - On developed hillsides where leach field septic systems are used.
  - Areas that are typically considered safe from landslides include:
    - On hard, non-jointed bedrock that has not moved in the past.
    - On relatively flat-lying areas away from sudden changes in slope angle.

LANDSLIDE OR DEBRIS FLOW

  - At the top or along the nose of ridges, set back from the tops of slopes.

- Be able to identify landslide warning signs, which include:
  - Springs, seeps, or saturated ground in areas that have not typically been wet before.
  - The appearance of slowly developing, widening cracks or unusual bulges on the ground or on paved areas such as streets, driveways, or sidewalks,
  - New cracks appearing in plaster, tile, brick, or foundations.
  - Outside walls, walks, or stairs begin pulling away from the facility. Soil moving away from the foundation.
  - Sticking doors and windows, and visible open spaces indicating jambs and frames out of plumb.
  - Broken water lines and other underground utilities.
  - Leaning utility poles, trees, retaining walls, or fences.
  - A faint rumbling sound that increases in volume; the sounds of trees cracking or boulders knocking together.

Respond – During a Landslide or Debris Flow

During a landslide or debris flow, occupants should be alert to possible hazardous conditions. Suggested actions to take during a landslide or debris flow include:

- Stay alert. Listen to a portable battery-powered radio or television for warnings of intense rainfall. Intense, short bursts of rain may be particularly dangerous, especially after longer periods of heavy rainfall and damp weather.
- Consider evacuating the facility if it is safe to do so. Staying out of the path of a landslide or debris flow saves lives.
- Listen for any unusual sounds that might indicate moving debris, such as trees cracking or boulders knocking together. A trickle of flowing or falling mud or debris may precede larger landslides. Moving debris can flow quickly and sometimes without warning.
- If the facility is located near a stream or channel, be alert for any sudden increase or decrease in water flow and for a change from clear to muddy water. Such changes may indicate landslide activity upstream, so be prepared to move quickly.

Recover – After a Landslide or Debris Flow

Suggested actions to take after a landslide or debris flow has subsided include:

- Wait for emergency announcements/instructions.
- Check yourself for injuries before helping others who are disabled, injured, or trapped. Do not move seriously injured people unless they are in immediate danger of further injury.
- Watch for flooding, which may occur after a landslide or debris flow.
- Stay away from the slide area. There may be danger of additional slides.
- Look for and report broken utility lines and damaged roadways and railways to appropriate authorities.

LANDSLIDE OR DEBRIS FLOW

- Check the building foundation and surrounding land for damage.
- Replant damaged ground as soon as possible since erosion caused by loss of ground cover can lead to flash flooding and additional landslides in the near future.

SEVERE WEATHER

General Information

Severe weather conditions can affect all facilities through minor disruption of operations or life threatening events capable of destroying entire facilities. Procedures must be developed based on the type(s) of severe weather most likely to cause the threatening conditions or disruption of operations in the region where the facility is located. Local weather services can be contacted to obtain information about the conditions most likely to occur in the region where the facility is located. Types of severe weather discussed in this section include:


Flood


Tornado


Hurricane


Tsunami


Severe Thunderstorm


Winter Storm

The following sections provide information on how to prepare before a severe weather, actions to take during severe weather, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

National Oceanic and Atmospheric Administration

(NOAA) Storm Prediction Center

http://www.spc.noaa.gov/products/outlook/

http://www.stormready.noaa.gov/awareness.htm

TIP
Severe weather procedures should have provisions for advising occupants of a facility closing in the event that adverse conditions develop before working hours. In large facilities, the use of local radio stations should be considered as a means of notification.

Prepare – Before Severe Weather Occurs

Warnings for severe weather are broadcast by radio, television, and local government agencies. Floor monitors could be activated to monitor for conditions that may become serious or life threatening and then follow procedures for that particular condition. The following are suggested actions to take to prepare before severe weather occurs:

- Move computers away from the windows if there is a chance of window damage.
- Close windows and blinds.
- Unplug nonessential equipment.
- Move unsecured signs, equipment, furniture, etc., inside and/or secure loose items.
- Close all fire doors.

SEVERE WEATHER

Respond – During Severe Weather

During severe weather, occupants should be alert to possible hazardous conditions. Suggested actions to take during severe weather include:

- Watch for downed power lines.
- Be aware of wind-driven debris and falling tree limbs.
- Stay away from windows.
- Avoid leaving the facility.
- Minimize the use of telephones.

TIP
Partial or complete evacuation may be necessary depending on extent of damage to the facility.

Recover – After Severe Weather Subsides

Suggested actions to take after severe weather has subsided include:

- Wait for emergency announcements/instructions.
- Do not attempt to move or fix anything until a full damage assessment is completed
- Check interior of facility for broken windows and water damage.
- Check yourself for injuries before helping others who are disabled, injured or trapped. Do not move seriously injured people unless they are in immediate danger of further injury.

SEVERE WEATHER: FLOOD

General Information

Flooding can occur in any of the 50 states or U.S. territories at any time of the year with impacts that vary locally. A flood occurs when prolonged rainfall over several days, intense rainfall over a short period of time, or an ice or debris jam causes a river or stream to overflow and flood the surrounding area. Melting snow can combine with rain in the winter and early spring; severe thunderstorms can bring heavy rain in the spring and summer; or tropical cyclones can bring intense rainfall to the coastal and inland states in the summer and fall.

As its name suggests, a flash flood can catch people unprepared. These floods occur within six hours of a rain event, or after a dam or levee failure, or following a sudden release of water held by an ice or debris jam. You will not always have a warning that these deadly, sudden floods are coming. So, if the facility is located in areas prone to flash floods, advance planning to protect occupants and property is prudent.

Once a river reaches flood stage, flood severity categories are used to categorize the threat to property and the public. These categories include:

- **Minor Flooding –** minimal or no property damage, but possibly some public threat or inconvenience
- **Moderate Flooding –** some inundation of structures and roads near streams. Some evacuations of people and/or transfer of property to higher elevations are necessary.
- **Major Flooding –** extensive inundation of structures and roads. Significant evacuations of people and/or transfer of property to higher elevations.

The following sections provide information on how to prepare before a flood, actions to take during a flood, and suggestions on how to safely recover from a flood afterward. Actions are based on a compilation of recommendations from the following references:

Centers for Disease Control

http://www.bt.cdc.gov/disasters/floods/

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/areyouready/flood.shtm

http://www.fema.gov/plan/prevent/howto/index.shtm#content

Ready.gov

http://www.ready.gov/america/beinformed/floods.html

American Red Cross

http://www.redcross.org/services/prepare/0,1082,0_240_,00.html

National Oceanic and Atmospheric Administration

http://www.weather.gov/floodsafety/

SEVERE WEATHER: FLOOD

Prepare – Before a Flood Occurs

Before beginning to prepare for a possible flood event, determine the area's flood risk. If the facility is not located in an area that is at high risk for flooding, preparations can be adjusted accordingly. The following are suggested actions to take to prepare before a flood occurs:

- Reduce potential damage by moving materials, equipment, and other assets from areas of the facility that may be flooded. As part of continuity of operations planning, facilities may also have alternate locations where information is backed up and operations can resume if evacuation from the primary facility is necessary.
- Assemble facility emergency supplies and equipment. In addition to what the facility provides, individual occupants should assemble a person kit that may include:
  - First aid kit and essential medications.
  - Canned food and can opener.
  - At least three gallons of water per person.
  - Protective clothing, rainwear, and bedding or sleeping bags.
  - Battery-powered radio, flashlight, and extra batteries.
- If it has been raining hard for several hours, or steadily raining for several days, be alert to the possibility of a flood.
- Listen to local radio or TV stations for flood information.
- Determine risk to the facility from a dam failure.

Respond – During a Flood Watch or Warning

Floods can take several hours to days to develop, but flash floods can take only a few minutes to a few hours.

- A ***flood watch*** is issued when a flood is *possible* in the specified area. A ***flood warning*** is issued when flooding is already occurring or will occur soon in the specified area. Listen to local radio and TV stations for information and advice. If told to evacuate, do so as soon as possible.
- A ***flash flood watch*** is issued when flash flooding is *possible* in the specified area. Be alert to signs of flash flooding and be ready to evacuate on a moment's notice.
- A ***flash flood warning*** is issued when flooding is already occurring or will occur soon in the specified area. If you think it has already started, evacuate immediately. You may have only seconds to escape. Act quickly!

Recover – After a Flood Occurs

Suggested actions to take after a flood has occurred include:

- Identify and throw away food that may have come in contact with flood or storm water.
- Seek prompt medical attention if you suspect carbon monoxide poisoning and are feeling dizzy, light-headed, or nauseated.

SEVERE WEATHER: FLOOD

- Stay away from damaged buildings or structures until they have been examined and certified as safe by a building inspector or other government authority. Leave immediately if you hear shifting or unusual noises that signal that the structure is about to fall.
- If electrical circuits and equipment have gotten wet or are in or near water, turn off the power at the main breaker or fuse on the service panel. Do not turn the power back on until electrical equipment has been inspected by a qualified electrician.
- Clean up and dry out the building quickly (within 24 to 48 hours) to prevent mold growth.
- Be alert to physical and emotional exhaustion or strain. Set priorities for cleanup tasks, and pace the work. Try not to work alone. Don't get exhausted.
- When it's hot, stay in air-conditioned buildings; take breaks in shaded areas or in cool rooms; drink water and nonalcoholic fluids often; wear lightweight, light-colored, loose-fitting clothing; and do outdoor activities during cooler hours.
- Clean out all open wounds and cuts with soap and clean water. Apply an antibiotic ointment. Contact a doctor to find out whether more treatment is needed (such as a tetanus shot). If a wound gets red, swells, or drains, seek immediate medical attention.
- Use soap and water to wash your hands. If water isn't available, use alcohol-based products made for washing hands.

SEVERE WEATHER: HURRICANE

General Information

A hurricane is a severe tropical storm that forms in warm tropical oceans with moisture and winds rotating in a counterclockwise direction around a calm "eye." A tropical storm becomes a hurricane when winds reach 74 miles per hour. On average, six Atlantic hurricanes occur each year; over a three-year period, approximately five hurricanes strike the United States coastline from Texas to Maine. The Atlantic hurricane season begins June 1 and ends November 30. If the right conditions last long enough, a hurricane can produce a number of hazards including:

- **Storm surge** is a large dome of water often 50 to 100 miles wide that sweeps across the coastline near where a hurricane makes landfall. The stronger the hurricane and the shallower the offshore water, the higher the surge will be. Along the immediate coast, storm surge is the greatest threat to life and property.
- **Storm tide** is the combination of the storm surge and the astronomical tide. If the storm surge arrives at high tide, the water height will be even greater. This mound of water, topped by battering waves, moves ashore along an area of the coastline as much as 100 miles wide. The combination of the storm surge, battering waves, and high winds can cause great property damage.
- **Hurricane-force winds**, 74 mph or more, can destroy buildings. Debris, such as signs, roofing material, siding, and small items left outside, become flying missiles in hurricanes. Winds can stay above hurricane strength well inland.
- **Tornadoes** most often occur in thunderstorms embedded in rain bands well away from the center of the hurricane; however, they can also occur near the eye wall.
- **Inland/Freshwater Flooding**. Flash flooding, a rapid rise in water levels, can occur quickly due to intense rainfall. Longer-term flooding on rivers and streams can persist for several days after the storm. Slower-moving storms produce more rainfall. Inland flooding can be a major threat to people hundreds of miles from the coast.

Hurricane Awareness Week

The National Weather Service (NWS) sponsors a Hurricane Awareness Week before each hurricane season. For dates and activities, listen to NOAA Weather Radio and check NWS Web sites and local media.

The following sections provide information on how to prepare before a hurricane, actions to take during a hurricane, and suggestions on how to safely recover from a hurricane after it has occurred. Actions are based on a compilation of recommendations from the following references:

National Oceanographic and Atmospheric Administration: National Hurricane Center

http://www.nhc.noaa.gov/

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/hazard/hurricane/index.shtm

http://www.fema.gov/plan/prevent/howto/index.shtm#content

Ready.gov

http://www.ready.gov/america/beinformed/hurricanes.html

American Red Cross

http://www.redcross.org/general/0,1082,0_587_,00.html

SEVERE WEATHER: HURRICANE

Prepare – Before Hurricane Season

Long before hurricane season begins, actions can be taken to reduce risk if a hurricane does threaten a facility. Mitigation actions should be based on the likelihood of a hurricane occurring in the area of the facility and potential hazards that result. The following are suggested actions to take before hurricane season:

- Learn safe routes inland.
- Find out where official shelters are located.
- Review working condition of emergency equipment, such as flashlights and battery-powered radios.
- Ensure that you have enough nonperishable food and water supplies on hand.
- Know your community safety plan.
- Make plans to secure the facility. Permanent storm shutters offer the best protection for windows. A second option is to board up windows with 5/8" marine plywood, cut to fit and ready to install. Tape does not prevent windows from breaking. Install straps or additional clips to securely fasten the roof to the frame structure.
- Make trees more wind resistant by removing diseased and damaged limbs, as well as strategically removing branches so that wind can blow through the tree limbs.

Respond – During a Hurricane Watch or Warning

A hurricane ***watch*** is issued when hurricane conditions are *possible* in the specified area, usually within 36 hours. The following are suggested actions to take if a hurricane ***watch*** is issued:

- Listen to local radio or TV stations for up-to-date storm information.
- Prepare to bring inside any lawn furniture, outdoor decorations or ornaments, trashcans, hanging plants, and anything else that can be picked up by the wind.
- Prepare to secure the facility.
- Check batteries and stock up on canned food, first aid supplies, drinking water, and medications.

A hurricane ***warning*** is issued when hurricane conditions are *expected* in the specified area, usually within 24 hours. The following are suggested actions to take if a hurricane ***warning*** is issued:

- Listen to the advice of local officials, and leave if they tell you to do so.
- Complete preparation activities.
- If you are not advised to evacuate:
    - Stay indoors, away from windows
    - Close all interior doors – secure and brace external doors.
    - Keep curtains and blinds closed. Do not be fooled if there is a lull; it could be the eye of the storm, in which case winds will pick up again.
    - Take refuge in a small interior room, closet, or hallway on the lowest level.

SEVERE WEATHER: HURRICANE

  - Lie on the floor under a table or another sturdy object.

- Be aware that the calm "eye" is deceptive; the storm is not over. The worst part of the storm will happen once the eye passes over and the winds blow from the opposite direction. Trees, shrubs, buildings, and other objects damaged by the first winds can be broken or destroyed by the second winds.
- Be alert for tornadoes. Tornadoes can happen during a hurricane and after it passes over. Remain indoors, in the center of the facility in a room without windows.
- Be prepared to evacuate if the facility designated official or local authorities direct you to do so. Be sure to follow their instructions.

Recover – After a Hurricane

Conditions within and surrounding a facility after a hurricane strikes depend on many factors including the strength of the hurricane, location of the facility in its path, construction of the facility, etc. As such, extreme caution should be exercised. The following are suggested actions to take after a hurricane:

- Wait for emergency announcements/instructions.
- Do not attempt to move or fix anything until a full damage assessment is completed.
- Check interior of facility for broken windows and water damage.
- If you have been evacuated, return only when local officials tell you it is safe to do so.
- Stay away from standing water. It may be electrically charged from underground or downed power lines.
- Have professionals check gas, water, and electrical lines and appliances for damage.
- Use the telephone only for emergency calls.
- Check yourself for injuries before helping others who are disabled, injured or trapped. Do not move seriously injured people unless they are in immediate danger of further injury.

SEVERE WEATHER: SEVERE THUNDERSTORM

General Information

The typical thunderstorm is 15 miles in diameter and lasts an average of 30 minutes. Despite their small size, all thunderstorms are dangerous. Of the estimated 100,000 thunderstorms that occur each year in the United States, about 10 percent are classified as severe.

The National Weather Service considers a thunderstorm severe if it produces a tornado, winds of at least 58 mph (50 knots), and/or hail at least ¾" in diameter. A thunderstorm wind equal to or greater than 40 mph (35 knots) and/or hail of at least ½" is defined as approaching severe.

A number of hazards can accompany a severe thunderstorm:

- **Lightning's** risk to individuals and property is increased because of its unpredictability. It often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall. Most lightning deaths and injuries occur when people are caught outdoors in the summer months during the afternoon and evening. "Heat lightning" is a term used to describe lightning from a thunderstorm too far away for thunder to be heard.
- **Flash floods and floods** are the #1 cause of deaths associated with thunderstorms, more than 140 fatalities each year. Most flash flood fatalities occur at night and most victims are people who become trapped in automobiles. Six inches of fast-moving water can knock you off your feet; a depth of two feet will cause most vehicles to float.
- **Hail**. Strong rising currents of air within a storm, called updrafts, carry water droplets to a height where freezing occurs. Ice particles grow in size, becoming too heavy to be supported by the updraft, and fall to the ground. Hail can be smaller than a pea or as large as a softball, and it can be very destructive to plants and crops. Hail causes more than $1 billion in damage to property and crops each year. Large stones fall at speeds faster than 100 mph.
- **Downbursts and straight-line winds** are responsible for most thunderstorm wind damage. Winds can exceed 100 mph. One type of straight-line wind, the downburst, is a small area of rapidly descending air beneath a thunderstorm. A downburst can cause damage equivalent to a strong tornado and can be extremely dangerous to aviation. A "dry microburst" is a downburst that occurs with little or no rain. These destructive winds are most common in the western United States.
- **Tornadoes** appear as rotating, funnel-shaped clouds that extend from a thunderstorm to the ground with whirling winds that can reach 300 miles per hour.

The following sections provide information on how to prepare before a severe thunderstorm, actions to take during a severe thunderstorm, and suggestions on how to safely recover from a severe thunderstorm after it has occurred. Actions are based on a compilation of recommendations from the following references:

National Oceanographic and Atmospheric Administration: National Weather Service

www.nws.noaa.gov/om/brochures.shtml

Department of Homeland Security

Federal Emergency Management Agency

www.fema.gov/library/prepandprev.shtm

http://www.fema.gov/plan/prevent/howto/index.shtm#content

SEVERE WEATHER: SEVERE THUNDERSTORM

Ready.gov

http://www.ready.gov/america/beinformed/thunderstorms.html

American Red Cross

www.redcross.org/services/disaster/keepsafe/

Prepare – Before a Severe Thunderstorm

Familiarize yourself with the terms that are used to identify a thunderstorm hazard, including understanding the difference between a severe thunderstorm watch and a severe thunderstorm warning. The following are suggested actions to take before a severe thunderstorm:

- Take time to learn about the severe thunderstorm risk in your area – including whether and how often they are accompanied by tornadoes.
- Pay attention to warnings. Listen to local radio or television newscasts for emergency broadcasts and learn the community's warning system.
- Know the warning signs of a thunderstorm, such as dark, towering, or threatening clouds.
- Remove dead or rotting trees and branches that can fall during a severe thunderstorm and cause injury and damage.
- Identify a safe place to take shelter.
- Have frequent drills.

Respond – During a Severe Thunderstorm Watch or Warning

A ***severe thunderstorm watch*** is issued when and where severe thunderstorms are likely to occur. The following are suggested actions to take if a ***severe thunderstorm watch*** is issued:

- Listen to commercial radio or television newscasts for the latest information.
- Secure outdoor objects that could blow away or cause damage.
- Shutter windows and secure outside doors. If shutters are not available, close window blinds, shades, or curtains.
- Postpone outdoor activities if severe thunderstorms are imminent.
- Do not use electrical items such as computers or television sets because power surges from lightning can cause serious damage.

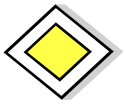
A ***severe thunderstorm warning*** is issued when severe weather has been reported by spotters or indicated by radar. Warnings indicate imminent danger to life and property to those in the path of the storm. The following are suggested actions to take if a ***severe thunderstorm warning*** is issued:

30/30 Lightning Safety Rule
Go indoors if, after seeing lightning, you cannot count to 30 before hearing thunder. Stay indoors for 30 minutes after hearing the last clap of thunder.

- Keep an eye on the sky. Look for darkening skies, flashes of light, or increasing wind. Listen for the sound of thunder. If you can hear thunder, you are close enough to be struck by lightning.

SEVERE WEATHER: SEVERE THUNDERSTORM

- Go quickly inside a home, building, or hard top automobile, if possible.
- In a hailstorm, take cover immediately.
- A corded telephone should only be used in an emergency, but cordless phones and cell phones are safe to use.
- Avoid taking a bath or shower, and avoid running water for any other purpose.
- Draw blinds and shades over windows. If windows break due to objects blown by the wind, the shades will prevent glass from shattering into the facility.
- Turn off air conditioners. Power surges from lightning can cause serious damage.
- If you feel your skin tingle or your hair stand on end, squat low to the ground on the balls of your feet. Place your hands over your ears and your head between your knees. Make yourself the smallest target possible and minimize your contact with the ground. Do not lie down.
- A person who has been struck by lightning does not carry an electrical charge that can shock other people. If the victim is burned, provide first aid and contact emergency medical assistance immediately. Look for burns where lightning entered and exited the body. If the strike causes the victim's heart and breathing to stop, give cardiopulmonary resuscitation (CPR) until medical professionals arrive and take over.



Recover – After a Severe Thunderstorm

The following are suggested actions to take after a severe thunderstorm:

- Wait for emergency announcements/instructions.
- Use the telephone only for emergency calls.
- Check yourself for injuries before helping others who are disabled, injured or trapped. Do not move seriously injured people unless they are in immediate danger of further injury.
- Do not attempt to move or fix anything until a full damage assessment is completed.
- Check interior of facility for broken windows and water damage.
- If you have been evacuated, return only when local officials tell you it is safe to do so.
- Stay away from storm-damaged areas.
- Stay away from standing water. It may be electrically charged from underground or downed power lines.

SEVERE WEATHER: TORNADO

General Information

Tornadoes are nature's most violent storms. Spawned from powerful thunderstorms, tornadoes appear as rotating, funnel-shaped clouds that extend from a thunderstorm to the ground with whirling winds that can reach 300 miles per hour. Damage paths can be in excess of one mile wide and 50 miles long. In an average year, 800 tornadoes are reported nationwide during the spring and summer months, resulting in 80 deaths and over 1,500 injuries.

Every state is at some risk from this hazard. In the southern states, peak tornado occurrence is in March through May, while peak months in the northern states are during the summer. In the western United States, tornadoes occur with cold late fall or late winter storms, during a time when you least expect tornado development.

Tornado Fast Facts

- Tornadoes are most likely to occur between 3 p.m. and 9 p.m. but can occur any time.
- The average tornado moves southwest to Northeast, but tornadoes have been known to move in any direction.
- The average forward speed is 30 mph, but may vary from stationary to 70 mph.
- Two or more may occur at the same time.
- They may strike quickly, with little or no warning.
- Before a tornado hits, the wind may die down and the air may become very still.
- Some tornadoes are clearly visible, while others are obscured.
- Waterspouts are weak tornadoes that form over warm water and occasionally move inland.

The following sections provide information on how to prepare before a tornado, actions to take during a tornado, and suggestions on how to safely recover from a tornado after it has occurred. Actions are based on a compilation of recommendations from the following references:

National Oceanographic and Atmospheric Administration

http://www.noaa.gov/tornadoes.html

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/hazard/tornado/index.shtm

http://www.fema.gov/plan/prevent/saferoom/index.shtm

http://www.fema.gov/plan/prevent/howto/index.shtm#content

Ready.gov

http://www.ready.gov/america/beinformed/tornadoes.html

American Red Cross

http://www.redcross.org/general/0,1082,0_248_4431,00.html

Prepare – Before Tornado Season

Occasionally, tornadoes develop so rapidly that advance warning is not possible. Remain alert for signs of an approaching tornado. The following are suggested actions to take before a tornado:

- Be alert to changing weather conditions.
- Have frequent drills.

SEVERE WEATHER: TORNADO

- Have a NOAA Weather Radio with a warning alarm tone and battery back-up to receive warnings.
- Listen to radio and television for information.
- If planning a trip outdoors, listen to the latest forecasts and take necessary action if threatening weather is possible.
- Consider establishing a safe room or wind shelter to provide a space where occupants can seek refuge that provides a high level of protection. Since wind hazards vary based on location, the decision to build a wind shelter is largely based on the magnitude of the wind hazard in a given area and on the level of risk considered acceptable.

Respond – During a Tornado Watch or Warning

When conditions are favorable for severe weather to develop, a severe thunderstorm or tornado watch is issued. Tornadoes occasionally develop in areas in which a severe thunderstorm watch or warning is in effect.

A ***tornado watch*** is issued when tornadoes are possible in the area. The following are suggested actions to take if a ***tornado watch*** is issued:

- Listen to NOAA Weather Radio or to commercial radio or television newscasts for the latest information.
- Look for approaching storms
- If you see approaching storms or any of the danger signs, be prepared to take shelter immediately.
- Flying debris from tornadoes causes most deaths and injuries.

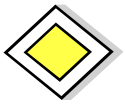
Tornado Danger signs:
- Dark, often greenish sky
- Large hail
- A large, dark, low-lying cloud (particularly if rotating)
- Loud roar, similar to a freight train

A ***tornado warning*** is issued when a tornado has been sighted or indicated by weather radar. The following are suggested actions to take if a ***tornado warning*** is issued:

- Seek shelter immediately!
- If you are in the facility, go to a pre-designated shelter area such as a safe room, basement, storm cellar, or the lowest building level.
- If there is no basement, go to the center of an interior room on the lowest level (closet, interior hallway) away from corners, windows, doors, and outside walls.
- Put as many walls as possible between you and the outside.
- Get under a sturdy table and use your arms to protect your head and neck.
- Do not open windows.
- If in an exterior office, leave it and close the door. If trapped in the exterior office, seek protection under a desk.
- Sit and protect yourself by putting your head as close to your knees as possible or kneel protecting your head.
- DO NOT use elevators or go to the first floor lobby or outside of the facility.

SEVERE WEATHER: TORNADO

- If you are outside with no shelter, lie flat in a nearby ditch or depression and cover your head with your hands. Be aware of the potential for flooding. Do not get under an overpass or bridge. You are safer in a low, flat location.
- If you have a radio or television, tune it to a local station for information.



Recover – After a Tornado

Recovering from a disaster is usually a gradual process. Safety is a primary issue, as are mental and physical well-being. If assistance is available, knowing how to access it makes the process faster and less stressful. Conditions within and surrounding a facility after a tornado strikes depend on many factors including the size of the tornado, location of the facility in its path, construction of the facility, etc. As such, extreme caution should be exercised. Injury may result from the direct impact of a tornado, or it may occur afterward when people walk among debris and enter damaged buildings. Nearly a third of the injuries result from stepping on nails. Other common causes of injury include falling objects and heavy, rolling objects. Because tornadoes often damage power lines, gas lines, or electrical systems, there is a risk of fire, electrocution, or an explosion. Protecting yourself and your family requires promptly treating any injuries suffered during the storm and using extreme care to avoid further hazards.

The following are suggested actions to take after a tornado:

- Continue listening to a NOAA Weather Radio, Coast Guard emergency frequency station, or other reliable source for emergency information.
- Wait for emergency announcements/instructions.
- Do not leave the protected area unless other immediate hazards (such as fire) emerge.
- Check yourself for injuries before helping others who are disabled, injured or trapped. Do not move seriously injured people unless they are in immediate danger of further injury.
- Use the telephone only for emergency calls.
- Use battery-powered lanterns or flashlights when examining buildings.
- Examine walls, floors, doors, staircases, and windows to make sure that the building is not in danger of collapsing. Watch for loose plaster, drywall, and ceilings that could fall.
- Look for fire hazards. There may be broken or leaking gas lines, flooded electrical circuits, or submerged furnaces or electrical appliances.
- Check for gas leaks. If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off the gas using the outside main valve if you can, and call the gas company from a neighbor's home.
- Look for electrical system damage. If you see sparks or broken or frayed wires, or if you smell burning insulation, turn off the electricity at the main fuse box or circuit breaker.
- Check for sewage and water line damage. If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap.
- Be aware of hazards from exposed nails and broken glass.
- Symptoms of anxiety may not appear for weeks or even months after a tornado; they can affect people of any age. If anxiety disrupts daily activities for any member of your family, seek professional assistance through a school counselor, community religious organization, your physician, or a licensed professional.

SEVERE WEATHER: TSUNAMI

General Information

Tsunamis are ocean waves most often generated by earthquake-induced movement of the ocean floor. Landslides, volcanic eruptions, and even meteorites can also generate a tsunami. If a major earthquake is felt, a tsunami could reach the beach in a few minutes, even before a warning is issued. All tsunamis are potentially dangerous, even though they may not damage every coastline they strike. Damaging tsunamis are very rare. Coastlines are vulnerable, but tsunamis are infrequent. Understand the hazard and learn how to protect yourself.

Areas at greatest risk are less than 25 feet above sea level and within one mile of the shoreline. Depending on a number of factors, some low-lying areas could experience severe inland inundation of water and debris of more than 1,000 feet. Most deaths caused by a tsunami are because of drowning. Associated risks include flooding, contamination of drinking water, fires from ruptured tanks or gas lines, and the loss of vital community infrastructure (police, fire, and medical facilities).

The following sections provide information on how to prepare before a tornado, actions to take during a tornado, and suggestions on how to safely recover from a tornado after it has occurred. Actions are based on a compilation of recommendations from the following references:

National Oceanographic and Atmospheric Administration

http://www.tsunami.noaa.gov/

http://www.tsunamiready.noaa.gov/

http://wcatwc.arh.noaa.gov/

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/hazard/tsunami/index.shtm

http://www.fema.gov/plan/prevent/howto/index.shtm#content

Ready.gov

http://www.ready.gov/america/beinformed/tsunamis.html

Centers for Disease Control

http://www.bt.cdc.gov/disasters/tsunamis/

American Red Cross

http://www.redcross.org/services/disaster/0,1082,0_592_,00.html

Prepare – Before a Tsunami

Preparing for a tsunami is important for areas that are at risk. Contact the local emergency management office to determine if the facility or other frequently visited locations are in tsunami hazard areas. The following are suggested actions to take before a tsunami:

- Know the height of the street above sea level and the distance of the street from the coast or other high-risk waters. Evacuation orders may be based on these numbers. It is important to know designated escape routes before a warning is issued.

SEVERE WEATHER: TSUNAMI

- Individuals in areas determined to be at risk from tsunamis should plan an evacuation route from the facility toward an area 100 feet above sea level or up to two miles inland, away from the coastline. Every foot inland or upwards may make a difference.
- Local emergency management officials can help advise you as to the best route to safety and likely shelter locations.
- Practice your evacuation route. Familiarity may save your life. Be able to follow your escape route at night and during inclement weather. Practicing your plan makes the appropriate response more of a reaction, requiring less thinking during an actual emergency situation.
- Use a NOAA Weather Radio with a tone-alert feature to stay informed of local watches and warnings. The tone alert feature will warn of potential danger even if the radio is not being used.
- Assemble a Disaster Supplies Kit.
- Follow flood preparedness precautions. Tsunamis are large amounts of water that crash onto the coastline, creating floods.
- Have an engineer check the facility and advise about ways to make it more resistant to tsunami water. There may be ways to divert waves away from the property.

Respond – During a Tsunami Watch or Warning

When a ***tsunami watch*** is issued, a tsunami was or may have been generated, but is at least two hours travel time to the area in watch status. The following are suggested actions to take if a ***tsunami watch*** is issued:

- Listen to a NOAA Weather Radio, Coast Guard emergency frequency station, or other reliable source for updated emergency information. Because the energy of a tsunami is transferred through open water, it is not detectable. Seismic action may be the only advance warning before the tsunami approaches the coastline.
- Check your Disaster Supplies Kit. Some supplies may need to be replaced or restocked.
- If you have special evacuation needs (small children, elderly people, or persons with disabilities) consider early evacuation.
- If time permits, secure unanchored objects around the facility. Tsunami waves can sweep away loose objects. Securing these items or moving them inside will reduce potential loss or damage.
- Be ready to evacuate. Being prepared will help you to move more quickly if a tsunami warning is issued.

When a ***tsunami warning*** is issued, a tsunami was or may have been generated, which could cause damage; therefore, people in the warned area are strongly advised to evacuate. The following are suggested actions to take if a ***tsunami warning*** is issued:

- Listen to a NOAA Weather Radio, Coast Guard emergency frequency station, or other reliable source for updated emergency information. Authorities will issue a warning only if they believe there is a real threat from tsunami.
- Follow instructions issued by local authorities. Recommended evacuation routes may be different from the one you use, or you may be advised to climb higher.
- If you are in a tsunami risk area, do the following:

SEVERE WEATHER: TSUNAMI

- If you hear an official tsunami warning or detect signs of a tsunami, evacuate at once. A tsunami warning is issued when authorities are certain that a tsunami threat exists, and there may be little time to get out.
- Take your Disaster Supplies Kit. Having supplies will make you more comfortable during the evacuation.
- Get to higher ground as far inland as possible. Officials cannot reliably predict either the height or local effects of tsunamis. Watching a tsunami from the beach or cliffs could put you in grave danger. If you can see the wave, you are too close to escape it.

Recover – After a Tsunami

Conditions within and surrounding a facility after a tsunami strikes depend on many factors including the strength of the earthquake that generated the tsunami, location of the facility in its path, construction of the facility, etc. As such, extreme caution should be exercised.

Immediate health concerns following a tsunami include:

- After the rescue of survivors, the primary public health concerns are clean drinking water, food, shelter, and medical care for injuries. Floodwaters can pose health risks such as contaminated water and food supplies.
- Loss of shelter leaves people vulnerable to insect exposure, heat, and other environmental hazards.
- The majority of deaths associated with tsunamis are related to drowning, but traumatic injuries are also a primary concern. Injuries such as broken limbs and head injuries are caused by the physical impact of people being washed into debris such as houses, trees, and other stationary items. As the water recedes, the strong suction of debris being pulled into large populated areas can further cause injuries and undermine buildings and services.
- Medical care is critical in areas where little medical care exists.

Secondary effects of a tsunami include:

- Natural disasters do not necessarily cause an increase in infectious disease outbreaks, but contaminated water and food supplies as well as the lack of shelter and medical care may have a secondary effect of worsening illnesses that already exist in the affected region.
- Decaying bodies create very little risk of major disease outbreaks.
- The people most at risk are those who handle the bodies or prepare them for burial.

The effects of a disaster may last months and even years. As a result, the need for financial and material assistance is greatest in the months after a disaster. Recovery needs include:

- Surveying and monitoring for infectious and water- or insect-transmitted diseases
- Diverting medical supplies from non-affected areas to meet the needs of the affected regions
- Restoring normal primary health services, water systems, housing, and employment
- Assisting the community to recover mentally and socially when the crisis has subsided.

The following are suggested actions to take after a tsunami:

- Continue listening to a NOAA Weather Radio, Coast Guard emergency frequency station, or other reliable source for emergency information. The tsunami may have damaged roads, bridges, or other places that may be unsafe.

SEVERE WEATHER: TSUNAMI

- Check yourself for injuries before helping others who are disabled, injured, or trapped. Do not move seriously injured people unless they are in immediate danger of further injury.
- After a disaster, roads may become impassable or blocked. Be prepared to evacuate by foot if necessary. Footpaths normally lead uphill and inland, while many roads parallel coastlines. Follow posted tsunami evacuation routes.
- Use the telephone only for emergency calls.
- Return to the facility only after local officials tell you it is safe. A tsunami is a series of waves that may continue for hours. Do not assume that after one wave the danger is over. The next wave may be larger than the first one.
- Stay out of the building if waters remain around it. Tsunami waters, like floodwaters, can undermine foundations, causing buildings to sink, floors to crack, or walls to collapse.
- Use battery-powered lanterns or flashlights when examining buildings. Battery-powered lighting is the safest and easiest, preventing fire hazard for the user, occupants, and building.
- Examine walls, floors, doors, staircases, and windows to make sure that the building is not in danger of collapsing.
- Inspect foundations for cracks or other damage. Cracks and damage to a foundation can render a building uninhabitable.
- Look for fire hazards. There may be broken or leaking gas lines, flooded electrical circuits, or submerged furnaces or electrical appliances.
- Check for gas leaks. If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off the gas using the outside main valve if you can, and call the gas company from a neighbor's home.
- Look for electrical system damage. If you see sparks or broken or frayed wires, or if you smell burning insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call an electrician first for advice. Electrical equipment should be checked and dried before being returned to service.
- Check for sewage and water line damage. If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap. You can obtain safe water from undamaged water heaters or by melting ice cubes.
- Use tap water if local health officials advise that it is safe.
- Watch out for animals, especially poisonous snakes that may have come into buildings with the water. Use a stick to poke through debris. Tsunami floodwaters flush snakes and animals out of their homes.
- Watch for loose plaster, drywall, and ceilings that could fall.
- Open the windows and doors to help dry the building.
- Shovel mud while it is still moist to give walls and floors an opportunity to dry.
- Check food supplies. Any food that has come in contact with floodwaters may be contaminated and should be thrown out.

SEVERE WEATHER: WINTER STORM

General Information

A major winter storm can last for several days and be accompanied by high winds, freezing rain or sleet, heavy snowfall, and cold temperatures. While the danger from winter weather varies across the country, nearly all Americans, regardless of where they live, are likely to face some type of severe winter weather at some point in their lives. Types of severe winter weather include the following:

- **Strong winds** can create blizzard conditions with blinding wind-driven snow, severe drifting, and dangerous wind chill.
- **Extreme cold** is defined as any time winter temperatures drop significantly below normal; normal winter temperatures vary in different parts of the country.
- **Ice** in heavy accumulations can bring down trees, electrical wires, telephone poles and lines, and communication towers. Ice is produced by the following winter weather conditions:
  - **Sleet**, or raindrops that freeze into ice pellets before reaching the ground, does not stick to objects but can accumulate like snow.
  - **Freezing rain** falls onto a surface that is at a temperature below freezing which causes it to freeze to surfaces, such as trees, cars, and roads, forming a coating or glaze of ice.
- **Heavy snow** can immobilize a region and paralyze a city, stranding commuters, stopping the flow of supplies, and disrupting emergency and medical services. Accumulations of snow can collapse buildings and knock down trees and power lines. Several types of snowfall include the following:
  - **Squalls** are brief, intense snow showers accompanied by strong, gusty winds with possible significant snow accumulation.
  - **Blowing snow** is wind-driven snow that reduces visibility and causes significant drifting.
  - A **blizzard**, or a combination of winds over 35 mph with snow and blowing snow, can reduce visibility to near zero.
  - **Avalanche** is a mass of tumbling snow typically triggered by a rapid accumulation of snow; 90 percent of avalanches occur within 24 hours of snowfall.
- **Winter flooding** caused by winter storms can include the following:
  - **Coastal floods,** caused by the winds generated from intense winter storms, can cause widespread tidal flooding and severe beach erosion along coastal areas.
  - **Ice jams** are large chunks of ice that break away from frozen rivers and lakes due to a rise in the water level or a thaw. The chunks of ice become jammed at manmade and natural obstructions and can act as a dam, resulting in severe flooding.
  - **Snowmelt** is a sudden thaw of a heavy snow pack that often leads to flooding.

Serious health problems can result from prolonged exposure to the cold. The most common cold-related problems are **hypothermia,** or abnormally low body temperature, which occurs because prolonged exposure to cold temperatures causes your body to lose heat faster than it can be produced, and **frostbite,** or an injury to the body that is caused by freezing.

The following sections provide information on how to prepare before a winter storm, actions to take during a winter storm, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

SEVERE WEATHER: WINTER STORM

National Oceanographic and Atmospheric Administration

http://www.nws.noaa.gov/om/brochures/wntrstm.htm

http://www.weather.gov/os/winter/index.shtml

Centers for Disease Control

http://www.bt.cdc.gov/disasters/winter/

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/hazard/winter/index.shtm

Ready.gov

http://www.ready.gov/america/beinformed/winter.html

American Red Cross

http://www.redcross.org/general/0,1082,0_252_4435,00.html

Prepare – Before a Winter Storm

Taking preventive action is your best defense against having to deal with extreme cold-weather conditions. By preparing in advance for winter emergencies, and by observing safety precautions during times of extremely cold weather, you can reduce the risk of weather-related health problems. Although periods of extreme cold cannot always be predicted far in advance, weather forecasts can sometimes provide you with several days' notice. Listen to weather forecasts regularly, and check your emergency supplies whenever a period of extreme cold is predicted.

One of the primary concerns is winter weather's ability to knock out heat, power, and communications services, sometimes for days at a time. During a severe winter storm, it could be hours, or even days, before emergency personnel are able to reach you. Therefore, it is important to prepare for the possibility of being without power, heat, or running water. The following are suggested actions to take before a winter storm:

- Make sure the facility is well insulated to keep the warm air inside.
- Have extra blankets on hand to keep you warm if winter weather knocks out your heat.
- Monitor commercial radio, television, and the Internet to stay informed of winter weather watches and warnings.
- Assemble an emergency kit.
- Refill heating fuel because fuel carriers may not be able to deliver for days after a winter storm.

Respond – During a Winter Storm

When the weather is extremely cold, especially accompanied by high winds, try to stay indoors. Make any trips outside as brief as possible.

SEVERE WEATHER: WINTER STORM

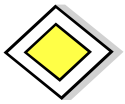
A ***winter storm watch*** is issued when severe weather such as heavy snow or ice is possible in the area within the next day or two. The following are suggested actions to take if a ***winter storm watch*** is issued:

- Listen to NOAA Weather Radio, local radio and TV stations, or cable TV for further updates.
- Be alert to changing weather conditions.
- Avoid unnecessary travel.

A ***winter storm warning*** is issued when severe winter conditions have begun or will begin very soon in the area. The following are suggested actions to take if a *winter storm warning* is issued:

- Stay indoors during the storm.
- If you must go outside:
  - Wear loose, lightweight, warm clothes in layers. Trapped air insulates. Remove layers to avoid perspiration and subsequent chill. Outer garments should be tightly woven, water repellent, and hooded. Wear a hat. Half your body heat loss can be from the head. Cover your mouth to protect your lungs from extreme cold. Mittens, snug at the wrist, are better than gloves. Wool, silk, or polypropylene inner layers of clothing will hold more body heat than cotton.
  - Understand the hazards of wind chill, which combines the cooling effect of wind and cold temperatures on exposed skin. As the wind increases, heat is carried away from a person's body at an accelerated rated, driving down the body temperature.
  - Walk carefully on snowy or icy sidewalks.
- Extreme cold can cause water pipes to freeze and sometimes rupture. When very cold temperatures are expected, leave all water taps slightly open so that they drip continuously.
- Eating well-balanced meals will help you stay warmer. Do not drink alcoholic or caffeinated beverages – they cause your body to lose heat more rapidly. Instead, drink warm, sweet beverages or broth to help maintain your body temperature.
- Conserve heat by keeping as much warm air inside as possible. Avoid unnecessary opening of doors or windows. Close off unneeded rooms, stuff towels or rags in cracks under doors, and close draperies or cover windows with blankets at night.
- Monitor body temperature for infants and elderly. Provide warm clothing for infants and try to maintain a warm indoor temperature. If the temperature cannot be maintained, make temporary arrangements to stay elsewhere. In an emergency, you can keep an infant warm using your own body heat. Older adults often make less body heat because of a slower metabolism and less physical activity.

A ***blizzard warning*** means strong winds, blinding wind-driven snow, and dangerous wind chill are expected. Seek shelter immediately.



Recover – After a Winter Storm

People can become trapped without utilities or other assistance. The aftermath of a winter storm can have an impact on a community or region for days, weeks, or even months. Extremely cold temperatures, heavy snow, and coastal flooding can cause hazardous conditions and hidden problems. The following are suggested actions to take following a winter storm:

- Continue listening to local radio or television stations for updated information and instructions. Access may be limited to some parts of the community, or roads may be blocked. Follow

SEVERE WEATHER: WINTER STORM

forecasts and be prepared when venturing outside. Major winter storms are often followed by even colder conditions.

- Help those who may require special assistance, including infants, elderly people, and people with disabilities.
- Avoid driving and other travel until conditions have improved. Snow or emergency vehicles may block roads.
- Avoid exertion. Cold weather puts an extra strain on the heart. If you have heart disease or high blood pressure, follow your doctor's advice about shoveling snow or performing other hard work in the cold.
- Avoid ice. Walking on ice is extremely dangerous. Keep your steps and walkways as free of ice as possible by using rock salt or another chemical de-icing compound. Sand may also be used on walkways to reduce the risk of slipping.

VOLCANIC ERUPTION

General Information

A volcano is a mountain that opens downward to a reservoir of molten rock below the surface of the earth. When pressure from gases within the molten rock becomes too great, an eruption occurs. Many kinds of volcanic activity can endanger the lives of people and property both close to and far away from a volcano. Most of the activity involves the explosive ejection or flowage of rock fragments and molten rock in various combinations of hot or cold, wet or dry, and fast or slow. Some hazards are more severe than others depending on the size and extent of the event taking place and whether or not people or property are in the way. And, although most volcano hazards are triggered directly by an eruption, some occur when a volcano is quiet. Volcanic eruptions can be accompanied by other natural hazards, including earthquakes, flash floods, rock falls, as well as the following hazards:

- **Volcanic gases** are released into the atmosphere during eruptions or escape continuously from the soil, volcanic vents, fumaroles, and hydrothermal systems. The volcanic gases that pose the greatest potential hazard to people, animals, agriculture, and property are sulfur dioxide, carbon dioxide, and hydrogen fluoride.
- **Volcanic ash** usually covers a much larger area and disrupts the lives of far more people than the other more lethal types of volcanic hazards. A variety of terms are used to describe the range of rock fragments erupted into the air by volcanoes.
- **Lahar** is a hot or cold mixture of water and rock fragments flowing down the slopes of a volcano and/or river valleys. When moving, a lahar looks like a mass of wet concrete.
- **Debris flow** is a dense flow that consists of more than 80 percent sediment. A **mudflow** is a type of debris flow composed of at least 50 percent sand, silt, and clay-size particles.
- **Landslides** are large masses of rock and soil that fall, slide, or flow very rapidly under the force of gravity, in a wet or dry state, or both.
- **Lava flows** are streams of molten rock that pour or ooze from an erupting vent. Lava is erupted during either non-explosive activity or explosive lava fountains. Lava flows destroy everything in their path, but most move slowly enough that people can move out of the way.

Unlike other natural hazards, volcanic hazards are strongly localized, the most destructive effects of eruptions being limited to areas within a few tens of kilometers of each volcano. To help keep communities safe, it is essential to monitor hazardous volcanoes so that the public knows when unrest begins and what hazards can be expected. A volcano may begin to show signs of unrest several months to a few years before an eruption. In these cases, however, a warning that specifies when a volcano might erupt months to years ahead of time is extremely rare.

The United States is one of the most volcanically rich countries in the world, with 169 active and dormant volcanoes. Active volcanoes in the U.S. are found mainly in Hawaii, Alaska, and the Pacific Northwest. Active volcanoes of the Cascade Mountain Range in California, Oregon, and Washington have created problems recently. The danger area around a volcano covers approximately a 20-mile radius. Some danger may exist 100 miles or more from a volcano, leaving Montana and Wyoming at risk.

The following sections provide information on how to prepare before a volcanic eruption, actions to take during a volcanic eruption, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

United Stated Geological Survey

http://www.usgs.gov/hazards/volcanoes/

VOLCANIC ERUPTION

http://vulcan.wr.usgs.gov/

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/hazard/volcano/index.shtm

American Red Cross

http://www.redcross.org/services/disaster/0,1082,0_593_,00.html

Prepare – Before a Volcanic Eruption

The time between the onset of an eruption or significant precursory phenomena and the actual eruption may range from a few hours to several days, weeks, or months. However, the time required to put emergency protective measures into effect depends on the size of the area at risk, the density of population, the degree of mobility of the population, the transport and communication facilities available, and the general technological level of development. It will generally be measured in hours or days.

As such, it is recommended to prepare for two types of action:

- Phased response to a gradually developing volcanic crisis, during which warning of potentially dangerous volcanic events can be expected at least 24 hours before they occur.
- Immediate response to a situation calling for the fastest possible evacuation of people by whatever means are immediately available.

The following are suggested actions to take before a volcanic eruption:

- Add a pair of goggles and disposable breathing mask for each member of the family to your disaster supply kit.
- Stay away from active volcano sites.
- If you live near a known volcano, active or dormant, be ready to evacuate at a moment's notice.
- Learn about your community warning systems and emergency plans.
- Be prepared for the hazards that can accompany volcanoes, including mudflows and flash floods, landslides and rockfalls, earthquakes, ashfall and acid rain, and tsunamis.
- Make evacuation plans. If you live in a known volcanic hazard area, plan a route out and have a backup route in mind.
- Have disaster supplies on hand.

The following are suggested actions to take before an ash fall:

- Conduct a vulnerability analysis of equipment and facilities to determine which would be the most affected by ash fall and which are adequately and inadequately protected.
- Identify appropriate methods of protecting vulnerable equipment and facilities from ash.
- Develop a priority list of facilities that must be kept operative versus those that can be shut down during and after ash falls.
- Identify effective and efficient ash-removal methods for equipment and facilities.

VOLCANIC ERUPTION

- Develop communication plans and procedures for notifying employees of potential ash fall warnings, reducing or shutting down operations, and accelerating maintenance of buildings and machinery during cleanup operations.
- Stockpile spare parts for critical equipment, including oil and air filters and cleaning and disposal equipment.
- Do not start cleanup operations until the ash fall is over (except when buildings are threatened by overloading of roofs).
- Personal protection gear and logistical support will be needed for employees during ashy conditions, especially those involved in cleanup operations. Recommended gear includes filter masks, respirators, eye protection, hats or helmets, food and water, auxiliary lighting, and even portable toilets to minimize traffic into buildings.
- Establish a control and communications center to coordinate cleanup activities and disseminate ash and eruption cloud notices and information to employees.
- Provide educational materials about ash to employees regarding physical properties of volcanic ash, potential health effects, and personal-protective equipment.
- Prioritize and sequence areas for cleanup (top to bottom) and coordinate with public organizations and communities.
- Identify short-term and long-term equipment availability and needs; consider resources that might be available elsewhere.
- No single cleaning technique will be the best in all situations; a range of measures often provides the best results. Constant monitoring of ash effects and mitigation procedures is encouraged to achieve the most effective balance between operational requirements and damage limitation.

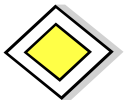
Respond – During a Volcanic Eruption

The following are suggested actions to take during a volcanic eruption:

- Follow the evacuation order issued by authorities and evacuate immediately from the volcano area to avoid flying debris, hot gases, lateral blast, and lava flow.
- Be aware of mudflows. The danger from a mudflow increases near stream channels and with prolonged heavy rains. Mudflows can move faster than you can walk or run. Look upstream before crossing a bridge, and do not cross the bridge if a mudflow is approaching.
- Avoid areas downwind and river valleys downstream of the volcano.
- Protect yourself from falling ash through the following measures:
  - Wear a long-sleeved shirt and long pants.
  - Use goggles and wear eyeglasses instead of contact lenses.
  - Use a dust mask or hold a damp cloth over your face to help breathing.
  - Listen to a battery-powered radio or television for the latest emergency information.
  - If you have a respiratory ailment, avoid contact with any amount of ash.
  - Stay away from areas downwind from the volcano to avoid volcanic ash.
  - Stay indoors until the ash has settled unless there is a danger of the roof collapsing.

VOLCANIC ERUPTION

- Close doors, windows, and all ventilation in the house (chimney vents, furnaces, air conditioners, fans, and other vents).
- Avoid running car or truck engines. Driving can stir up volcanic ash that can clog engines, damage moving parts, and stall vehicles.
- To significantly reduce damage to the interior of a building, take several key steps before an ash fall begins. For example, shut down a building's mechanical systems and air conditioners, protect air intakes, and close other openings (doors and windows).



Recover – After a Volcanic Eruption

Damage to buildings and building systems from volcanic ash can range from complete or partial roof collapse to less catastrophic damage of exterior materials and interior rooms, including appliances and computers, floor coverings, and electrical and mechanical systems. These effects depend on several factors, including the thickness of ash, whether it is wet or dry, the roof and building design, air-handling systems, and how much ash gets inside a building.

After an ash fall, removing ash from the roofs of buildings is usually a top priority in order to prevent roof collapse. In addition, reactivate the ventilating and air-handling systems and coordinate clean-up efforts. Rapid cleanup and restoring normal operation of public buildings can significantly improve public morale and confidence after an ash fall.

The following are specific suggested actions to take after a volcanic eruption

- If possible, stay away from volcanic ash fall areas.
- When outside:
  - Cover your mouth and nose. Volcanic ash can irritate your respiratory system.
  - Wear goggles to protect your eyes.
  - Keep skin covered to avoid irritation from contact with ash.
- Clear roofs of ash fall. Ash fall is very heavy and can cause buildings to collapse. Exercise great caution when working on a roof.
- If you have a respiratory ailment, avoid contact with any amount of ash. Stay indoors until local health officials advise it is safe to go outside.
- In general, surfaces should be vacuumed to remove as much ash as possible from carpets, furniture, office equipment, appliances, and other items. Portable vacuum systems equipped with high-efficiency particulate filtering systems are recommended whenever possible.

WILDFIRE

General Information

Wildfires, a natural hazard in most regions of the U.S., pose a threat to life and property, particularly where native ecosystems meet developed areas. Suppression of natural fires may lead to more severe fires due to the buildup of vegetation, which creates more fuel. Secondary effects of wildfires – such as erosion, landslides, introduction of invasive species, and changes in water quality – are often more disastrous than the fire itself.

The less obvious but equally devastating effects of wildfires occur after the fire is extinguished. These aftereffects include erosion, landslides, debris flows, and altered water quality. The risk of floods and debris flows increases due to the exposure of bare ground and the loss of vegetation. Sediment, burned debris, and chemicals affect water quality as well.

The following sections provide information on how to prepare before a wildfire, actions to take during a wildfire, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

United Stated Geological Survey

http://www.usgs.gov/hazards/wildfires/

http://www.usgs.gov/themes/Wildfire/fire.html/

http://firescience.cr.usgs.gov/html/sitemap.html

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/hazard/wildfire/index.shtm

Geospatial Multi-Agency Coordination

http://www.geomac.gov/

Landscape Fire and Resource Management Planning Tools Project

http://landfire.gov/

Prepare, Prevent, and Protect – Before a Wildfire

The threat of wildfires for people living near forested areas or using recreational facilities in wilderness areas is real. Dry conditions at various times of the year and in various parts of the United States greatly increase the potential for wildfires.

Advance planning and knowing how to protect buildings in these areas can lessen the devastation of a wildfire. There are several safety precautions that you can take to reduce the risk of fire losses. To reduce the risk, consider the following:

- Assess the fire resistance of the facility. Contact your local fire department, forestry office, emergency management office, or building department for information about local fire laws, building codes, and protection measures.
- Learn about the history of wildfire in the area.
- Be aware of recent weather. A long period without rain increases the risk of wildfire.
- Determine your community's ability to respond to wildfire.

WILDFIRE

- Create a 30-foot safety zone around the facility. Keep the volume of vegetation in this zone to a minimum.
- Create a second zone at least 100 feet around the facility. Reduce or replace as much of the most flammable vegetation as possible.
- Clear all combustibles within 30 feet of any structure.

Evacuation may be the only way to protect your family in a wildfire. Know where to go and what to bring with you. You should plan several escape routes in case roads are blocked by a wildfire.

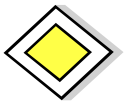
Learn and teach safe fire practices:

- Build fires away from nearby trees or bushes.
- Always have a way to extinguish the fire quickly and completely.
- Install smoke detectors on every level of your home and near sleeping areas.
- Never leave a fire – even a cigarette – burning unattended.
- Avoid open burning completely, but especially during dry season.

Respond – During a Wildfire

If you see a wildfire, call 9-1-1. Don't assume that someone else has already called. Describe the location of the fire, speak slowly and clearly, and answer any questions asked by the dispatcher.

Stay calm. As the fire front approaches, go inside the facility. You can survive inside. The fire will pass before the facility burns down.



Recover – After a Wildfire

Check the roof immediately. Put out any roof fires, sparks, or embers. For several hours after the fire, maintain a "fire watch." Re-check for smoke and sparks throughout the facility.

POWER DISTURBANCE

General Information

There are many different sources of power disturbances, some of which you can prevent and solve yourself and some of which you cannot. Examples of common causes of power disturbances include the following:

- **Lightning** is a frequent cause of localized power outages during the summer months. Fuses and devices called lightning arrestors are installed throughout a utility's distribution system. These devices are designed to protect power lines from serious damage; still, it takes time for field crews to locate affected pieces of equipment and make the needed repairs.
- **High winds,** mainly from thunderstorms, but sometimes from tornadoes and hurricanes, are often the cause of both local and widespread outages. Damage generally occurs when trees or tree limbs fall onto our power lines.
- **Ice storms** can create a heavy buildup of ice on power lines and trees. In rare cases, the buildup can be so great that wooden utility poles and metal lattice transmission towers collapse under the enormous weight.
- **Heavy rains** can cause flooding that damages both aboveground and underground electrical equipment. Flooding may also make travel difficult for repair crews.
- **Falling trees and tree limbs**, resulting from any of the above severe weather conditions, is the single leading cause of power outages during storms.
- **Vehicle and construction accidents** are not an unusual cause of power outages. Motor vehicle accidents can result in broken poles, causing power lines to fall and short-circuit. Also, construction crews occasionally contact overhead electric lines with tall cranes, high-boy lifts, backhoes and dump trucks, creating life-threatening conditions for those involved as well as power outages in adjacent areas.
- **Small animals**, typically squirrels, raccoons, and birds, can short-circuit certain pieces of pole-mounted equipment, such as transformers and fuses.
- **Equipment failure** can take place on the electric system. This failure can be created by exposure to the elements and high electric loads over time.
- **Electromagnetic pulses (EMP)** are shockwaves capable of knocking out electronic devices by overloading their components with electrical energy.
- **Other causes** include faulty or loose electrical wiring, poorly grounded electrical appliances, faulty circuit breakers or improperly sized fuses, and large appliance motors cycling on and off.

Depending on the type of disturbance and the equipment involved, the effect of power disturbances may range from instant breakdown to more gradual deterioration over time. Electronic devices don't even need to be in use to be vulnerable to damage. Many have built-in timers, internal clocks, remote controls, or other systems that are always running, even when the item itself is turned off. Types of power disturbances that may affect a facility include:

- **Spikes and Surges**. Spikes are brief bursts of excess voltage. Surges are also bursts of additional voltage but last a bit longer. Spikes and surges can destroy any of the following electronics instantly or over time: computers, stereo systems, microwave ovens, security systems, digital thermostats, and refrigerators.

POWER DISTURBANCE

- **Sags, dips, and outages.** Sags and dips are brief periods of low voltage. Outages (or blackouts) are periods when there is no electric power. Outages can last from less than a second to minutes or even longer. While sags and dips can be caused when an electrical device draws power as it is turned on, outages are usually caused by severe weather, accidental damage to power company equipment, or electrical short circuits created inside the home. Sags, dips, and outages can cause data loss or physical damage to computers and other devices that use memory.

The following sections provide information on how to prepare for a power disturbance, actions to take during a power disturbance, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

Department of Energy

http://www.oe.energy.gov/

http://www.oe.netl.doe.gov/emergency_sit_rpt.aspx

Prepare, Prevent, and Protect – Before a Power Disturbance

The best way to avoid losses due to power disturbances is to be prepared. Following are actions that can be taken to prepare:

- Inspect interior and exterior electrical wiring using a licensed electrician or general contractor.
- Look for potential hazards, such as tree limbs over power lines.
- Plug-in surge protectors shield individual pieces of electronics from spikes, surges, and electrical noise that originate inside the home or office and offer a measure of protection from outside disturbances.
- Uninterruptible power supply (UPS) units are mainly for use with computers and related equipment; these units operate "online" to filter out all types of power problems and provide disturbance-free electricity during normal operating conditions. In case of a power outage, the UPS special battery back-up systems supply 15 to 20 minutes of reserve power, allowing you time to save your data and shut down your equipment safely.
- During a temporary outage, first responders may be hampered in their performance of duties if important equipment assets do not function as expected. As such, examine the following pertaining to alternate power supply:
  - Are all emergency power generators operational?
  - Do emergency power generators have a sufficient fuel supply?
  - What are the procedures to ensure continual refueling?
  - Are the manual or automatic transfer switches functional?
  - Are back-up systems operational with fully charged batteries?
  - Are spare batteries available at the location of the back-up system?
  - What are the alternatives if power generators or batteries don't work?
  - What are the sources of fuel and water when pumps fail to operate?
- If you have medication that requires refrigeration, check with your pharmacist for guidance on proper storage during an extended outage.

POWER DISTURBANCE

- Check flashlights and battery-powered portable radios to ensure that they are working, and check to ensure that you have extra batteries. A radio is an important source of weather and emergency information during a storm.
- Review the process for manually operating an electric garage door.
- All buildings should be equipped with an emergency lighting system that will provide a limited amount of lighting in case of an outage. With such a system, emergency lighting on floors and in stairwells as well as lighting on all fire alarms and public address systems will remain operational.
- Maintain an emergency kit.
- Keep computer files and operating systems backed up regularly.
- If you have a telephone instrument or system at home or at work that requires electricity to work (such as a cordless phone or answering machine), plan for alternate communication, including having a standard telephone handset, cellular telephone, radio, or pager.
- If your water supply could be affected (i.e., with a well-water pump system), fill your bathtub and spare containers with water. Water in the bathtub should be used for sanitation purposes only, not as drinking water. Pouring a pail of water from the tub directly into the bowl can flush a toilet.
- For disabled occupants who have power-dependent equipment, consider recommended alternatives for the following situations:
    - Limited mobility using a motorized wheelchair or scooter – have an extra battery. A car battery also can be used with a wheelchair but will not last as long as a wheelchair's deep-cycle battery. If available, store a lightweight manual wheelchair for backup.
    - Blind or visually disabled – store a talking or Braille clock or large-print timepiece with extra batteries.
    - Deaf or hearing disabled – consider getting a small portable battery-operated television set. Emergency broadcasts may give information in American Sign Language (ASL) or open captioning.

Respond – During a Power Disturbance

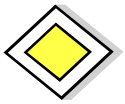
Power disturbances do not usually require evacuation unless other conditions arise (e.g., fire, smoke). Relocation and/or employee release may be warranted if outages will be prolonged, but remain where you are until a public address announcement is made with further instructions or until power is restored.

Dimming or flickering lights could indicate that your electric power is about to be interrupted. Flickering or dimming lights are caused by physical interference, such as tree limbs falling on power lines. When lights dim or flicker, do the following:

- Remain calm.
- Unplug or turn off all appliances that will come on when the power returns – they may overload our circuits. Leave a lamp switched on so you will know when the power is restored. Then you can turn your appliances back on, one at a time, over a 20-minute period.
- If your power goes out, leave these appliances disconnected until electric service is restored.
- Check to see if neighboring facilities are without power, too. If they have power and you do not, the problem could be localized within the facility.

POWER DISTURBANCE

- Do not use open flames such as matches or lighters for emergency lighting. Open the blinds, curtains, and interior doors so that the interior of the building receives as much natural light as possible. During the winter, this natural light also allows the sun to warm rooms during the day. Note: Occupants may be instructed to close shades or curtains to keep rooms cooler during warm weather and warmer during cold weather.
- Listen to local radio and television for updated information.
- Use the phone for emergencies only.
- Be extra cautious if you go outside. Downed or hanging electrical wires can be hidden by debris and could be live. Never attempt to touch or move downed lines. Do not touch anything that power lines are touching, such as tree branches or fences. Always assume that a downed line is a live line.
- Do not open the refrigerator or freezer door. Food can stay cold in a full refrigerator for up to 24 hours and in a well-packed freezer for 48 hours (24 hours if it is half-packed).
- Power outages that occur during summer can place occupants at risk of heat stress due to rising temperatures inside the facility. In the winter, outages can place occupants at risk of hypothermia or frostbite.
- When you call to report an electric problem, be prepared to give your name, telephone number, and address. Be as specific as possible about your location by giving cross streets or mentioning visible landmarks.



Recover – After a Power Disturbance

The cause of a power disturbance is not always obvious or immediately visible. Before repairs can be made, repair crews must first inspect the lines and equipment to find the specific problem and then ensure that the area is safe before repairs can begin. When power is restored after a power outage, actions must be taken to ensure safe return to normal operation. These actions depend on part by the length of the outage:

- **Food Safety**. If the power is out for less than two hours, then the food in your refrigerator and freezer will be safe to consume. While the power is out, keep the refrigerator and freezer doors closed as much as possible to keep food cold for longer. If the power is out for longer than two hours, follow the guidelines below:
  - For the freezer section: A freezer that is half full will hold food safely for up to 24 hours. A full freezer will hold food safely for 48 hours. Do not open the freezer door if you can avoid it.
  - For the refrigerated section: Pack milk, other dairy products, meat, fish, eggs, gravy, and spoilable leftovers into a cooler surrounded by ice. Inexpensive Styrofoam coolers are fine for this purpose.
  - Use a digital quick-response thermometer to check the temperature of your food right before you cook or eat it. Throw away any food that has a temperature of more than 40 degrees Fahrenheit.
- **Water safety**. When power goes out, water purification systems may not be functioning fully. Safe water for drinking, cooking, and personal hygiene includes bottled, boiled, or treated water. Here are some general rules concerning water for drinking, cooking, and personal hygiene:

POWER DISTURBANCE

- Do not use contaminated water to wash dishes, brush your teeth, wash and prepare food, wash your hands, make ice, or make baby formula. If possible, use baby formula that does not need to have water added. You can use an alcohol-based hand sanitizer to wash your hands.
- If you use bottled water, be sure that it came from a safe source. If you do not know that the water came from a safe source, you should boil or treat it before you use it. Use only bottled, boiled, or treated water until your supply is tested and found safe.
- Boiling water, when practical, is the preferred way to kill harmful bacteria and parasites. Bringing water to a rolling boil for one minute will kill most organisms.

SUSPICIOUS OBJECT

General Information

Suspicious objects includes any package, envelope, device, or unattended baggage that seems out of place or is not readily identified. Occupants, because of their familiarity with the space where they work, can most easily spot something that does not belong there.

The primary hazard associated with a suspicious object is the threat of explosion or contamination. As a result, suspicious objects should be treated with extreme caution.

The United States Postal Service uses three categories to characterize **suspicious packages or envelopes**:

- Category 1 includes packages or envelopes delivered to an employee that have no suspicious markings but make the recipient feel uncomfortable.
- Category 2 packages or envelopes have one or more suspicious aspects:
  - Restrictive markings, such as “Confidential,” “Personal,” or “Fragile”
  - The package or envelope is unexpected or from an unfamiliar person, organization, or point-of-origin
  - Excessive postage (multiple postage stamps) or no metered strip, indicating that the item was not mailed at a post office
  - Sloppy or unprofessional packaging
  - No return address or a return address not consistent with the state where postmarked
  - Incorrect title of addressee or title but no name of addressee
  - Oily stains, discoloration, or strange odor
  - Evidence of electrical wire or tin foil
  - Excessive wrapping materials such as masking/strapping tape or string
  - Exceptional weight for its size; lopsided or oddly shaped
  - Any USPS package over ¾ inch wide that does not have a red “x-ray” stamp on it
  - Any mail or package from an alternative mail carrier that does not have a red “x-ray” stamp on it.
- Category 3 may include an envelope or package that has been opened and contains one or more suspicious aspects including:
  - A powdery substance
  - A threatening letter
  - Electric wire or tin foil
  - Any audible noise.

Other suspicious objects may include unattended backpacks, briefcases, or luggage, especially in public, high-traffic areas such as airports, subway stations, or restaurants.

The following sections provide information on how to prepare before a suspicious object is found, actions to take when one is found, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

SUSPICIOUS OBJECT

Federal Bureau of Investigation

http://www.fbi.gov/page2/september06/package092006.htm

United States Postal Service

http://www.usps.com/news/2001/press/pr01_1010tips.htm

Centers for Disease Control and Prevention

http://www.bt.cdc.gov/agent/anthrax/mail/suspiciouspackages.asp

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/areyouready/explosions.shtm

Prepare – Before a Suspicious Object Is Found

Occupants need to understand that everyone plays a role in keeping the workplace safe from suspicious objects. Train occupants on the following:

- What a suspicious object could look like
- Actions to take if a suspicious object is found
- Protocol for receipt of suspicious packages or envelopes through the mail.

Prepare announcements, such as the example shown below, to be used if necessary:

> May I have your attention please? May I have your attention please? May I have your attention please?
>
> We have identified a suspicious package on the ___ floor.
>
> Occupants of the ___, ___, and ___ floor(s) (1 above and 1 below) are required to evacuate until the emergency is over. (REPEAT)
>
> Please walk to the nearest exit and report to your floor's designated evacuation area.
>
> Only the affected floors need to evacuate.
>
> Do not use the elevators, please proceed to stairways. (REPEAT)
>
> *When the "All Clear" is given:*
>
> May I have your attention please? May I have your attention please? May I have your attention please?
>
> The emergency on the ____ floor is now over.
>
> Occupants of the ___, ___, and ___ floors may return to their work areas.

Respond – During a Suspicious Object Incident

The following are suggested actions to take if a suspicious object is identified:

If a **suspicious device or unattended item** is found in the facility:

- Do not touch it or move it!
- Immediately call the police, dial 9-1-1, or contact emergency responders.
- Evacuate the area if instructed to do so, and await further instructions from emergency responders. The Incident Commander should notify all search crews once an object has been

SUSPICIOUS OBJECT

found. If no evacuation has been undertaken to this point, the decision to evacuate the area should be made by the Incident Commander.

- No one should be permitted to re-enter the building until the Incident Commander gives clearance. Facility managers and staff must cooperate with the Incident Commander and assist in the effort to maintain order and public safety.
- If a device has been deemed harmless or destroyed, or if a reported device has not been found after a thorough search and a reasonable time has passed, the decision to allow evacuated persons back into the building will be left to the official in charge of the facility, after consultation with the Incident Commander. Allow at least 15 minutes after the time of probable detonation (in the case of a bomb threat) to re-enter or as determined by the Incident Commander.

If you receive an **envelope or package** that makes you uncomfortable, has one or more suspicious markings, or has been opened and contains suspicious objects, take the following actions:

- Remain calm.
- Leave the item exactly where it is. Do not move, shake, stir, taste, or smell the item.
- If a substance is spilling out of the object, cover spilled contents immediately with anything available (e.g., clothing, paper, trash can, etc.).
- Leave the office and close the door if the item is in a private office.
- If the item is in a large office area, have people move to a secure area outside the office and close off the potentially contaminated area.
    - If possible contamination of occupants has occurred, move to a neighboring quarantine area.
    - If conditions permit, wash off any particles and any liquid you came in contact with and wash your hands with soap and water to prevent spreading any powder to your face.
    - Wait for emergency personnel to arrive and follow their instructions. They are trained to provide decontamination and any medical attention necessary.
- Do not lock doors. Emergency personnel will need access.
- Stop others from entering the space.
- Wash your hands and face with cool water.
- Call authorities and follow their instructions.

All Category 1 items will be returned to the mailroom. In a secure environment, a mail handler wearing protective equipment will open the suspicious item. If, upon opening the item, nothing is suspicious, the item will be returned to you. If the item is determined to be suspicious, further testing will be conducted; the tests may take several weeks to complete. If deemed safe, the item will be inserted into the mail handling system and returned to you. If the item is not safe, it will not be returned.

Category 2 items are opened offsite by a contractor following the same protocol as Category 1 mail, and Category 3 items are handled by first responder agencies.

Recover – After a Suspicious Object Incident

After a suspicious object incident has passed, facilitate the recovery process by

SUSPICIOUS OBJECT

taking the following actions:

- Discuss the circumstances of the incident with staff members. Encourage employees to share information about ways to avoid and respond to similar situations in the future.
- Offer stress debriefing sessions and posttraumatic counseling services to help workers recover from a disturbing incident.
- Investigate all incidents and threats, monitor incident trends by type or circumstance, and institute corrective actions.
- Discuss changes in the program during regular employee meetings.

Federal Management Regulation FMS 102-74.15 requires that occupant agencies in GSA space promptly report all crimes and suspicious circumstances occurring on federally controlled property.

THREATS: BOMB AND WORKPLACE VIOLENCE

General Information

Threats are expressions of intent to do harm. They may be specific or non-specific, indirect or direct, verbal or non-verbal. Violence is any act of physical, verbal, or psychological threat or abuse, assault, or trauma on an individual that results in physical and/or psychological damage.

Facility occupants may receive a variety of threats. Whether over the phone, by mail, or in person, all threats should be taken seriously until an assessment of the threat is completed to determine risk. Types of threats discussed include the following:

- **Bomb threats** are normally received by telephone, although they might be received via mail or by hand-delivered message.
- **Workplace violence** is violence, or the threat of violence, against workers. It can occur at or outside the workplace and can range from threats and verbal abuse to physical assaults and homicide, one of the leading causes of job-related deaths.

BOMB THREATS

General Information

Bombing and the threat of being bombed are harsh realities in today's world. Bombs can be constructed to look like almost anything and can be placed or delivered in any number of ways. The only common denominator that exists among bombs is that they are designed or intended to explode. Most bombs are homemade and are limited in their design only by the imagination of, and resources available to, the bomber.

Bomb threats are delivered in a variety of ways. The majority of threats are called in to the target. Occasionally these calls are through a third party. Sometimes a threat is communicated in writing or by a recording. Bomb threats are normally received by telephone, although they might be received via mail or by hand-delivered message. Although most bomb threats do not result in an explosion or discovery of an explosive device, it is very important that threats are thoroughly evaluated and that effective procedures exist for reacting to threats.

The following sections provide information on how to prepare before a threat is received, actions to take when one is received, and suggestions on how to safely recover afterward.

Prepare – Before a Bomb Threat Is Received

Analysis of bomb threat data indicates that most threats are made to create a sense of fear in the employees and disrupt the facility. This objective can be denied, to a great extent, by effective planning and organization. The following are suggested actions:

- Provide occupants with instructions and a checklist positioned by the telephone so that they may act quickly, but remain calm and obtain appropriate information. A sample bomb threat checklist is also included following this procedure.
- The position of Bomb Search Coordinator may be included in the organization of the OEP for an individual with a good general knowledge of the physical layout of the entire facility as well as the type of work that is done in each area. This knowledge will help responders determine the areas most susceptible to the introduction of an explosive device and will facilitate quick, effective searches.
- Establish a protocol to determine whether or not an announcement of a bomb threat should be made. Because a public announcement could conceivably result in panic among the employees or detonation of a device, security officials may wish to consider making an announcement in a code known only to selected personnel or use floor teams to evacuate the facility. A warning message should be prepared beforehand for each of the protective actions that are practical for the building. This advance planning will ensure that the actions can be taken as rapidly as possible and that the instructions will be clearly understood.
- Establish a process for the designated official to use to evaluate the validity of the threat and decide whether to search and/or evacuate an area based on following factors:
    - Available resources to react to the threat, including qualified search teams and bomb dogs
    - Operational impact and the practicality of conducting an evacuation within the threat time frame. If a search is conducted, personnel must follow a pattern of assigned areas and report results to the incident command post immediately.

If possible, have police and/or fire department representatives inspect the building for areas where explosives are likely to be concealed. The bomb disposal unit of the local police would,

BOMB THREATS

in most instances, provide the quickest response for defusing or otherwise disposing of a bomb.

Respond – During a Bomb Threat

The following are suggested actions to take when a bomb threat is received:

If you receive a threat by telephone:

- Without alerting the caller, attempt to get the attention of your supervisor or another person in your area, and point to this memo's subject line or write "bomb" on paper and show it to him/her. Your supervisor or co-worker should call security.
- Attempt to keep the caller on the line as long as possible to permit tracing and to gather information. Do not hang up the phone until all attempts to trace have been initiated.
- If your phone has a display, copy the number and/or letters on the window display.
- The person who receives the call should listen closely to the caller and complete the Bomb Threat Checklist during the call. Actions to take include the following:
    a. Record in writing the exact words of the caller. Attempt to ascertain the location of the bomb, type of device, what it looks like, and expected time of detonation.
    b. Attempt to determine the sex, approximate age, the attitude of the caller, and specific reasons or motives for his or her actions in placing the bomb.
    c. Note any background voices or noises that may provide a clue to the caller's location.
    d. Note any accent or peculiarity of speech, which may help to identify the caller.
    e. If the time permits, ask the caller questions such as "Who is calling, please?" or "What is your name?"
- The person receiving the call must complete the bomb threat report form and bring the completed form to Security as soon as possible after the call.
- Turn off two-way radios and cell phones. These devices may be hazardous. Radios/cell phones in the vicinity should remain "off" until the matter is resolved.

If a threat is received by handwritten note or through the mail:

- Call authorities.
- Handle note as minimally as possible.

If a threat is received by email:

- Call authorities.
- Do not delete the message.

The DO will evaluate the threat and determine if evacuation of the facility is prudent. Occupants may be asked to search their work areas to identify any suspicious packages. In either case, occupants must follow direction provided by emergency response personnel.

Recover – After a Bomb Threat

Many individuals are affected by a threat, including the victim, witnesses, bystanders, as well as friends, relatives, and co-workers of those involved in or witnessing the

BOMB THREATS

event. The following are suggested actions to take after a threat has occurred:

- Discuss the circumstances of the incident with staff members. Encourage employees to share information about ways to avoid similar situations in the future.
- Inform victims of their legal right to prosecute perpetrators.
- Offer stress debriefing sessions and posttraumatic counseling services to help workers recover from a violent incident.
- Investigate all violent incidents and threats, monitor trends in violent incidents by type or circumstance, and institute corrective actions.
- Discuss changes in the program during regular employee meetings.

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BOMB THREATS

Sample Bomb Threat Checklist

Following is information to be recorded by a bomb threat message recipient during or immediately after the threat is communicated.

- Date
- Time
- Time Caller Hung Up
- Phone Number Where Call Was Received

Questions to Ask Caller:

- Where is the bomb located? (Building, Floor, Room, etc.)
- When will it go off?
- What does it look like?
- What kind of bomb is it?
- What will make it explode?
- Did you place the bomb? (Yes, No)
- Why?
- What is your name?
- Where are you?

Record Exact Words of Threat: _____

_____

Record Information About Caller:

- Where is the caller located? (Background and level of noise)
- Estimated age
- Is the voice familiar? If so, who does it sound like?

Other Points:

Caller's Voice

- ❑ Accent
- ❑ Angry
- ❑ Calm
- ❑ Clearing throat
- ❑ Coughing
- ❑ Cracking voice
- ❑ Crying
- ❑ Deep
- ❑ Deep breathing
- ❑ Disguised
- ❑ Distinct
- ❑ Excited
- ❑ Female
- ❑ Laughter
- ❑ Lisp
- ❑ Loud
- ❑ Male
- ❑ Nasal
- ❑ Normal
- ❑ Ragged
- ❑ Rapid
- ❑ Raspy
- ❑ Slow
- ❑ Slurred
- ❑ Soft
- ❑ Stutter

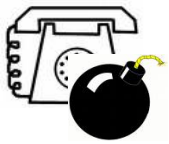
Background Sounds:

- ❑ Animal Noises
- ❑ House Noises
- ❑ Kitchen Noises
- ❑ Street Noises
- ❑ Booth
- ❑ PA System
- ❑ Conversation
- ❑ Music
- ❑ Motor
- ❑ Clear
- ❑ Static
- ❑ Office machinery
- ❑ Factory machinery
- ❑ Local
- ❑ Long distance

Threat Language:

- ❑ Incoherent Message read
- ❑ Taped
- ❑ Irrational
- ❑ Profane
- ❑ Well-spoken

WORKPLACE VIOLENCE



General Information

Workplace violence is violence, or the threat of violence, against workers. It can occur at or outside the workplace and can range from threats and verbal abuse to physical assaults and homicide, one of the leading causes of job-related deaths. Incidents involving disruptive and threatening behavior are increasing; early intervention can help prevent more serious acts of violence.

Types of behavior that can lead to workplace violence include the following:

- **Disruptive behavior** disturbs, interferes with, or prevents normal work functions or activities. Examples include yelling, using profanity, waving arms or fists, verbally abusing others, and refusing reasonable requests for identification.
- **Threatening behavior** includes physical actions short of actual contact/injury, general oral or written threats to people or property, as well as implicit threats.
- **Violent behavior** includes any physical assault, with or without weapons; behavior that a reasonable person would interpret as being potentially violent (e.g., throwing things, pounding on a desk or door, or destroying property), or specific threats to inflict physical harm (e.g., a threat to shoot a named individual).

The following sections provide information on how to prepare before a threat is received, actions to take when one is received, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

Federal Bureau of Investigation

http://www.fbi.gov/publications/violence.pdf

Department of Homeland Security

Federal Emergency Management Agency

http://www.fema.gov/areyouready/homeland_security_advisory_system.shtm

Office of Personnel Management

https://www.opm.gov/employment_and_benefits/worklife/OfficialDocuments/handbooksguides/WorkplaceViolence/index.asp

Occupational Safety and Health Administration

http://www.osha.gov/SLTC/workplaceviolence/

Prepare – Before Workplace Violence Occurs

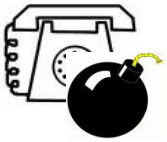
The following are suggested actions to take before workplace violence occurs:

- Establish a zero-tolerance policy toward workplace violence against or by employees.
- Establish a workplace violence prevention program or incorporate the information into an existing accident prevention program, employee handbook, or manual of standard operating procedures.
- Ensure that all employees know the policy and understand that all claims of workplace violence will be investigated and remedied promptly.

WORKPLACE VIOLENCE

- Provide safety education for employees so that they know what conduct is not acceptable, what to do if they witness or are subjected to workplace violence, and how to protect themselves.
- Secure the workplace. Where appropriate to the business, install video surveillance, extra lighting, and alarm systems and minimize access by outsiders through identification badges, electronic keys, and guards.
- Equip field staff with cellular phones and hand-held alarms or noise devices, and require them to prepare a daily work plan and keep a contact person informed of their location throughout the day.
- Instruct employees not to enter any location where they feel unsafe.
- Be able to recognize behaviors and attitudes that may be indicators of disruptive, threatening, or violent behavior. Each of these behaviors is a clear sign that something is wrong. None should be ignored. By identifying the problem and dealing with it appropriately, managers may be able to prevent violence from happening. Some behaviors require immediate police or security involvement, others constitute actionable misconduct and require disciplinary action, and still others indicate an immediate need for an Employee Assistance Program referral. Behaviors and attitudes that may indicate disruptive, threatening, or violent behavior include the following:
  - Behaviors:
    - Upset over recent event(s) (work or personal crisis)
    - Recent major change in behavior, demeanor, or appearance
    - Recently has withdrawn from normal activities, family, friends, and co-workers
    - Intimidating, verbally abusive, or harasses or mistreats others
    - Challenges/resists authority
    - Blames others for problems in life or work; suspicious, holds grudges
    - Uses/abuses drugs and/or alcohol
    - Unwelcome obsessive romantic attention
    - Stalking
    - Makes threatening references to other incidents of violence
    - Makes threats to harm self, others, or property
    - Weapons – has or is fascinated with weapons
    - Has known history of violence
    - Has communicated specific proposed act(s) of disruption or violence
  - Attitudes:
    - Is isolated or a loner
    - Morally superior, self-righteous
    - Feels entitled to special rights and that rules don't apply to them
    - Feels wronged, humiliated, degraded; wants revenge
    - Feels without choices or options for action except violence.

WORKPLACE VIOLENCE



- Pre-employment screening is an important part of workplace violence prevention. Prior to hiring an employee, the organization should check with its servicing personnel office and legal office, if necessary, to determine what pre-employment screening techniques (such as interview questions, background and reference checks, and drug testing) are appropriate for the position under consideration and are consistent with Federal laws and regulations.

Respond – During a Workplace Violence Incident

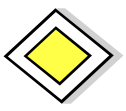
If an employee is aware of a threat, the employee must inform his or her supervisor of the potential for violence. Do not try to evaluate or ignore the seriousness of a threat. All threats, whether considered serious or not, must be immediately reported. Even without an actual threat, employees should report any behavior they have witnessed that they regard as threatening or violent.

If you encounter an **angry or hostile individual**:

- Stay calm. Listen attentively.
- Maintain eye contact.
- Be courteous. Be patient.
- Keep the situation in your control.
- Signal a coworker, or supervisor, that you need help. (Use a duress alarm system or prearranged code words.)
- Do not make any calls yourself.
- Have someone call the FPS, contract guard, or local police.

Confrontations with an **armed man or woman** are the most dangerous of all situations involving violent persons and the most difficult for inexperienced people to deal with. In a situation where there is a potentially armed intruder or an individual exhibiting violent behavior, remember the following:

- Freeze in place and do nothing, letting the potential assailant make the next move.
- Above all, avoid doing anything that could cause the potential assailant to take action.
- Simply standing still and letting the individual "talk it out" may be the only action to take under these extreme circumstances.
- Don’t try any heroics that could cause the potential assailant to react violently.
- Look the potential assailant directly in the eye.
- Keep talking to gain time and calm the gunman.
- Never feel helpless.
- Establish a prearranged word or phrase ("emergency check") that tells other coworkers to summon authorities immediately.
- Keep calm until security guards can disarm the man and remove the potential assailant from the premises.



Recover – After a Workplace Violence Incident

Many individuals are affected by a threat, including the victim, witnesses, bystanders,

WORKPLACE VIOLENCE

as well as friends, relatives, and co-workers of those involved in or witnessing the event. The following are suggested actions to take after a threat has occurred:

- Discuss the circumstances of the incident with staff members. Encourage employees to share information about ways to avoid similar situations in the future.
- Inform victims of their legal right to prosecute perpetrators.
- Offer stress debriefing sessions and posttraumatic counseling services to help workers recover from a violent incident.
- Investigate all violent incidents and threats, monitor trends in violent incidents by type or circumstance, and institute corrective actions.
- Discuss changes in the program during regular employee meetings.

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Listed below are several initial steps management can take when an incident of workplace violence occurs:

- **Ensure a management presence in the work-site.** Managers need to spend ample time with their employees, in the work-site or wherever they may be. Employees need to be reassured of management's concern, and they need to be able to ask questions. Senior management should ensure that immediate supervisors are supported in this role, relieved of unnecessary duties, and not pulled away from their subordinates to write lengthy reports or prepare elaborate briefings.
- **Share information with employees.** Employees will have many questions, and they need answers – often more than once – if they are to resolve the experience for themselves. Information will develop over time, so information strategies need to be simple and fluid. A notice board at the elevator or a recorded message on a "hotline" number may suffice for the basics, and a user-friendly system for individual questions should be established.
- **Include union leadership.** Union representatives can help in reassuring employees after an incident and in getting information to employees.
- **Bring in crisis response professionals.** Before an incident ever occurs, the planning group should identify trained mental health professionals in the agency's Employee Assistance Program or the community who would be available to respond in the event of an incident. When an incident occurs, involve these emergency mental health consultants as soon as possible. They will generally meet with management first, working down the chain, ultimately meeting with line employees. Based on what the consultants learn, they will offer services such as debriefing and defusing and informal counseling, perhaps in the work area.
- **Support informal debriefing.** The formal debriefing is not the end of the recovery process. Provide opportunities for employees to talk informally with one another when they feel a need to discuss the experience. A comfortable break area and flexibility about break times may be all that is needed.
- **Support care giving within work groups.** Keep work groups together as much as possible, and try not to isolate employees from their normal support groups at work. Show respect and support for employees' efforts to care for one another.
- **Handle critical sites with care.** Initially, the site of a violent incident will be secured as a crime scene. After the authorities are finished with it, management needs to be sensitive to a number of issues. It is helpful if employees don't have to come back to work and face painful

reminders such as bloodstains or broken furniture. On the other hand, the area should not be so "sanitized" that it gives the appearance that management is pretending nothing happened. If someone has died, that person's work area will be a focus of grieving, and it needs to be respected as such.

- **Buffer those affected from post-event stresses.** Effective coordination with the media and timely dissemination of information can help reduce media pressure on those who are the most vulnerable. Assistance with benefits and other administrative issues can reduce the burden on victims and families.
- **Help employees face feared places or activities.** Returning soon, if only briefly, to a feared site can help prevent lasting effects such as phobic responses. Having a friend or loved one along, or being supported by close work associates, may make the first step much easier.
- **Remember the healing value of work.** Getting back to work can be reassuring, and a sense of having a mission to perform can help the group recover its morale. But the return to work must be managed in a way that conveys appropriate respect for the deceased, the injured, and the traumatized.

Formal crisis intervention processes for victims of critical incidents, such as workplace violence, have been used and recommended by mental health professionals for years.

SUSPICIOUS OR UNLAWFUL ACTIVITY

General Information

Suspicious or unlawful activity within or surrounding government facilities can include the following:

- **Suspicious persons** observed inside or surrounding the facility; the appearance of suspicious persons may be a precursor to a criminal or terrorist act. Keep in mind that suspicious activity is not limited to outsiders; disgruntled or mentally unstable employees may also pose a threat.
- **Theft** of money, property, or information without force or threat of force against the victims including:
  - ***Identity theft*** – the fastest-growing crime in America, affecting half a million new victims each year. Identity theft or identity fraud is the taking of a victim's identity to obtain credit, use credit cards from banks and retailers, steal money from a victim's existing accounts, apply for loans, establish accounts with utility companies, rent an apartment, file bankruptcy, or obtain a job using the victim's name.
  - ***Vandalism*** – the willful destruction or defacing of property. From obscene and violent language scrawled on a public bathroom door to elaborate murals on a brick wall, graffiti appears in many forms. Graffiti is often the first sign that gangs are taking over a neighborhood.
- **Conduct** on federal property that is specifically prohibited by FMR Title 41 CFR Subchapter C, Part 102-74 Facility Management; Subpart C: Conduct on Federal Property. Several examples include:
  - ***Disturbances*** including loitering, disorderly conduct, or exhibiting other conduct on property that creates loud or unusual noise or a nuisance.
  - ***Gambling***, including participating in games for money or other personal property, operating gambling devices, conducting a lottery or pool, or selling or purchasing of numbers tickets.
  - ***Possession and use of narcotics*** and other drugs, including being under the influence and using or possessing any narcotic drugs, hallucinogens, marijuana, barbiturates, or amphetamines
  - ***Possession of explosives or weapons*** except for those specifically authorized.

The following sections provide information on how to prepare for the occurrence of suspicious or unlawful activity, actions to take if such activity occurs, and suggestions on how to safely recover afterward. Actions are based on a compilation of recommendations from the following references:

National Crime Prevention Council

http://www.ncpc.org/

Federal Bureau of Investigation

http://www.fbi.gov/becrimesmart.htm

SUSPICIOUS OR UNLAWFUL ACTIVITY

Prevent and Protect – Before Suspicious or Unlawful Activity

Many unlawful activities can be prevented through occupant awareness and vigilance. Following are suggestions that occupants can take to minimize risk of unlawful activity, as well as information on how to identify possible suspicious activity that may lead to an unlawful act:

Recognize Suspicious Persons

- Challenge wandering or "lost" visitors walking the halls and escort them to the right office or to the "house phone" to call their intended contact.
- Watch out for "head poppers" who open the wrong doors and pretend to be looking for a specific office or person. If they act nervous or head immediately for the nearest exit, remember their description and call security.
- Arrange office space so that unescorted visitors can be easily noticed. Have staff follow strict access control procedures; don't allow exceptions.
- Report suspicious people or activity to authorities immediately.

Secure Property

- Lock all drawers and cabinets, office doors, conference rooms, or storage rooms that are regularly unoccupied.
- Make sure to close and lock all doors and windows; activate alarm systems if present.
- Keep closets, service openings, and telephone and electrical closets locked at all times. Protect crucial communications equipment and utility areas with an alarm system.
- Never leave a laptop in an unlocked office, meeting area, or other unsecured area.
- Never leave keys, money, checks, or valuables of any kind out in plain view, in unsecured areas, or in jacket or coat pockets.
- Never leave packages near doorways, on desks, or in lobbies, conference rooms, break rooms, cafeterias, rest rooms, or other public areas.

Protect Yourself

- Be discreet – never advertise plans for being away to visitors you don’t know or people calling your place of work.
- Report broken or flickering lights, dimly lit corridors, and doors and windows that are broken or don’t close or lock properly. Don’t assume someone else will do it.
- Avoid stairwells and other isolated areas. Try not to ride the elevator alone with a suspicious person.
- Observe the elevator interior before entering. Wait until the next elevator if you are uncertain of any occupant. Females riding the elevator alone should always stand near the control panel. If accosted, press all buttons. If a suspicious person enters the elevator, exit before the door closes. Before exiting from the elevator, observe the corridor for suspicious activity.
- Keep publicly accessible restroom doors locked and set up a key control system. If there is a combination lock, only office personnel should open the lock for visitors.
- Stay alert and tuned in to your surroundings, whether on the street, in an office building or shopping mall, driving, or waiting for the bus or subway.
- Send a message that you're calm, confident, and know where you're going.

SUSPICIOUS OR UNLAWFUL ACTIVITY

- Be realistic about your limitations. Avoid places or situations that put you at risk.
- Know the neighborhood where you live and work. Check out the locations of police and fire stations, public telephones, hospitals, restaurants, or stores that are open and accessible.
- Avoid establishing predictable activity patterns. Most of us have daily routines, but never varying them may increase your vulnerability to crime.
- Remember these parking lot security tips:
  - Park only in a well lit and a highly visible location.
  - If you cannot see 100 feet at night, park elsewhere.
  - Park in higher traffic areas of the lot, if possible.
  - Move your car during the day to improve its location.
  - Remove all interior valuables from plain view.
  - Lock your doors and roll up all windows.
  - Use a highly visible steering wheel or brake pedal locking device.
  - Use a car alarm and alarm decals, if possible.
  - Use valet parking for greater personal security, if available.
  - Stay alert at all times. If you see a suspicious person approaching you, change directions. If he appears to follow, look him in the eyes and yell at him to stop. However, do not stand your ground and confront him. Get away, if you can. Run toward other people and point him out. You can always apologize later if you are mistaken. If no other people are close by, go into the closest store or office building and call the police.

To prevent individual identify theft

- Do not give out personal information over the phone, through the mail, or over the Internet unless you have initiated the contact or know whom you're dealing with. Identity thieves will pose as bank representatives, Internet service providers, and even government officials to get you to reveal identifying information.
- Shred all documents, including pre-approved credit applications received in your name, insurance forms, bank checks and statements you are discarding, and other financial information.
- Do not use your mother's maiden name, your birth date, the last four digits of your social security number, or a similar series of numbers as a password for anything.
- Minimize the identification information and the number of cards you carry. Take what you'll actually need. Don't carry your social security card, birth certificate, or passport, unless necessary.
- Make a list of all your credit card account numbers and bank account numbers with customer service phone numbers and keep it in a safe place.
- Carry only the identification information and the number of credit and debit cards that you'll actually need.
- Secure your mailbox (thieves search mailboxes for pre-approved credit offers, bank statements, tax forms, or convenience checks).
- Secure personal information in your home and in your workplace.

SUSPICIOUS OR UNLAWFUL ACTIVITY

- Double check that mailboxes are official US Postal Service collection boxes before you deposit your mail.

Respond – During Suspicious or Unlawful Activity

In some cases, occupants may encounter suspicious or unlawful activity as it is occurring. Following are suggested actions to take:

- Do not attempt to intervene physically or deal with the situation yourself. It is critical that the police take charge of any incident that can or does involve physical harm.
- Get yourself and others to safety as quickly as possible.
- Immediately dial authorities for any situation where a person's life or property is in danger or threatened such as:
  - Threats of physical harm toward you, others, or him/herself
  - Individual with a weapon
  - Individual behaves in a manner that causes you to fear for your own or another's safety
  - Crimes in progress
  - Violent incidents or specific threats of imminent violence
  - Attempted suicides
  - Strangers forcibly entering a facility or office
  - Strangers carrying materials or equipment from the facility or office
  - Group of persons with weapons preparing to fight
  - Shootings
  - Stabbings
  - Armed robberies
  - Rape

A non-emergency call is a situation where a person's life and property is not in immediate danger. Included under this definition are crimes against property and crimes against persons where the victim is not injured and offenders are not at or near the scene. However, a police officer is needed to respond, investigate, and take a report. Example non-emergency calls include the following:

- Smashed doors or windows in the facility
- Abandoned car on the street near the facility
- Persons loitering near the facility
- Information and rumors of impending crimes
- Persistent anonymous calls
- Suspicious looking persons following your moves while commuting to or from work
- Late discovery of crimes against persons or property

Recover – After Suspicious or Unlawful Activity

In some cases, occupants may discover that an unlawful act has occurred. Occupants should notify officials and provide information as requested by authorities. Following

SUSPICIOUS OR UNLAWFUL ACTIVITY

are suggested actions to take after an unlawful activity has occurred:

- Discuss the circumstances of the incident with staff members. Encourage employees to share information about ways to avoid similar situations in the future.
- Investigate all incidents and threats, monitor incident trends by type or circumstance, and institute corrective actions.
- Discuss changes in the program during regular employee meetings.

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