Guidelines for Creation of Inclement Weather Preparedness Plan©

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Purpose

Planning and preparing for severe weather can make the difference between being negatively impacted by a disaster or keeping your operations and personnel safe. The ability to maintain or quickly reestablish business operations or organization processes requires a focus on preparedness, planning, and relationships with external partners and community leaders.

This document provides you, as an employer with tools and resources to support your preparedness efforts and to help you be prepared.

The official season for hurricanes in the United States is June 1 through November 30. The number and severity of storms fluctuates from year to year determined by atmospheric and ocean temperatures.

5 WAYS TO PREPARE YOUR WORKPLACE FOR A WEATHER EVENT

✔	Develop a Comprehensive Plan
✔	Determine procedures and individual crisis management responsibilities
✔	Coordinate with others
✔	Prepare employees
✔	Review emergency plans annually

Definitions

Contraflow: A contraflow is a situation in which vehicles traveling on a main road in one direction must use lanes that are normally used by traffic traveling in the opposite direction, due to specific routes to facilitate overall evacuation flow.

Flash Flood: A flood that rises and falls quite rapidly with little or no warning, usually as the result of intense rainfall over a relatively small area. Flash floods can be caused by situations such as a sudden excessive rainfall, the failure of a dam, or the thaw of an ice jam.

Flood: High water flow or an overflow of rivers or streams from their natural or artificial banks, inundating adjacent low-lying areas.

Hurricane: The name for a tropical cyclone with sustained winds of 74 miles per hour (65 knots) or greater in the North Atlantic Ocean, Caribbean Sea, Gulf of Mexico, and in

the eastern North Pacific Ocean. This same tropical cyclone is known as a typhoon in the western Pacific and a cyclone in the Indian Ocean.

Tropical Depression (not a hurricane)	38 mph or less (62 km/hr. or less)
Tropical Storm (not a hurricane)	38-73 mph (63-118 km/hr.)
Category 1	74-95 mph (119-153 km/hr.)
Category 2	96-110 mph (154-177 km/hr.)
Category 3	111-129 mph (178-208 km/hr.)
Category 4	130-156 mph (209-251 km/hr.)
Category 5	156 greater (252 km/hr.)

Hurricane Eye: The center of a tropical storm or hurricane, characterized by a roughly circular area of light winds and rain-free skies. An eye will usually develop when the maximum sustained wind speeds exceed 78 mph. It can range in size from as small as 5 miles to up to 60 miles, but the average size is 20 miles. In general, when the eye begins to shrink in size, the storm is intensifying.

Tornado: A violently rotating column of air in contact with and extending between a convective cloud and the surface of the earth. It is the most destructive of all storm-scale atmospheric phenomena. They can occur anywhere in the world given the right conditions but are most frequent in the United States in an area bounded by the Rockies on the west and the Appalachians in the east. Tornadoes are extremely dangerous, from the high winds often more than 300mph, to the debris carried by these high winds. Tornadoes are so prevalent in certain states, including Oklahoma, Texas, Kansas and Missouri that the area is named “tornado alley”. Minnesota lies on the northern edge and sees around 26 tornadoes per year, an average of more than 2 a month.

Tropical Depression: A tropical depression is defined as an organized system of clouds and thunderstorms moving in a circular motion with maximum sustained winds of 38 miles per hour or less.

Topical Storm: A tropical storm develops when the winds within a tropical disturbance reach 39 miles per hour and move in a circular pattern in a counter clockwise direction.

Watch: A watch means that hazardous weather is possible.

Warning: A forecast issued when severe weather has developed, is already occurring and reported, or is detected on radar. Warnings state a hazard or imminent danger, such as tornadoes, severe thunderstorms, flash and river floods, winter storms, heavy snows, etc.

Weather Outlook: In National Weather Service terminology, a hazardous weather outlook is a weather statement issued to provide information of potential severe weather events within the next seven days.

Winter Storms: A winter storm is an event in which varieties of precipitation are formed that only occur at low temperatures, such as snow or sleet, or rainstorm where ground temperatures are low enough to allow ice to form (i.e., freezing rain).

1. **Freezing Rain and Sleet**: occur by the same general process: liquid raindrops in a layer of warm air well above the surface fall into a layer of freezing air hugging the ground. The difference between these two wintry precipitation types depends on the thickness of the layer of freezing air.
2. **Winter Weather Advisory**: is issued by the National Weather Service of the United States when a low-pressure system produces a combination of winter weather (snow, freezing rain, or sleet) that presents a hazard, but does not meet warning criteria.

Writing Your Inclement Weather Plan

Creating a Preparedness Plan is critical. Training your employees on your plan in order to successfully implement it is vital. Some of the major areas to address are:

- Separate business locations need separate plans
- Determine what equipment and inventory need to be moved to a separate and secure location (higher ground or indoor storage).
- Include a list of tasks for phases, i.e., pre-storm, during the storm, post-storm
- Clearly define specifics for the protection of buildings, data, records, equipment and inventory
- Emergency Kit for each location that is stocked with essential supplies
- Decide which employees will be available to help with hurricane preparation. Do not assume everyone will be available, especially if a mandatory evacuation is ordered
- Identify who will implement the plan and assign necessary tasks
- Clearly communicate your company policy, i.e., when employees will be released from work, how to receive updates, who to contact for return-to-work information.
- When creating your own plan to check with your local community and review theirs. Local officials should have detailed information for your immediate area.
- Establish weather watch monitoring team. Several weather applications the team can use just to name a few:
    a. City of Houston - https://www.accuweather.com/en/us/houston-tx/weather-radar
    b. The Weather Channel - https://weather.com/
    c. For planning tools and additional information visit – https://fema.gov

Employee Training

Communicate expectations: Employees want to know, “What do you expect of me?”

- Employee handbook: include organization’s plan for emergency response
- Employee orientation: incorporate expectations of the employee during and following business disruption
- Staff meetings: periodically include information about the business plan and expectations
- Education and training: educate employees on the emergency response and business continuity plan and train them in their areas of responsibility. Periodic tests

of the plans to determine what works, what needs to be fixed, and to maintain the plan.
- Preparedness at home: encourage employees to have emergency preparedness plan for their families.
- Safety Meetings – review OSHA recommended requirements for Personal Protective Equipment (PPE) selection for cleanup and recovery.

Pre-Storm and Post-Storm Implementation

There are also some simple steps you should take prior to hurricane season to ensure a successful pre-and post-storm implementation.

- Update emergency contact list for main office and project locations.
- Meet with all essential employees to make sure they understand their role and the plan.
- Update the plan with any new locations.
- Make sure the kits are stocked with all necessary items
- Test all emergency generators and ensure there is enough fuel available.
- Contact all vendors/contractors to go over your post-storm expectations of services
- Communicate business continuity expectations to all employees and ensure they have an appropriate contact list
- Take the necessary pre-storm photos needed for insurance purposes
- Update and post evacuation routes for employees
- Stock pile emergency supplies such as sandbags, plywood, chains and cleaning supplies.
- Determine storage of confidential documents.

Protection of Facilities and Equipment

- Fleets move all vehicles into a garage or higher ground. Park them as closely together as possible. Remove all keys and secure them in a separate area.
- Unplug all electrical equipment including computers, refrigerators, coffee makers, calculators, fax machines, printers, copy machines, phones, TV, etc. (consider covering electronic items with plastic).
- Cover large windows and glass doors which can be blown in by hurricane force winds with plywood.
- Place all loose desk articles in drawers and cabinets
- Place all paperwork, paper files and computer towers in a secure location above ground level to avoid water damage
- Secure all loose outside items that can’t be stored
- Secure outside dumpsters, if possible have them cleaned out
- Strongly anchor any portable storage buildings
- Place sand bags outside doors
- Instruct staff to take home all personal items, including tools and toolboxes
- Remove all supplies from floor
- Remove all checks and cash to a secure location

- Back up computer records and store backup (thumb drive, external drive, disk) at a separate secure location.
- Communicate pre-storm expectations to staff (dismissal time, etc.) as well as their responsibility to contact management immediately after the storm passes to determine when to return to work.
- As much as possible, attempt to mitigate additional damage to buildings and inventory by sealing window and door openings with weather proof material.

Recovery

- Monitor radio and television broadcasts to determine if you will be allowed access to your business location(s).
- Assess damage to the exterior of your buildings and if they appear structurally unsafe do not enter.
- Be on the lookout for live power lines that may be present
- Confirm that the buildings electrical system is dry and utility power is reliable before turning on the main breakers.
- Take detailed photographs or videos of damage to your buildings and inventory for documentation prior to the site being cleaned up.
- Determine who will be first responders for office recovery.
    a. How will wet documents, furniture, carpet be disposed off
- How do we open for business safely?
    a. How to have payroll completed?
- Review OSHA website "Keeping Workers Safe During Disaster Cleanup and Recovery" several other OSHA facts sheets located in the website.

Post Evaluations – Lessons Learned

After the event all response team members and within one week of the event should gather together and answer the following questions:

- Were company / emergency contact lists up to date for all locations?
- Were contacts made to all affected personnel and in an efficient manner (including office and jobsite locations)? How could it be improved?
- Were emergency kits up to date including generators?
- Were preparations and / or emergency responses made in a timely manner?
- Were photos taken before/after?
- Was there any company property damaged because of the event? (If so list the damages and what preparations could have been done differently?
- Were there any loose construction debris found on/off the project(s) after the event? If so were there any damages caused by the debris and what could be done differently to prevent the loose debris?

JOBSITE WEATHER EVENT CHECKLIST

Project Name: _____

Superintendent: _____ Date: _____

Action Item	Completed	Not Yet Completed	Date to Be Completed
Create Emergency Contact List			
Take photos inside and outside of structure			
Control shipments of materials and equipment			
Store and secure materials and equipment on site			
Pickup loose debris and broom clean			
Remove trash from dumpsters			
Secure empty dumpsters			
Remove loose materials equipment from roof			
Clean roof area /roof drains			
Remove Storm Water Controls			
Remove and store jobsite signage			
Cover windows with plywood if time allows			
Fuel equipment, trucks and safety gas cans			
Lower all buckets and blades on all equipment			
Remove boards from scaffolding and secure all scaffold frames			
Fly down, empty and secure all portable restrooms			
Store jobsite ladders			
Make sure critical documents are stored properly such as plans, as-builts drawings, city plans, permits and anything else that maybe difficult to replace			
Tower Crane			
Coordinator a Pre-Hurricane meeting with Vendor			
Remove signage and temporary lights			
Disconnect power			
Weather vane			
Check tower crane supporting system			
Operator to move all loose items from cab			
Operator will lock and secure cab			
Discuss wind speeds with Vendor			
Mobile/Crawler Crane			

Coordinate a Pre-Hurricane Meeting with Subcontractor			
Lower boom to the ground			
Swing brake in locking position			
3rd party inspection after storm event			
Order Additional Supplies			
Plywood			
Pumps			
#9 tie wire			
Rope			
Hose			
Power cords			
Plastic sheathing			
Generators			
Radios			
Batteries			

SECURING YOUR FACILITY

Action Item	Completed	Not Yet Completed	Date to Be Completed
Create Emergency Contact List			
Take photos inside and outside of structure			
Control shipments of materials and equipment			
Distribute the necessary supplies from the kit			
Unplug all electrical equipment including terminals, refrigerators, coffee makers, calculators, fax machines, printers, copy machines, computers, phones, cable TV, etc.			
Cover all computers, printers, phones, fax, copy machines and other equipment with heavy plastic and secure			
Protect smaller windows from wind gust and flying debris by applying waterproof tape in a criss-cross pattern			
Brace inward-opening exterior doors and roll-down doors on the inside			
Cover large windows and glass doors with plywood			
Place all loose desk articles in drawers and cabinets			
Move all shop torches and welders to safe storage locations			
Place all paperwork and paper files in a secure location above ground level to avoid water damage			
Secure all loose outside signs or awnings that could be blown loose and remove or secure in place			
Secure outside dumpster			
Anchor any portable storage buildings			
Secure items on roof			
Shut down gas pumps			
Place sand bags outside doors			
Instruct staff to take home all personal items, including tool/toolboxes			

Company Information *(Physical addresses)*

Business Location:

Business Name:

Physical Address:

Phone Number:

Webpage:

Alternate Business Location in the event of a natural disaster:

Business Name:

Physical Address:

Phone Number:

Emergency Contact Information *(Include any numbers needed to reach an outside line)*

Emergency: 9-1-1

Non-emergency police/fire:

Emergency Planning Committee and Contacts *(Personnel developing the plan)*

Name:	**Name:**
Title:	Title:
Name:	**Name:**
Title:	Title:

Emergency Management Contacts *(Personnel who will manage the response to the actual crisis)*

Company Emergency Manager	**Alternate**
Contact Name:	*Contact name*:
Phone Number:	*Phone Number*:
Alt. Phone:	*Alt. Phone*:
Cell Phone:	*Cell Phone*:
*Email***:**	*Email*:

Building Operations Emergency Manager:	**Alternate**
Contact name:	*Emergency Contact*:
Phone Number:	*Phone Number*:

Alt. Phone:

Cell Phone:

Email:

Alt. Phone:

Cell Phone:

Email:

Emergency/Disaster Related Contacts and Suppliers *(People needed to restore services)*

Building Alarm

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

Insurance Agent

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

Fiber Optic Provider

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

Phone Vendor

Company Name:

Contact Person :

Phone Number:

Alt. Phone:

Cell Phone:

Network Administrator

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

Website Administrator

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

Building Maintenance

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

Janitorial

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

Landscaper

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

HVAC

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

Plumbing

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

Electrical

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Cell Phone:

Gas Company

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Outage/Service Website:

Electrical Company

Company Name:

Contact Person:

Phone Number:

Alt. Phone:

Outage/Service Website:

Supplies for Alternate Location *(What will you require to get your back-up location up and running e.g. power, communications, computer systems, office supplies, security, machines, vehicles, equipment etc. Identify whether they are on hand or where they will be obtained)*

1.

2.

3.

4.

5.

Coordinating with Others *(Nearby Businesses and Others Important to Our Planning and Response)*

Company Name:

What do they do?

Contact Person:

Email:

Phone Number:

Company Name:

What do they do?

Contact Person:

Email:

Phone Number:

Alt. Phone:

Cell Phone:

Company Name:

What do they do?

Contact Person:

Email:

Phone Number:

Alt. Phone:

Cell Phone:

Alt. Phone:

Cell Phone:

Company Name:

What do they do?

Contact Person:

Email:

Phone Number:

Alt. Phone:

Cell Phone:

Critical Operations *(What operations are considered to be vital to recover from the disaster e.g. media and public relations, human resources, operations and technology, payroll, accounting etc. An action plan for each critical operation should be developed)*

Critical Operation	**Person in Charge**	**Action Plan?**

Suppliers and Contractors *(Who will provide supplies and materials after a disaster. Make contact prior to a disaster to ensure they are still able to fulfill expectations. Have back up suppliers for critical equipment in the event the primary suppliers are affected by the disaster e.g. generators.)*

Company Name:

What will they supply?

Contact Person:

Email:

Phone Number:

Alt. Phone:

Cell Phone:

Company Name:

What will they supply?

Contact Person:

Email:

Phone Number:

Alt. Phone:

Cell Phone:

Company Name:

What will they supply?

Contact Person:

Email:

Phone Number:

Alt. Phone:

Cell Phone:

Company Name:

What will they supply?

Contact Person:

Email:

Phone Number:

Alt. Phone:

Cell Phone:

Evacuation Plan for (Company Name and Location)

- We have developed these plans in collaboration with neighboring businesses and building owners to avoid confusion and gridlock. We have located, copied, and posted building and site maps.
- Exits are clearly marked.
- We will practice an evacuation and shelter in place twice a year.
- **Refer to the 1910.38 OSHA Emergency Action Plan for additional information.**

If we must leave the workplace quickly, please proceed out of your office, meeting space or commons area notifying any guests in the building. Please use the building evacuation routes that are posted throughout the building. Locate the nearest exit and gather in the designated gathering location. Do not use the elevator. Check the bathrooms for other staff and guests.

Warning System: General Alarm – Fire, Flood, Tornado, Chemical, Terroristic. The alarms are:

- Evacuation:
- Shelter in place:

We will test the warning system and record results two (2) times a year.

The assembly site for this facility is: _____

The assembly site manager is responsible for managing and coordinating the assembly site:

Assembly site manager

Contact Name:

Phone Number:

Cell Phone:

*Email***:**

Alternate assembly site manager

Contact name:

Phone Number:

Cell Phone:

Email:

Responsibilities of the Assembly Site Manager Include:

1.
2.
3.

The shut-down manager is responsible for coordinating with first responders and building related issues:

Shut-down manager	**Alternate shut-down manager**
Contact Name:	*Contact name*:
Phone Number:	*Phone Number*:
Cell Phone:	*Cell Phone*:
*Email***:**	*Email*:

Responsibilities of the Shut-Down Manager Include:

1.
2.
3.

The Shut-Down Manager is responsible for issuing the all clear.

Shelter in Place (for Company Name and Location)

We have talked to co-workers about which emergency supplies, if any, the company will provide in the shelter location and which supplies individuals might consider keeping in a portable kit personalized for individual needs.

Supplies that will be maintained in the shelter location include:

1.
2.
3.
4.
5.

If we must take shelter quickly close all doors and follow instructions from this plan.

For this location the shelter in place location(s) are:

1.
2.

Storm Shelter Location:

The Assembly Site Manager (or alternate) will coordinate the shelter in place and the Shut-Down Manager (or alternate) will coordinate with first responders and building related issues.

Responsibilities Include:

1.

2.

3.

The Shut-Down Manager will be responsible for issuing the all clear.

Communication

We will communicate our emergency plans with employees and business associates in the following way:

- Website:
- Email:
- Phone:

In the event of a disaster we will communicate with employees in the following way:

- Website:
- Email:
- Phone:
- Text Message:

A calling tree will be set up by:

- Home location
- Work assignment or department

Each year prior to the June 1st start of hurricane season and January 2nd at the beginning of the year we will update employee contact information. We also encourage worker to update their contact information as it occurs.

Weather Monitoring and Local Emergency Management Contacts

Weather can be monitored on radio station:

Houston Emergency Management website:

Harris County Emergency Management website:

Texas Emergency Management website:

FEMA website:

Emergency Protocols

- In the event of a weather event such as a hurricane, a generator may be needed in the event of a long-term power outage. Preparations and negotiations should begin one week out from projected landfall.
- Once the decision to evacuate the building has been made, the technology coordinator will be responsible for communicating the directive as to when the phone system should be transferred to the answering service.
- An Emergency Desk Manual will be placed in the Employee Handbook that includes scripts for communicating evacuation protocol to staff and guests, staff contact information, instructions for transferring phones to answering service in an emergency situation.

Cyber Security

To protect our computer hardware, we will:

- Make a copy of all designated critical records. The emergency planning committee will solicit input on critical records from each department/functional area. Critical records include:
    1.
    2.
    3.
    4.
- Move computers to desk level in the event of flooding to the first floor
- Secure the building

To protect our computer software, we will:

- Make a copy of critical records and store off site at: _____

If our computers are destroyed we will use back-up computers at: _____

Records Backup *(Determine all the records you have that may require back-up)*

The _____ is responsible for backing up our critical records including payroll and accounting systems. Back-up records including a copy of this plan, site maps, insurance policies, bank account records and computer back-ups to be stored onsite in a secure location away from potential effects of the natural disaster such as flooding. Daily backup tapes that contain data from the last two weeks of

business will be held in a secure location off site at a secure location located at _____. The most recent daily tapes are kept by _____ in a secure location off site.

If our accounting and payroll records are destroyed, we will provide for continuity in the following ways:

Backup payroll records are stored electronically at: _____

Point of Contact: _____

Accounting records will be restored from: _____

Point of Contact: _____

Other shared files and my document files can be restored from backup tapes.

Point of contact: _____

Training

Individuals with assigned responsibilities will be trained on their duties at least annually or when there are changes to the plan.

Annual Review

This plan will be reviewed annually and updated during the year as changes occur. This plan was last reviewed on _____.

Helpful Online Resources

National Hurricane Center: www.nhc.gov

FEMA: www.fema.gov

City of Houston - https://www.accuweather.com/en/us/houston-tx/weather-radar
The Weather Channel - https://weather.com/
For planning tools and additional information visit – https://fema.gov

https://gov.texas.gov/hurricane

www.nhc.noaa.gov/outreach

www.osha.gov/dts/weather/hurricane

http://prepare.readyharris.org/Evacuation-Map

As the storm approaches and during the event local TV stations and websites provide up to date weather conditions

www.click2houston.com
www.chron.com
www.khou.com
https://abc13.com/

TOOLBOX TALKS

OSHA FactSheet

Using Portable Generators Safely

Portable generators are internal combustion engines used to generate electricity. They are useful when temporary or remote power is needed, and are commonly used during cleanup and recovery efforts following disasters such as hurricanes, tornadoes, etc. This fact sheet discusses specific hazards inherent with the use of generators and also provides helpful information to ensure that workers and others using such equipment remain safe.

Hazards Associated with Generators:

- Shocks and electrocution from improper use of power or accidentally energizing other electrical systems.
- Carbon monoxide from a generator's exhaust.
- Fires from improperly refueling a generator or inappropriately storing the fuel for a generator.
- Noise and vibration hazards.

Shock and Electrocution

The electricity created by generators has the same hazards as normal utility-supplied electricity. It also has some additional hazards because generator users often bypass the safety devices (such as circuit breakers) that are built into electrical systems. The following precautions are provided to reduce shock and electrocution hazards:

- Never attach a generator directly to the electrical system of a structure (home, office, trailer, etc.) unless a qualified electrician has properly installed the generator with a transfer switch. Attaching a generator directly to a building electrical system without a properly installed transfer switch can energize wiring systems for great distances. This creates a risk of electrocution for utility workers and others in the area.
- Always plug electrical appliances directly into the generator using the manufacturer's supplied cords or extension cords that are grounded (3-pronged). Inspect the cords to make sure they are fully intact and not damaged, cut or abraded. Never use frayed or damaged extension cords. Ensure the cords are appropriately rated in watts or amps for the intended use. Do not use underrated cords—replace them with appropriately rated cords that use heavier gauge wires. Do not overload a generator; this can lead to overheating which can create a fire hazard.
- Use ground fault circuit interrupters (GFCIs), especially where electrical equipment is used in or around wet or damp locations. GFCIs shut off power when an electrical current is detected outside normal paths. GFCIs and extension cords with built-in GFCI protection can be purchased at hardware stores, do-it-yourself centers, and other locations that sell electrical equipment. Regardless of GFCI use, electrical equipment used in wet and damp locations must be listed and approved for those conditions.
- Make sure a generator is properly grounded and the grounding connections are tight. Consult the manufacturer's instructions for proper grounding methods.
- Keep a generator dry; do not use it in the rain or wet conditions. If needed, protect a generator with a canopy. Never manipulate a generator's electrical components if you are wet or standing in water.
- Do not use electrical equipment that has been submerged in water. Equipment must be thoroughly dried out and properly evaluated before using. Power off and do not use any electrical equipment that has strange odors or begins smoking.

Carbon Monoxide Poisoning

Carbon monoxide (CO) is a colorless, odorless, toxic gas. Many people have died from CO poisoning because their generator was not adequately ventilated.

- Never use a generator indoors or in enclosed spaces such as garages, crawl spaces, and basements. NOTE: Open windows and doors may NOT prevent CO from building up when a generator is located in an enclosed space.
- Make sure a generator has 3 to 4 feet of clear space on all sides and above it to ensure adequate ventilation.
- Do not use a generator outdoors if its placement near doors, windows, and vents could allow CO to enter and build up in occupied spaces.
- If you or others show symptoms of CO poisoning—dizziness, headaches, nausea, tiredness—get to fresh air immediately and seek medical attention. Do not re-enter the area until it is determined to be safe by trained and properly equipped personnel.

Fire Hazards

- Generators become hot while running and remain hot for long periods after they are stopped. Generator fuels (gasoline, kerosene, etc.) can ignite when spilled on hot engine parts.
- Before refueling, shut down the generator and allow it to cool.
- Gasoline and other generator fuels should be stored and transported in approved containers that are properly designed and marked for their contents, and vented.
- Keep fuel containers away from flame producing and heat generating devices (such as the generator itself, water heaters, cigarettes, lighters, and matches). Do not smoke around fuel containers. Escaping vapors or vapors from spilled materials can travel long distances to ignition sources.
- Do not store generator fuels in your home. Store fuels away from living areas.

Noise and Vibration Hazards

- Generator engines vibrate and create noise. Excessive noise and vibration could cause hearing loss and fatigue that may affect job performance.
- Keep portable generators as far away as possible from work areas and gathering spaces.
- Wear hearing protection if this is not possible.

For more complete information:

OSHA Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov

(800) 321-OSHA

DSTM 9/2005

WEATHER EMERGENCIES

Safety Tool Box Talk

Each year thunderstorms, lightning, and tornadoes kill or injure hundreds of people. What can we do to protect ourselves and others from these natural dangers?

First, some plans of action are necessary, including precautions to be taken and appropriate responses when the situation occurs. We've already reviewed our company's, but what should you do when you're at home or outside.

Specific danger signals to watch for include:

- Severe thunderstorms with frequent lightning, heavy rain, strong winds, and power failure.
- Hail-pellets of ice from dark-clouded skies
- A roaring noise
- A funnel, a dark, spinning "rope" or column from sky to ground

When skies looking threatening, listen to a local radio or television station. The National Weather Service Tracks weather systems with radar and can usually give adequate warning of severe weather conditions.

Remember, a tornado watch means that conditions are right for a tornado. Be prepared to take shelter and keep informed of the latest storm conditions. A tornado warning means that a tornado has been sighted and confirmed in the area. When a warning is issued, take cover immediately.

Abandon mobile homes or cars and find cover in a well construction building. If no suitable buildings are nearby, lie flat on the nearest ditch, ravine or culvert, with your hand shielding your head.

In shopping centers or large buildings, look for a designated shelter. The next best place to be would be the basement or a location in the middle of the building, behind an interior wall, or on the lowest floor. Stay away from large windows or other glass.

Severe storms are frequently accompanied by lightning, which can also be a killer. To avoid lightning hazards, find a shelter and avoid standing in small, isolated structures in open areas. Do not use the telephone except for an emergency.

If you are outside, do not stand underneath a natural lighting rod, such as a tall isolated tree in an open area. Avoid projecting above the surrounding landscape, such as by standing on a hilltop, in an open field, or on the beach, or by fishing from a small boat.

Stay away from open water, tractors and other metal farm equipment, motorcycles, scooters, golf carts, and bicycles. Put down you golf clubs and remove metal-spiked golf shoes. Also keep away from wire fences, clotheslines, metal pipes and rails, and other metallic paths that can carry lightning to you from some distance away.

PREPARE FOR NATURAL DISASTERS

Safety Tool Box Talk

Spring is a good time to review your emergency action plan and update it if necessary. Specifically, make sure your plan addresses natural disasters.

For instance, decide whether your company will evacuate or stay on the premises in a company shelter.

Also, the Federal Emergency Management Agency (FEMA) recommends that businesses purchase a National Oceanic and Atmospheric Administration (NOAA) weather radio with a warning alarm tone and battery backup.

Here are some other considerations for different types of natural disasters:

Forest Fires: Train and equip a special fire team at your property. Develop a liaison with forest area authorities. Clear underbrush and maintain fire lanes. Monitor forecasts from the National Weather Service.

Hurricanes: Heed hurricane warnings from the National Weather Service and shut down operations before the weather gets too severe. Send employees home or to onsite or community shelters.

Floods: If your area is prone to flooding, make your business as flood-proof as possible. Identify records and equipment that can be moved to a higher location. Obey local flash flood warnings. Learn the community's evacuation routes.

Tornadoes: Monitor National Weather Service advisories and make sure everyone knows the meaning of tornado warning signals. Use spotters to watch for approaching storms and send employees to appropriate shelters.

Earthquakes: Are unpredictable, but employees should be warned to stay indoors, take cover under sturdy furniture and away from glass windows. If employees are outside, they should avoid buildings and utility wires.

Severe Winter Storms: Establish procedures for facility shutdown and early release of employees. Store food, water, blankets, battery-powered radios, and other emergency supplies for employees who may become stranded at the facility. Provide backup source for critical operations. Arrange for snow and ice removal from parking lots, walkways, and loading docks.

EMERGENCY CHAIN OF COMMAND

Safety Tool Box Talk

If you are faced with an unforeseen emergency at work, such as a fire or explosion, you don't want to waste precious moments trying to figure out what to do and whom to listen to. That's why all workplace emergency plans have a chain of command that links one person with overall responsibility for managing an emergency to others responsible for carrying our specific tasks.

At the top of the chain is the emergency scene commander, a trained employee will issue orders to others during the emergency. This person might be a facility manager, emergency director, or some other supervisor. His or her responsibility will include:

- Assessing the incident to determine if it requires an emergency response.
- Supervising emergency scene coordinators (volunteer employees who are trained in various emergency tasks).
- Coordinating professional responders, such as ambulance, police, and fire departments.
- Directing shutdown of critical workplace equipment or operations.
- Determining if an evacuation is necessary and managing an evacuation.

Emergency scene coordinators should be assigned responsibility for about 20 employees within a work area. They should know how to respond to the emergencies that may occur at your worksite, the evacuation procedures, and how to use emergency communication equipment. They should also be trained in CPR, First Aid, and how to respond to threats of violence. Some of their responsibility should include:

- Knowing who may need assistance during an evacuation and how to assist them.
- Coordinating the emergency activities of the employees.
- Knowing the workplace layout, appropriate escape routes, and areas that employees must not enter during an evacuation.
- Verifying that employees are in designated safe areas after an evacuation.