

SafeSupervisor

YOUR FRONT-LINE MANAGER SAFETY RESOURCE SINCE 1929

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Emergency Planning and Response

Fire, natural disaster, and other emergencies can strike your workplace without warning. While you can't predict them, you can prepare for them and preparedness save lives, prevents injuries; and limits property damage. If that's not motivation enough, being prepared for workplace emergencies may save your business thousands and even hundreds of thousands in safety fines avoided. This Workplan sets out a four-step strategy you can implement over a 30-day period (and beyond) to help ready your workplace and your workforce for an emergency

Step One: Conduct Hazard or Vulnerability Assessment (Day 1-5)

The primary hazards in an emergency such as a fire, chemical release, serious machine malfunction, workplace violence, or natural disaster are often only the beginning of the damage and destruction. You also must think about the secondary hazards that occur because of the initial event. A hazard assessment will shed light on all these possible hazards. Once identified you can prepare your response.

Implementation Strategy: If an EAP is required, the first step in developing it is to perform a hazard assessment to determine which physical or chemical hazards in your workplace could cause an emergency.

Step Two: Identification of Emergency Control Procedures and Written EAP (Day 6-15)

The next step is to use the findings of your hazard assessment to develop a written Emergency Action Plan (EAP). The EAP cannot be one-size-fits-all; each workplace must have its own EAP based on an assessment of its unique hazards and circumstances. The plan must include:

1. All possible emergencies, consequences, required actions, written procedures, and available resources.
2. A detailed list of personnel to contact in an emergency and their role in an emergency.
3. A list of external organizations to contact such as fire, rescue, and ambulance services; hospitals, police department and any government agencies; utility companies; and any industries in nearby that should be informed because of a potential safety risk to their workers and their operations.
4. Floor plans and large-scale maps showing excavation routes, emergency equipment,

hazardous areas (i.e. chemical storage), as well as gas and water lines and other information as required by applicable safety regulations.

Implementation Strategy: An EAP should include personnel assignment, evacuation procedures, alarm and notification systems, and PPE/protective clothing.

1. Personnel Assignments: The EAP should establish a clear chain of command in which all personnel have clearly assigned roles in the event of an evacuation. The EAP should designate:

- A leader with authority to order an evacuation or shutdown.
- An appropriate number of evacuation wardens to help with the evacuation and ensure that everybody is accounted for before evacuating themselves.
- Individuals to remain behind to carry out or close-down vital plant operations before evacuating themselves.
- Individuals authorized to perform rescue or medical duties in the event of an evacuation.

The EAP must also list the name or job title of every employee who may be contacted by employees who need more information about the EAP or an explanation of their duties under it.

2. Evacuation Procedures: At a minimum, the EAP must incorporate the following procedures:

- Procedures for reporting fires and other emergencies.
- Emergency evacuation procedures, including evacuation type and identification of exit routes.
- Procedures to help disabled employees that require assistance to evacuate.

- Procedures for the employees who remain behind to operate critical plant operations before evacuating themselves.
- Procedures to account for all employees after evacuation.
- Procedures for the employees performing rescue or medical duties.

3. Alarm & Notification Systems: There are also certain engineering controls you must implement as part of the EAP, including:

- An alarm system that uses a distinctive signal that all employees recognize to communicate orders to evacuate or perform other actions under the EAP.
- A public address or other emergency communications system that's available to use to notify employees of the emergency and contact local fire, police and other emergency respondents.
- An auxiliary power supply in case electricity is shut off.

4. PPE & Protective Clothing: Workers counted on to extinguish fires or who are otherwise exposed to risk of fire and explosion must be equipped with and use appropriate PPE and protective clothing. Workers who perform interior structural firefighting operations must be furnished, at no cost to themselves:

- Foot and leg protection;
- Protective footwear;
- Body protection;
- Gloves or glove systems;
- Head, eye and face protection; and
- Respiratory protective equipment.

Step Three: Training and Education (Day 16-20)

Workers must receive training and education needed to carry out their roles under the EAP (even if the role is to evacuate or shelter-in-place) and help in the safe and orderly evacuation of other workers.

Other items to educate workers on include:

- Threats, hazards and protective actions.
- Notification, communication and warning procedures.
- Means of locating family members in an emergency.
- Emergency response procedures.
- Evacuation, shelter and accountability procedures.
- Location and use of emergency equipment.
- Procedures for emergency shutdown.

Employees designated to use firefighting equipment under the EAP must also be trained in the appropriate use of the equipment upon initial assignment of that responsibility and at least once a year after that.

Implementation Strategy: Use training programs and resources (such as those provided by SafetyNow and SafeSupervisor), deliver

effective and legally compliant fire and emergency response training.

Keep in mind that simply providing training isn't enough. You must ensure workers understand and can apply their training on the job. Methods of verifying the effectiveness of training include:

- Quizzing workers on the lesson after you deliver it.
- Making workers demonstrate the procedures covered during the training.
- Making workers demonstrate proper use of the PPE covered during the training.
- Staging evacuation drills to verify that workers can carry out the EAP and evacuate safely in the event of a fire or other emergency.

Step Four: Inspect, Monitor, Reinforce, and Improve (Day 21-30 and forever after)

You must review the EAP with each worker the plan covers when:

- The EAP is first developed or the worker is first assigned to carry out a responsibility under the plan;
- The worker's responsibilities under the EAP change; and
- Changes are made to the EAP itself.

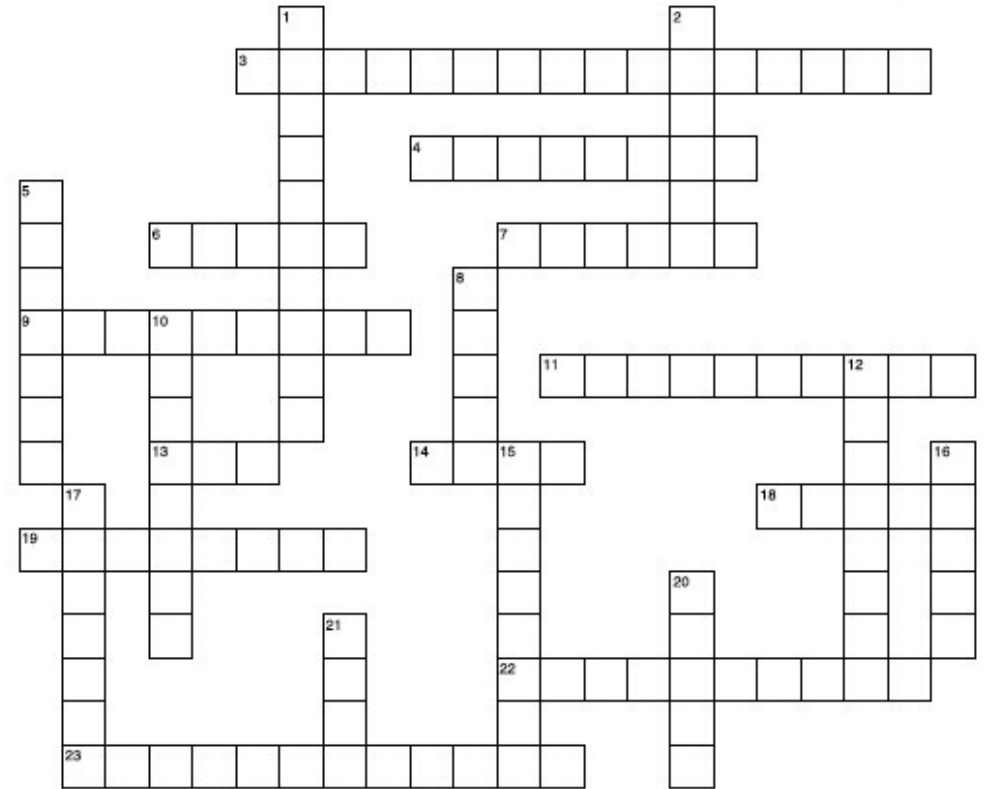
The final step is to monitor your EAP. Monitoring must be carried out on an ongoing and continuous basis. So even though we "schedule" it as starting on Day 21 and ending on Day 30, the monitoring process never ends. Monitoring should be done on a regular basis, e.g., fire inspections should be part of monthly work inspections and scheduled safety audits, and in response to red flags like:

- Worker complaints.
- Incident and injuries.
- Significant changes to operations, equipment, personnel etc. that weren't accounted for or anticipated in the previous hazard assessment.



Emergency Preparedness

How much do you know about emergency preparedness? Do you know how these words relate to you?



- ACROSS**
- 3 used to put out flames (2 words)
 - 4 pre-hospital help given to an injured person (2 words)
 - 6 ways out
 - 7 help
 - 9 make a call
 - 11 seismic tremor
 - 13 technique used to revive a person's heart (abbr)
 - 14 prepare
 - 18 splash or flow
 - 19 catastrophe
 - 22 micro-organism risks
 - 23 go here if substance splashed on body (2 words)

- DOWN**
- 1 instructions
 - 2 obligations
 - 5 get in touch with
 - 8 practice exercise
 - 10 get everyone out
 - 12 everyone should have an _____ task
 - 15 put together
 - 16 drench with water
 - 17 signs or gestures
 - 20 warning device
 - 21 where to find chemical information

Sales: 1-800-667-9300 sales@bongarde.com www.ilt.safetynow.com Email: editorial@bongarde.com

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SAFETY TALK MENTAL HEALTH & WELLNESS

Depression in the Workplace – What it Looks Like and How to Help

What's At Stake

Depression affects tens of millions of workers across the U.S. and Canada, with a cost to companies of more than \$50 billion annually from absenteeism, loss of productivity and medical expenses. Depression is projected to rank second only to heart disease as the leading cause of disability worldwide. The toll on the workers themselves is often immeasurable.

What’s the Danger?

Workers who are depressed often feel tired, unmotivated and have difficulty concentrating. Depression can cause problems with decision-making abilities and an increase in errors and accidents. Workers with depression also miss work more often and experience a higher level of presenteeism, where a worker is present at work but less focused and productive than workers without depression.

Due to the stigma of mental illness, many people find it hard to talk about their depression and seek help for it. Getting help is important, because if left untreated, depression can lead to job loss, damaged relationships, substance abuse and suicide.

How to Protect Yourself

While employers and co-workers are not expected to diagnose or treat depression, knowing the signs and what steps to take next can have a significant impact on affected employees and the workplace overall. Sometimes just knowing there is someone concerned about them provides the extra support needed for depressed workers to seek out help.

Symptoms of depression include:

- Persistent sadness and a withdrawing from friends and family,
- Fatigue and irritability,
- Lack of enthusiasm and loss of interest in things most people find enjoyable,
- Problems with sleeping, including insomnia or sleeping all the time,
- Excessive crying,
- Chronic aches and pains, and
- Thoughts of suicide or death.

At work these symptoms might manifest themselves in:

- Decreased productivity,
- Morale problems,
- Lack of cooperation,
- An increase in incidents and injuries,

- Absenteeism,
- Talking about being tired all the time,
- Complaints of unexplained aches and pains,
- Alcohol and/or drug abuse.

If you think you might be suffering from depression, make an appointment with your doctor and talk to them about how you're feeling. You can also check to see if your company has an employee assistance program or other in-house service.

If you suspect a co-worker is experiencing depression, talk to that person confidentially. Be supportive and encourage them to talk to their doctor, an on-site occupational health nurse or an employee assistance professional who can refer them to the right kind of treatment.

Final Word

Help for overcoming depression is available and the success rate for treating depression is very high. Today's medications and therapies can help between 80 and 90 percent of those with depression.

Quiz

- Someone with depression could have difficulty concentrating.
☐ True
☐ False
- Left untreated depression can lead to:
☐ Damaged relationships
☐ Job loss
☐ Suicide
☐ All of the above
- Depression is projected to rank as the second leading cause of disability worldwide.
☐ True
☐ False
- Which of the following is NOT a common symptom of depression?
☐ Trouble sleeping
☐ Excessive energy
☐ Chronic aches and pains
☐ Difficulty concentrating

SAFETY TALK RESPIRATORY PROTECTION

What's At Stake

Workplaces require millions of worker to wear respirators. Workers are protected against insufficient oxygen environments, harmful dusts, fogs, smokes, mists, gases, vapors and sprays by their use of respirators.

What’s the Danger?

Whenever engineering and work practice control measures are not adequate to prevent atmospheric contamination at the worksite, employees need to wear respirators. Enclosing or confining the contaminant – producing operation, exhausting the contaminant, or substituting with less toxic – materials are strategies for preventing atmospheric contamination.

How to Protect Yourself

Respiratory Protection

Air-purifying respirators are used against particulates, gases and vapors. These are categorized as negative-pressure respirators that use chemical cartridges and/or filters; gas masks; and positive-pressure units such as powered air-purifying respirators (PAPRs).

Air-supplied devices rely on a primary air source to deliver a steady flow of respirable air to the user's facepiece. These consist of Self-Contained Breathing Apparatus (SCBA) and air-line devices.

Two basic ways respirators protect the user:

1. Respirators include particulate respirators which filter out airborne particles, and
2. Air-purifying respirators with cartridge canisters which filter out chemicals and gases.

Employees must use respirators while effective engineering controls, if they are feasible, are being installed. If engineering controls are not feasible, employers must provide respirators and employees must wear them when necessary to protect their health. The employee's equipment must be properly selected, used, and maintained for a particular work environment and contaminant. In addition, employers must train employees in all aspects of the respiratory protection program.

Choose the Correct Respirator

It Involves:

- Determining what the hazard is and its extent,
- Consider factors that affect respirator performance and reliability, and
- Select an appropriate NIOSH-certified respirator.

Selection Factors

When selecting respirators, employers must consider the chemical and physical properties of the contaminant, as well as the toxicity and concentration of the hazardous material and the amount of oxygen present. Other selection factors are nature and extent of the

hazard, work rate, area to be covered, mobility, work requirements and conditions, as well as the limitations and characteristics of the available respirators.

- Air-purifying respirators use filters or sorbents to remove harmful substances from the air. They range from simple disposable masks to sophisticated devices. They do not supply oxygen and must not be used in oxygen-deficient atmospheres or in other atmospheres that are immediately dangerous to life or health (IDLH).
- Atmosphere-supplying respirators are designed to provide breathable air from a clean air source other than the surrounding contaminated work atmosphere. They include supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

Inspection & Care of Respirators

Attention to Wear and Tear: It is important to inspect all respirators for wear and tear before and after each use, giving special attention to rubber or plastic parts that can deteriorate or lose pliability. The facepiece, headband, valves, connecting tube, fittings, and cartridges, canisters or filters must be in good condition. A respirator inspection must include checking the tightness of the connections.

Monthly Inspection: Users must inspect SCBAs at least monthly and ensure that air and oxygen cylinders are fully charged according to the manufacturer's instructions. Employers must keep records of inspection dates and findings.

Replacement Protocol: Users should replace chemical cartridges and gas mask canisters as necessary to provide complete protection, following the manufacturer's recommendations. In addition, they should replace mechanical filters as necessary to avoid high resistance to breathing.

Experienced Repair Service: Only an experienced person is permitted to make repairs, using parts specifically designed for the respirator. This person must consult the manufacturer's instructions for any repair and no attempt should be made to repair or replace components or make adjustments or repairs beyond the manufacturer's recommendations.

Clean and Disinfect: The employer must ensure that respirators are cleaned and disinfected as often as necessary to keep them sanitary. In addition, the employer must ensure that emergency-use respirators are cleaned and disinfected immediately after each use.

Final Word

Respiratory protection can save a life, hazards in the workplace may not seem as serious to you but regular exposure to certain materials and particles can lead to chronic illnesses and can cause drastic damage to your lungs.

SAFETY TALK BASIC ELECTRICAL

What's At Stake

Static and Dynamic Electricity

All electrical systems have the potential to cause harm. Electricity can be either “static” or “dynamic.” Dynamic Electricity is the uniform motion of electrons through a conductor (this is known as electric current). Conductors are materials that allow the movement of electricity through it. Most metals are conductors. The human body is also a conductor.

Static Electricity is accumulation of charge on surfaces as a result of contact and friction with another surface. This contact/friction causes an accumulation of electrons on one surface, and a deficiency of electrons on the other surface.

Path or Loop

Electric current cannot exist without an unbroken path to and from the conductor. Electricity will form a “path” or “loop”. When you plug in a device (e.g., a power tool), the electricity takes the easiest path from the plug-in, to the tool, and back to the power source. This is action is also known as creating or completing an electrical circuit.

What’s the Danger?

Four Types of Injuries

1. Electrocution (fatal)
2. Electric Shock
3. Burns
4. Falls

These injuries occur as follows:

- Direct contact with exposed energized conductors or circuit parts. When electrical current travels through our bodies, it can interfere with the normal electrical signals between the brain and our muscles (e.g., heart may stop beating properly, breathing may stop, or muscles may spasm).
- When the electricity arcs (jumps, or “arcs”) from an exposed energized conductor or circuit part (e.g., overhead power lines) through a gas (such as air) to a person who is grounded (that would provide an alternative route to the ground for the electrical current).
- Thermal burns including burns from heat generated by an electric arc, and flame burns from materials that catch on fire from heating or ignition by electrical currents or an electric arc flash. Contact burns from being shocked can burn internal tissues while leaving only very small injuries on the outside of the skin.
- Thermal burns from the heat radiated from an electric arc flash. Ultraviolet (UV) and infrared (IR) light emitted from the arc flash can also cause damage to the eyes.
- An arc blast can include a potential pressure wave released from an arc flash. This wave can cause physical injuries,

collapse your lungs, or create noise that can damage hearing.

- Muscle contractions, or a startle reaction, can cause a person to fall from a ladder, scaffold or aerial bucket.

How to Protect Yourself

Electrical Safety Basics

- Don’t work with exposed conductors carrying 50 volts or more.
- Make sure electrical equipment is properly connected, grounded and in good working order.
- Extension cords may not be used as permanent wiring and should be removed after temporary use for an activity or event.
- Surge suppressors with built-in circuit breakers may be used long-term and are available with three, six and 15 foot-long cords.
- High amperage equipment such as space heaters, portable air conditioners and other equipment must be plugged directly into permanent wall receptacles.
- Do not access, use or alter any building’s electrical service, including circuit breaker panels, unless you are specifically qualified and authorized to do so.
- Wet environments can increase the risk of an electrical shock.

General Safety Tips For Working With Or Near Electricity

- Inspect portable cord-and-plug connected equipment, extension cords, power bars, and electrical fittings for damage or wear before each use. Repair or replace damaged equipment immediately.
- Always tape extension cords to walls or floors when necessary. Do not use nails and staples because they can damage extension cords and cause fire and shocks.
- Use extension cords or equipment that is rated for the level of amperage or wattage that you are using.
- Always use the correct size fuse. Replacing a fuse with one of a larger size can cause excessive currents in the wiring and possibly start a fire.
- Be aware that unusually warm or hot outlets or cords may be a sign that unsafe wiring conditions exists. Unplug any cords or extension cords from these outlets and do not use until a qualified electrician has checked the wiring.
- Always use ladders made with non-conductive side rails (e.g., fibreglass) when working with or near electricity or power lines.
- Place halogen lights away from combustible materials such as cloths or curtains. Halogen lamps can become very hot and may be a fire hazard.
- Risk of electric shock is greater in areas that are wet or damp. Install Ground Fault Circuit Interrupters (GFCIs) as they will

interrupt the electrical circuit before a current sufficient to cause death or serious injury occurs.

- Use a portable in-line Ground Fault Circuit Interrupter (GFCI) if you are not certain that the receptacle you are plugging your extension cord into is GFCI protected.
- Make sure that exposed receptacle boxes are made of non-conductive materials.
- Know where the panel and circuit breakers are located in case of an emergency.
- Label all circuit breakers and fuse boxes clearly. Each switch should be positively identified as to which outlet or appliance it is for.
- Do not use outlets or cords that have exposed wiring.
- Do not use portable cord-and-plug connected power tools if the guards are removed.
- Do not block access to panels and circuit breakers or fuse boxes.
- Do not touch a person or electrical apparatus in the event of an electrical incident. Always disconnect the power source first.

Final Word

Electrical repairs must be carried out only by persons who are qualified and authorized to do so. Makeshift repairs of electrical equipment have resulted in many deaths in the workplace. Remember, you are in danger of electrocution if testing and repairs are done incorrectly.



Quiz

1. Dynamic electricity is the uniform motion of electrons through a conductor. (ie) electric current.
☐ True
☐ False
2. Extension cords made of rubber maybe used as part of the permanent wiring infrastructure.
☐ True
☐ False
3. When using electricity in a wet or damp location, including outdoor locations, a Ground Fault Circuit Interrupter (GFCI) must be used.
☐ True
☐ False
4. You have the option to use nails or staples to affix extension cords or equipment to walls or floors..
☐ True
☐ False

WHAT WOULD YOU DO?

You have been working with hand power tools for most of your adult work life. You have seen and experienced dangerous work practices before. You are operating a hand power tool and can definitely feel a “tingling” is your palm and arm. You have experienced similar feeling before that proved to be problematic. Your young supervisor says you must be imagining it because your power tool was just recently tested to be 100% operable. Do you go to the lead supervisor? Do you refuse to use the power tool?

What would you do?

SAFETY TALK EMERGENCY PREPAREDNESS

What's At Stake

Emergencies can create a variety of hazards for workers in the impacted area. Preparing before an emergency incident plays a vital role in ensuring that employers and workers have the necessary equipment, know where to go, and know how to keep themselves safe when an emergency occurs.

The more you are prepared for them, the better you will be able to act, minimizing panic and confusion when an emergency occurs.

What's the Danger?

Emergencies occur every day in many facilities, including laboratories, offices, and residential buildings. It might be a fire, flood, earthquake, shooting, tornado, or hazardous chemical spill. If you don't know what to do during an emergency the odds increase that you or others around you will be injured or killed.

Emergencies

- | | |
|--|---|
| <ul style="list-style-type: none">Severe weather, such as heavy wind, flooding, tornados, or hurricanesUtility outagesFiresExplosions | <ul style="list-style-type: none">Widespread infectionHazardous materialsEarthquakesWorkplace violenceTerrorism |
|--|---|

How to Protect Yourself

An emergency plan needs to be well-thought out. It needs to be easily accessible. Though logic says it has to be thorough and well vetted, it is more important for workers to know about what is in it, does it really describe the methods to respond to the emergency event!!! A better fit is to have a appendix or supplement to enable workers to know the emergency and what to do in emergency. Small "flipcharts" or spiral-bound, hand-size, notepad-type inserts that outline each potential risk or emergency, and then show who to call, with numbers and what occupants should do for their own safety and safety of others.

Confusion and uncertainty reign in an emergency. This happens from not knowing how to react or not recognizing the potential for danger.

Knowing and practicing what to do before an emergency occurs is a key step to protecting yourself and others around you. In addition to participating in emergency drills held by your employer, take time to see how the following questions are answered.

The **WHO, WHAT, WHERE, AND HOW** answer will enable people to get a firm grasp of knowing and what to do in the event of an emergency in the workplace. It is seemingly simplistic but it answers all the questions that likely will arise in an emergency situation.

Who

- Who are the qualified first aid personnel for your facility?
- Who on your crew knows CPR?
- Who in your area is trained to clean up a chemical spill?

What

- What factors determine when you evacuate and when you shelter-in-place? Fire and explosions are examples of when to evacuate. You may be told to shelter-in-place during an earthquake, severe weather, or radiological, biological, or chemical release.
- What are the emergency exit routes from your work area? There must be at least two – and more than two are required if the number of employees, size of the building, or how the workplace is arranged will not allow for safe evacuation.
- What phone numbers do you call for various emergency agencies?
- What is the physical address of your work location?
- What are your duties in an emergency?
- What should an emergency kit contain? Do you have one in your car or at work?

Where

- Where should you assemble outdoors if you must evacuate?
- Where should you shelter-in-place if necessary?
- Where is the first aid equipment located?
- Where are the nearest telephones in your work area?
- Where is the fire extinguisher located? Do you know how to use it? If not, where and how will you get training?
- Where are the safety showers and eyewash stations in this work area? Do you know how to operate them?
- Where are the SDSs (Safety Data Sheets) for the chemicals used in your work area?

How

- How do you activate the alarm for a fire? For any other kind of emergency?
- How do you contact the fire department or a facility fire brigade?
- How would you give directions to an ambulance or other emergency service to reach your area?

Final Word

Remember, if you wait for an emergency to learn how to protect yourself, it's likely already too late. Talk to your supervisor or floor warden to clear up any questions you have with respect to an evacuation due to an emergency of any kind.

Workplace Emergency Preparedness Checklist

This emergency preparedness checklist can help you ready your workplace and workers for a wide range of emergencies and maintain business continuity.

What are the most likely threats to your workplace?

Severe weather/natural disasters? ☐ YES ☐ NO

Communicable disease outbreaks? ☐ YES ☐ NO

Interruption of essential services, such as power, water, mail, public transit and communications? ☐ YES ☐ NO

Damage to facilities? ☐ YES ☐ NO

Computer failure)? ☐ YES ☐ NO

Labour issues? ☐ YES ☐ NO

Proximity to railways & freeways, which could expose the workplace to chemical spills, dangerous goods? ☐ YES ☐ NO

Terrorism? ☐ YES ☐ NO

Radiological/nuclear hazards? ☐ YES ☐ NO

What functions or services are critical to maintaining your workplace?

Have you prioritized functions that are critical to the continuation of your business? ☐ YES ☐ NO

Are there other ways of maintaining those functions in the event of a loss of key people, facilities, tools or technology? ☐ YES ☐ NO

Have you identified key partnerships upon which your business depends, such as shipping services, technology support, supply of raw materials, etc.? ☐ YES ☐ NO

Does your workplace have effective health and safety programs? ☐ YES ☐ NO

What is the chain of command in the event of an emergency?

Have you identified the person in charge of emergency preparedness and a back-up person? Who implements, maintains and oversees the plan? ☐ YES ☐ NO

Have you outlined a chain of command with alternates and communicated this clearly to workers? ☐ YES ☐ NO

Have you considered how workers will be notified of an emergency and created a contact plan? ☐ YES ☐ NO

Do you have an emergency info-line where workers can access information quickly, such as whether or not they should come to work that day? ☐ YES ☐ NO

Have you considered cross training workers, especially for critical business, emergency, and health and safety functions? ☐ YES ☐ NO

What is the emergency response plan for your workplace?

Have you created an emergency response plan? If half of your workers were affected by a serious communicable disease how would your workplace continue to operate? ☐ YES ☐ NO

Does your emergency plan include initial response but also address

longer-term issues that may arise? ☐ YES ☐ NO

Is there a regular review process to ensure that the plan remains current? ☐ YES ☐ NO

Have there been practice sessions to identify possible gaps in the plan? ☐ YES ☐ NO

Consider the following questions and how they relate to your workplace:

PEOPLE

If some of your workers were quarantined, could they work from home? ☐ YES ☐ NO

Are counselling services provided for workers and their families to promote healthy coping strategies, combat posttraumatic stress and allow for constructive debriefing from a crisis? ☐ YES ☐ NO

Are there provisions in the plan to ensure the safety and security of the families of your workers? ☐ YES ☐ NO

Have you considered the unique needs of different cultural groups in the workplace in emergency situations? ☐ YES ☐ NO

Are workers encouraged to create their own emergency preparedness plans for their home and family? For example if the schools closed due to a public emergency, what alternate childcare arrangements have been made? ☐ YES ☐ NO

If a worker develops a communicable disease, are the other workers entitled to know about it? How do you protect the privacy of your workers while also protecting the safety of your staff? ☐ YES ☐ NO

Does your company have a hand-hygiene policy? ☐ YES ☐ NO

Does your business have a first aid kit that's readily accessible and personnel that are trained in first aid? ☐ YES ☐ NO

Does your company offer flu vaccination clinics each year and actively encourage workers to participate? ☐ YES ☐ NO

Does your workplace have an evacuation plan? Is it practiced and reviewed on a regular basis? ☐ YES ☐ NO

FACILITIES

Does your business routinely review fire code regulations to be sure that equipment and evacuation plans are current? ☐ YES ☐ NO

Have you considered the security of the physical work environment? ☐ YES ☐ NO

Are hand-hygiene stations or facilities easily accessible to staff and clients? ☐ YES ☐ NO

Are worker workspaces, break rooms and washroom facilities regularly cleaned and disinfected? ☐ YES ☐ NO

Does your business maintain and routinely check a general-purpose emergency preparedness kit? ☐ YES ☐ NO

FATALITY FILES

Plumber Electrocuted

A 40-year-old plumber was electrocuted when he contacted frayed wires on his work light. The victim was installing plumbing at a home remodeling site. To reroute a copper water line for the sink, he had to crawl under the house, carrying his small tool box and a 120-volt halogen work light. He'd been under the home for only a short period when the owner of the house heard his muffled screams. The owner called 911. When the paramedics found the victim, he was lying on top of the electrical extension cord with his face and shoulder resting on the work light. Investigators found that the ground for the home's electric system had been disconnected during the remodeling. Also, the portable work light appeared to have been damaged and the electrical wire was bare. This energized the work light and when the victim contacted the work light, the electrical current went through him. The plumber carried a portable ground fault circuit interrupter (GFCI) in his tool box. It was rolled up and unused.

Investigators made four recommendations to prevent future tragedies of this nature:

- Use a GFCI when using cord-and-plug tools or equipment.
- Use low-voltage or battery-operated work lights whenever possible
- Relocate ground wires when they must be disconnected from plumbing.
- Institute a cord and plug assured grounding conductor program.



The Donora Death Fog

It was like something out of a horror movie. But it really happened. Almost 60 years ago, a fog descended upon the small industrial town of Donora, Pennsylvania. The fog would cover the town over the next four days, killing 20 residents and hospitalizing 7,000 – half the town’s population. In 1948, the residents of Donora were accustomed to the smoke and smell from the US Steel Corp's zinc works and steel plants. They accepted the pollution as a fact of life and the cost of employment. But when an inversion set in, trapping the town’s air in the narrow river valley, the residents became trapped in a poisonous mixture of sulfur dioxide, carbon monoxide and metal dust. At first, the townspeople weren't alarmed. They carried on with their regular activities, with many even attending a football game, although they couldn't identify the players or even see the ball through the smog. But within a day, senior residents were unable to breathe, delivery drivers were wearing respirators and the yellow air was starting to burn eyes. Firemen were called to deliver oxygen to residents and a room in the community center was soon the town morgue. Four days into the siege, the zinc works mill was at last ordered to shut down. The same day, it finally rained and the trapped polluted air was released. The zinc works mill was back in operation the next day. The Donora Death Fog – or killer smog, as it was also known – triggered the first public calls for protection from industrial air pollution and was the catalyst for the creation of the Pennsylvania Clean Air Act in 1955.

Word Search - Electrical Safety

Can you find all the words associated with electrical safety?

N F H D Z J P E M K H Z M F R Q N O Q D X T B T Q C E K Y T
Z L D O R K J M D K J A I T S W J C M L J H W O D T X K K M
P L U G D A S Q A Q D Q E Z F N Q N Z G O U L F S U P W X V
E G N I T H G I L F R M S N B N G F N W F S F L D S L F L O
H Z Q H L U T T Q N I X N U H K R P P P D M L X R B O I R K
O L R J R I F H X F B O T U E Q C V B L O A Z E O V S R U H
B H P E U O F C N D I U U K R U C S C O X M S F C K I E L P
S W W C N F Q F O T H T Z H D K V M S O V I Q Q K J O S C D
F O R K T F V Y U W X D F Y H K L I G N L P U Y A M N P J N
P I X R G V J C L W L J A M W M R U I F Q S M L D D S U X O
C J U G D K O Q T M U G Z X K E G J T E H F L U R U V F T R
B M O Q C R U M K J H I J K T R N S W M U B Q X N C Y X K H
G K Y W T F T S N O W X N E S U V M B A I R T H O U U Z A Q
F Y P C Q I V Q U M W L U E S C L R F H L K B N S J F F U Y
K B E G Q E F L J M H M L U E Z Y J E T G U N A Z S Q L K Q
G L K D T G P G N T Y A A C O E W A X M O E B M A O Z M N A
E D C N A T F R S N U T L S I U M O D Q C U L J C C I A D Z
B C Q I P X O I N P K C K J B N I I H T R C F B E G L R R D
Y U W E R G Z B G C M U S H Z Y B I O N I R Y N W J A P V Y
Z B W Y O T B T B K N C E G R Q D R S W V O V Y J I V H Z J
X I H H I V C I P X M A T I N O S J I X M U X W S H R V Y N
S J W L C A E E V Z T K N O V O L T A G E I I K N B S E C J
Z X D T S K Z R L Q Z X E K U P S H D F R F A U M I H A M J
G D J L Y Q G B H E N R R C T T K C O H S X K J X E U Y L C
U K A Q J M N A N E I K R E X X L T L U N F C P C C D S G F
B B V G L I E J Y L A E U J E C J E Q W S Q U Z Y J M M I Y
R E C E P T A C L E S T C K N H F O T F T L E W P S E E R Z
B V W G C R W W W R Y S E J M C Q O F D E M H W N X M T V Z
T O B G J Q D H K F Q K P D I N K C W C C U I B G G P A X K
J B H D U E B S H X I W M T Q O U W R P O J B V P B N L D Z

- BURNS

CIRCUIT

CONNECTORS

CORDS

CURRENT

ELECTRIC

ELECTROCUTION
- EXPLOSIONS

FIRE

FLASH

HEAT

LIGHTING

METAL

OUTLET
- OVERHEATED

PLUG

POWER

RECEPTACLES

SHOCK

VOLTAGE

WIRE

FOCUS ON

PPE - Respiratory

Respiratory hazards are invisible and can have severe impact on the health and safety of a worker. A respiratory hazard can be a particulate, gas or vapor, and include airborne contaminants, biological contaminants, dusts, mists, fumes, and gases, or oxygen-deficient atmospheres. Some respiratory health problems have long-term consequences and dramatically reduce quality of living due to difficulty-breathing. Personal Protective Equipment (PPE), such as respirators, are equipment worn by workers to minimize exposure to the occupational hazards of chemical, biological and other airborne substances. A hazard cannot be eliminated by the PPE, but the risk of injury can be reduced.

Prevention

Knowing what health & safety requirements are for respirator use in the workplace, as well as having a thorough understanding of both the application and contaminants present are critical to the respiratory protection selection process.

To understand the information that's needed and its importance will ensure the safety of the respirator user while expediting the selection experience. Knowing where to turn for help can make the selection process less daunting for safety professionals faced with respiratory protection options.

The Hierarchy

A thorough understanding of the hierarchy of hazard control measures is in order. Personal protective equipment (PPE) is the last option for an employer seeking to prevent employee exposure to a contaminant. A typical hierarchy of control measures, in order, is:

- Elimination/substitution
- Engineering controls
- Administrative and work practice controls
- PPE

When it comes to respiratory hazards, elimination/substitution means phasing out the contaminant or substituting a non-hazardous material for the contaminant causing the concern. Examples of engineering controls include the isolation or dilution of the contaminant through the use of a fume hood or ventilation.

Administrative and work practice controls could encompass rotating multiple workers through a job where contaminants are present to reduce individual exposure levels.

Cautionary

A respirator only becomes an option if the preceding control methods are infeasible or if they fail to reduce exposures to acceptable levels. Respirators also could be used in the interim while the other control measures are being implemented.

Respiratory Prevention Program

After a safety manager has done their due diligence in working through the hierarchy of controls, and it's determined that Respiratory Protection is going to be part of their exposure control plan, the employer will need to implement a Respiratory Protection Program. The Respiratory Protection Program is a written collection of work-site specific procedures and policies that cover all the requirements of your jurisdiction's respiratory protection standard. It's essentially a blueprint for ensuring the health and safety of all employees using respiratory protection.

Administrator

One requirement of the respiratory protection program is that the employer designates an administrator to run the program and evaluate its effectiveness.

Training

The employer must determine, based upon the hazards present and the type of respiratory protection equipment being used, the knowledge and potential training requirements for their program's administrator.

Program Procedures

In addition to requiring a written document and having an assigned administrator, a respiratory protection program must be specific to the workplace and include procedures on the following:

- Selecting respirators.
- Medical evaluations of employees required to wear respirators.
- Fit testing.
- Routine and emergency respirator use.
- Schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding and maintaining respirators.
- Ensuring adequate air quality for supplied-air respirators.
- Training in respiratory hazards.
- Training in proper use and maintenance of respirators.
- Program evaluation.
- Ensuring that employees who voluntarily wear respirators comply with the medical evaluation and cleaning, storing and maintenance requirements of the standard.
- Updating the written program as necessary to account for changes in the workplace affecting respirator use.
- Providing equipment, training and medical evaluations at no cost to employees.