

American Society of Safety Engineers offers disaster safety checklist

There is no one-size-fits-all solution for business resumption following a disaster. However, the American Society of Safety Engineers (ASSE) offers this disaster safety checklist to assist businesses before, during and after a disaster.

Following a disaster, all businesses should do a hazard evaluation and assessment performed by an occupational safety professional and it would include the following:

- **SAFE ENTRY:** Contact the proper government agencies to get approval to resume occupancy of the building. Do not enter a facility or building unless the proper clearances have been attained.
- **STRUCTURAL SECURITY:** Have the structural integrity of the building or facility validated by qualified professionals before anyone enters the facility.
- **POWER CHECKS:** If there is no access to electricity on the site, do not use fueled generators or heaters indoors. Ensure that there are no gas and sewer leaks in your facility. You will need to check with your local utilities for information regarding power, gas, water, and sewer usage.
- **CLEAN-UP SAFETY:** Implement your clean-up and business resumption processes in a safe and healthful manner. You will accomplish nothing if your employees are injured or killed during the post-disaster business resumption period. Provide training in proper selection and use of Personal Protective Equipment (PPE) for your employees and yourself such as eyewear, gloves, boots and dust masks/respirators for cleaning, and where appropriate in other operations.
- **HEALTH/SANITATION ISSUES:** The general facility sanitation systems with the facility should be inspected and tested to guard against potential employee exposure to toxic agents. Food sanitation should also be an issue. Any unused foodstuffs should be discarded. If the workspace has a kitchen, inspect oven hoods and other ventilation devices to ensure they are not clogged and are working efficiently.
- **AIR QUALITY ASSESSMENT:** Make sure the atmosphere in the workplace environment is safe. It may be necessary to test for chemical/toxic agents. Contamination can include materials (chemical or biological) that could cause illnesses to employees. Avoidance of contaminants is always best, but not always possible. Air quality is an issue businesses may wish to pay careful attention to when restarting business operations.
- **VENTILATION:** Have vents, stacks and chimneys checked to assure that water heaters and gas furnaces are clear and operable. Dust and debris can stop or impede airflow. Safely start-up heating, ventilation and air conditioning (HVAC) systems, which includes prior inspection of lines before energizing and pressurizing of the systems. Test your systems now after inspection or have a qualified specialist do so. Blow cold air through HVAC systems first, as opposed to warm air, as it will help prevent the growth of mold in duct systems.
- **INTERIOR, EXTERIOR EXPOSURES:** For interior spaces, ensure no wall or ceiling materials are in danger of falling. If such exposures do exist, the work environment is not ready for occupancy. Don't forget to check for cracked windows and outside building materials, as these could fall onto pedestrians at any time -- now and in the future.
- **PROTECTION EQUIPMENT:** For fire and smoke alarms it is important to assure that these have been cleaned and tested before allowing occupancy of the building. If such systems are wired into other systems ensure that they work. Thorough inspection of fire-fighting systems such as sprinkler equipment is a must do item.
- **ELECTRICAL SAFETY:** Have checks made of electrical systems, computer cables and telecommunications' equipment to ensure that they are still safe and there is no danger of exposure to electricity. Wiring inspections should be conducted from the outside in to ensure all wiring and connections are not in danger of shorting out due to water damage from rain or fire-fighting efforts.
- **USE EXISTING FEDERAL GUIDELINES:** Utilize existing start-up guidance materials provided by government agencies such as the Federal Emergency Management Agency (FEMA), <http://www.fema.gov> and the National Institute for Occupational Safety and Health (NIOSH), <http://www.cdc.gov/niosh>. These agencies may have additional information how to proceed in special situations, such as floods
- **LIGHTING:** Make sure there are adequate illumination levels for employees. Emergency lighting should be checked to ensure it operates and functions in the correct manner.
- **EMERGENCY PLANNING:** Ensure that there is a clear path of egress for the emergency evacuation of employees, that the fire extinguishers are still operable and that checks for damage and serviceability are made to see if any fire extinguishers' facilities were used during the disaster. If damage is found, they should be replaced immediately.
- **SOLID/HAZARDOUS WASTE REMOVAL:** Broken glass, debris, or other materials with

sharp edges should be safely gathered and disposed of immediately. Solid waste disposal will be an issue, especially if hazardous waste is involved. Evaluate waste disposal issues prior to beginning clean-up operations to ensure it can be properly disposed of. ASSE's free 'Hazardous Materials Safety Information Guide' has information on this and is available by contacting customerservice@asse.org.

- CHECK MAINFRAMES: If your facility has mainframe computer applications - see that lines and cabling for chiller systems are checked to avoid chemical leak out.
- EMERGENCY PROCEDURES: Create a new emergency plan and distribute it to employees as soon as they return to work. In case of emergency, designate a place for employees to gather once out of the building or a phone number they should call following the emergency so that all can be accounted for. Frequently update the emergency contact list of names and phone numbers.
- MACHINE INSPECTIONS: Inspect the condition of drain, fill, plumbing, and hydraulic lines on processes and machines. It would be prudent to have hydraulic and gas lines evaluated and tested in order to detect any hazards.
- SURFACES: Make sure flooring surfaces are acceptable and free from possible slips, trips and falls. Falls are the second leading cause of on-the-job deaths in the U.S. and according to the Bureau of Labor Statistics fatal work injuries involving falls were up 17 percent in 2004. ANSI standard A1264 - protection of floor and wall openings -- is a good starting point to help prevent falls.
- OFFICE FURNITURE: Inspect the furniture to ensure it can withstand expected loads and usages. Ensure that binder bins (storage devices screwed or bolted to railing systems on walls and panels) have not become unstable due to water damage or shaking due to explosions. Inspect office equipment to ensure it is level, stable, and cannot tip over.