HAZARDOUS MATERIALS INCIDENTS

From industrial, chemical, and toxic waste to household detergents and air fresheners, hazardous materials are part of our everyday lives.

Hazardous materials are substances that because of their chemical nature, pose a potential risk to life, health, or property if they are released or used improperly.

Hazards can exist during:

- Production.
- Storage.
- Transportation.
- Use.
- Disposal.

Potential sources of hazardous materials can include:

- Chemical plants.
- Local service stations, which store and dispense gasoline and diesel fuel.
- Hospitals, which store a range of radioactive and flammable materials.
- Hazardous materials waste sites, of which there are approximately 30,000 in the United States.
- Transport vehicles, including trucks, trains, ships, and aircraft.

Hazardous materials incidents can range from a chemical spill on a highway to groundwater contamination by naturally occurring methane gas. Hazardous materials incidents can occur anywhere.

Contact your local emergency management office to find out if your community has Local Emergency Planning Committees (LEPCs) and the information they can provide.

HAZARDOUS MATERIALS INCIDENTS (CONTINUED)

Cover all of the preparedness points.

- Find out what could happen to you.
  - Ask your LEPC or emergency management office about community plans for responding to hazardous materials accidents at local plants or other facilities, or transportation accidents involving hazardous materials.
  - Ask your LEPC about storage and use of hazardous chemicals in your local area. Remember that some toxic chemicals are odorless.
  - Use the information gathered to evaluate the risks to your household. Determine how close you are to factories, freeways, or railroads that may produce or transport toxic waste.

- Address the hazards in your family emergency plan.
  - Be prepared to evacuate. An evacuation could last for a few hours or several days.
  - Be prepared to shelter in place; that is, to seek safety in your home or any other building you might be in at the time of a chemical release. At home, you should select an interior room to be used as a "safe room."
  - Assemble a shelter kit to be used to seal the shelter room should a chemical release occur.

- Practice and maintain your plans for personal or family response to a hazardous materials incident.

- Learn the warning and information system for your community. Find out how local officials will notify you of a hazardous materials situation and what you should do to protect yourself and your family or coworkers.

Warning procedures could include:

- Outdoor warning sirens or horns.

- Emergency Alert System (EAS)—Information provided by radio and television.

- "All-Call" telephoning—An automated system for sending recorded messages.

- Residential route alerting—Messages announced to neighborhoods from vehicles equipped with public address systems.

HAZARDOUS MATERIALS INCIDENTS (CONTINUED)

These are the initial steps to take in case of a hazardous materials incident:

- Leave the area immediately. Report the emergency from a safe location uphill and upwind from the emergency site.
- If you witness (or smell) a hazardous materials incident, call 9-1-1, your local emergency notification number, or the fire department, as soon as possible.
- If you hear a warning signal, listen to local radio or television stations for further information. Then, follow instructions carefully.
- Stay away from the incident site to minimize the risk of contamination.
- If you are caught outside, remember that gases and mists are generally heavier than air. Try to stay upstream, uphill, and upwind. (Hazardous materials can be quickly transported by water and wind.) Try to go at least one-half mile (10 city blocks) from the danger area; for many incidents, you will need to go much farther.
- If you are in a vehicle, stop and find shelter in a permanent building, if possible. If you must remain in your car, keep car windows and vents closed, and shut off the air conditioner and heater.
- If asked to evacuate your home, do so immediately. If authorities indicate that there is enough time, close all windows, shut vents, and turn off attic, heating, and air conditioning fans to minimize contamination.
- If requested, stay indoors—shelter in place.

Additional precautions:

- Avoid contact with spilled liquids, airborne mists, or condensed solid chemical deposits. Keep your body fully covered to provide some protection. Wear gloves, socks, shoes, pants, and a long-sleeved shirt.
- Do not eat food or drink water that may have been contaminated.

You need to follow all of the instructions given by emergency authorities. The steps to take if asked to shelter in place:

- Get household members and pets inside as quickly as possible.
- Close and lock all exterior doors and windows. Close vents, fireplace dampers, and as many interior doors as possible.

HAZARDOUS MATERIALS INCIDENTS (CONTINUED)

- Turn off air conditioners and ventilation systems. In large buildings, building superintendents should set all ventilation systems to 100 percent recirculation so that no outside air is drawn into the building. If this is not possible, ventilation systems should be turned off.

- Go into the pre-selected safe room (the above-ground room with the fewest openings to the outside). Take a battery-powered radio, water, sanitary supplies, a flashlight, and your disaster supply kit (which should include pre-cut plastic sheeting for windows and vents, duct tape, modeling clay for sealing cracks, and a towel for under the door).

  - Close doors and windows in the room.
  - Tape around the sides, bottom, and top of the door.
  - Cover each window and vent in the room with a single piece of plastic sheeting, taping around all edges of the sheeting to provide a continuous seal.
  - If there are any cracks or holes in the room, such as those around pipes entering a bathroom, fill them with modeling clay or other similar material.

You should follow these additional precautions when sheltering in place during a hazardous materials incident:

- Remain in the room, listening to emergency broadcasts on the radio, until authorities advise you to leave your shelter.

- If authorities warn of the possibility of an outdoor explosion, close all drapes, curtains, and shades in the room. Stay away from windows to prevent injury from breaking glass.

- When authorities advise people in your area to leave their safe rooms, open all doors and windows and turn on air conditioning and ventilation systems. These measures will flush out any chemicals that infiltrated into the building.

HAZARDOUS MATERIALS INCIDENTS (CONTINUED)

The actions you should take after a hazardous materials incident:

- If evacuated, do not return home until local authorities say that it is safe.
- Upon returning home, open windows and vents, and turn on fans to provide ventilation.
- Follow decontamination procedures for persons or items that have been exposed to a hazardous chemical:
  - Depending on the chemical, you may be advised to take a thorough cool shower or to stay away from water and follow another procedure.
  - Seek medical treatment for unusual symptoms as soon as possible.
  - If medical help is not immediately available, remove all of your clothing and shower thoroughly (unless local authorities say that the chemical is water reactive and advise you to do otherwise). Cut off clothing that would normally be removed by pulling over the head.
  - Change into fresh, loose clothing and seek medical help as soon as possible.
  - Place exposed clothing and shoes in tightly sealed containers. Do not allow them to have contact with other materials. Ask local authorities about proper disposal.
  - Advise everyone who comes into 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 service office.

HOUSEHOLD CHEMICAL EMERGENCIES

Nearly every household uses products that contain hazardous materials. While the risk of a chemical accident is slight, knowing how to handle these household chemicals and how to react during an emergency can reduce the risk of injury.

The symptoms of poisoning include:

- Difficulty breathing.
- Irritation of the eyes, skin, throat, or respiratory tract.
- Changes in skin color.
- Headaches, blurred vision, or dizziness.
- Clumsiness or lack of coordination.
- Cramps or diarrhea.

The best way to protect yourself from household chemical emergencies is to use the L.I.E.S. procedure.

- **L**imit the amount of hazardous materials in storage.
- **I**solate products in approved containers, store them inside enclosed cabinets, and protect them from sources of ignition.
- **E**liminate products that are no longer necessary by disposing of them properly.
- **S**eparate incompatible materials (e.g., chlorine products and ammonia).

Read the label on any product and to follow all safety precautions recommended by the manufacturer.

HOUSEHOLD CHEMICAL EMERGENCIES (CONTINUED)

To ensure the safe handling of chemicals in the household, you should:

- Read all directions before using a new chemical product. Be sure to store household chemicals according to the instructions on the label.

- Store chemicals in a safe, secure location, out of the reach of children.

- Avoid mixing household chemical products. Deadly fumes can result from the mixture of chemicals such as chlorine bleach and ammonia.

- Never smoke while using household chemicals. Avoid using hair spray, cleaning solutions, paint products, or pesticides near an open flame, pilot light, lighted candle, fireplace, wood-burning stove, etc. Although you may not be able to see or smell it, vapor could catch fire or explode.

- If you spill a chemical, clean it up immediately with rags. Be careful to protect your eyes and skin (wear gloves and eye protection). Allow the fumes in the rags to evaporate outdoors, then dispose of the rags by wrapping them in a newspaper and placing them in a sealed plastic bag in your trash can.

These are additional recommendations:

- Post the number of the nearest poison control center near all telephones. In an emergency situation, you may not have time to look up critical phone numbers.

- Learn to detect hazardous materials. Many hazardous materials do not have a taste or an odor, and some can be detected because they cause physical reactions such as watering eyes or nausea. Other hazardous materials exist beneath the ground and can be recognized by an oil or foam-like appearance.

- Learn to recognize the symptoms of poisoning.

What to do during a household chemical emergency:

- If a poisonous substance is consumed:

  - Find any containers immediately. Medical professionals may need specific information from the container(s) to provide the best emergency advice.
  - Call the poison control center at 1-800-222-1222 and, if directed, 9-1-1 or local emergency number. Follow the emergency operator or dispatcher's instructions carefully. Do not give anything by mouth until medical professionals have advised you.

HOUSEHOLD CHEMICAL EMERGENCIES (CONTINUED)

- If a chemical gets into the eyes:
  - Follow the emergency instructions on the container.
  - Continue the cleansing process even if the victim indicates that he or she is no longer feeling any pain, and then seek medical attention.

- If there is a fire or explosion:
  - Evacuate the residence immediately.
  - Move upwind and away to avoid breathing toxic fumes.
  - Call the fire department from outside (using a cellular phone or a neighbor's phone) and safely away from the danger.

These are additional measures that you should take in case of a household chemical emergency:

- Wash hands, arms, or other exposed body parts that may have been exposed to the chemical. Chemicals may continue to irritate the skin until they are washed off.

- Discard clothing that may have been contaminated. Some chemicals may not wash out completely. Discarding clothes will prevent potential future exposure.

- Administer first-aid treatment to victims of chemical burns. Follow these steps to administer first aid:
  - Call 9-1-1 for emergency help.
  - Remove clothing and jewelry from around the injury.
  - Pour clean, cool water over the burn for 15 to 30 minutes.
  - Loosely cover the burn with a sterile or clean dressing. Be sure that the dressing will not stick to the burn.
  - Refer the victim to a medical professional for further treatment.