

## **SHELTER IN PLACE**

In case there is a release of hazardous materials into the environment, emergency management officials have to decide how best to protect the people who are currently in the area affected by those materials. In some cases, the amount of hazardous material is large or particularly dangerous. In that case, all those in the area will have to leave to avoid serious injury or death; an evacuation will be ordered. An evacuation means you should depart the area as rapidly as possible, perhaps using pre-arranged routes or directions. Taking a particular route or traveling in a particular direction may be necessary in order to get out of danger and remain safe until clear of the area.

In many cases, however, the nature, extent and expected duration of the emergency are such that it is more reasonable to ask people to stay in the area, but indoors, while taking precautions to minimize exposure to the hazardous materials. This option is called “Shelter in Place” (SIP).

The SIP option has several advantages. For one, in an evacuation, the people in the area have to be brought outside, where they would be directly exposed to the contamination. In addition, if the area of contamination is large, evacuation leaves those people exposed for an extended time period, particularly as traffic jams are likely. Finally, if evacuation becomes necessary, it can be managed in a more orderly fashion if the affected people are temporarily protected.

For SIP to work, it is necessary that those who are using this option be prepared in advance. They must both know what precautions to take, and have the materials on hand necessary to reduce the amount of toxic material that can make its way into their shelter area. Most often the shelter area is presented in terms of a home, since people often spend much of their time at home. The principles of SIP apply everywhere, and particularly to the workplace. Business leaders should also consider how they will react, and what protective materials they will have on hand, in case they need to provide a SIP environment for their employees and customers.

It is not usually necessary to make an entire building safe. In fact, this may not be practical. There are usually areas within buildings that can be quickly and effectively sealed off. Knowing where these are, and knowing how to provide the necessary protection can make the difference in a hazardous materials emergency between safely riding it out, and suffering the effects of the materials.

It is best that you avoid making your SIP plans according to some generic rules. Instead, make your plans after you have carefully examined the specific area you wish to protect. You need to observe all the possible connections to the air outside, from ventilation systems to chimneys to cracks in the floor, and provide the means to stop external air flows through each of them. Plastic sheeting, duct tape, even wet clothing can be put to good use. Use your imagination; use what is at hand. Nevertheless, consider that if you have sheets of plastic, cut to fit your doors and windows and stored where you can get to them quickly, you will save yourself precious time in an actual emergency.

Become aware of the potential hazards in your community. This area is crisscrossed with major highways and has several active rail lines as well as one of the busiest waterways in the world. The St. Louis region is known for its transportation system. That is why we are seeing the growth of large warehouses in the area. As a result of our massive transportation system, we also see many tons of hazardous materials transit our community each day. Whether by rail, barge or truck, an accident involving hazardous material may cause large areas to be evacuated or require people to shelter in place. You may have very little time to react, so you need to be ready.

Be aware also of how you might be informed of an emergency requiring you to shelter in place. You may hear the Granite City Emergency Warning System (Sirens). These sirens are tested on the first Tuesday of each month and have been used many times to warn the public of approaching tornados or severe weather. They have also been used to relay information regarding the availability and location of ice and water during the storms of 2006. This same system can be used to inform the public of evacuation or shelter in place orders. You may also receive instructions via radio or TV. You may receive an automated phone call on your published phone number or local emergency personnel may use loud speakers to warn you and give instructions.

The most likely method of notifying the public that the emergency has passed is over the airways; TV or radio, so be sure to have a battery powered radio in your emergency kit. In our area KMOX radio and community access channel 10 TV are the most likely public airways used for this purpose.

The most likely cause of a shelter in place order is a spill of hazardous material that makes the air unsafe to breath.

If an order to shelter in place is issued, you should:

- Immediately close all doors and windows and turn off all ventilation, including furnaces, air conditioners, vents and fans.
- Seek shelter in an internal room; on the highest floor and without windows if possible. Take your disaster supplies kit with you.
- Seal the room with duct tape and plastic sheeting.
- Listen to your radio & turn the TV to channel 10 for instructions from authorities.

If you are caught in or near a contaminated area, you should:

- Move away immediately in a direction upwind from the source.
- Find shelter as quickly as possible.

Decontamination guidelines are as follows:

- Use extreme caution when helping others who have been exposed to chemical agents.
- Remove all clothing and other items in contact with the body. Contaminated clothing normally removed over the head should be cut off to avoid contact with the eyes, nose, and mouth. Put the contaminated clothing and items into a plastic bag and seal it. Decontaminate hands by

using soap and water. Remove eyeglasses or contact lenses. Put them in a pan of household bleach to decontaminate them and then rinse and dry them.

- Flush eyes with (a lot of) water.
- Gently wash face and hair with soap and water before thoroughly rinsing with water.
- Decontaminate other body areas likely to have been contaminated. Using a cloth soaked in soapy water, blot the area and rinse with clear water.
- Change into uncontaminated cloths. Clothing stored in drawers or closets is likely to be uncontaminated.
- Proceed to a medical facility for screening and professional treatment.

If you are going to survive any disaster, be it natural or manmade, you must be prepared and have a plan. Check this site and others for emergency planning tools