6.0 Emergency preparation

IN THIS SECTION:

Even the most safety conscious organisation can have an emergency. So you, your workers, and emergency service workers need to know what to do, and who is responsible for what in an emergency.

Possible emergencies involving the hazardous substances you use and store at your workplace include:

- a worker being poisoned by ingesting or inhaling a toxic substance
- a worker being burnt by a corrosive substance
- a fire caused by flammable or oxidising substances, or
- hazardous substances leaking or spilling from their containers, injuring people and contaminating land and waterways.

6.1 Prepare for an emergency

How you prepare for an emergency depends on the types and amounts of hazardous products you use and store. Some actions to keep safe are always required, while others are required only if you have substances over certain limits. The checklist below tells you what you always need to do when using and storing hazardous products. The Calculator will help you work out whether you need fire extinguishers, signs, secondary containment or an emergency response plan.

CHECKLIST

To be ready for and prevent emergencies

- ○ **Train your workers** about what to do in an emergency. They also need to know where the safety and first aid equipment is stored and how to use it.
- ○ **Make sure your inventory is accessible to any emergency service worker**, both during an emergency and after the workplace has been evacuated.
- ○ **Label all hazardous products** and make sure the label is readable and stays on the container. If you transfer a hazardous product from one container into another one, you must make sure that the new container is also labelled.
- ○ **Have a safety data sheet** for each hazardous product at your workplace. Store the SDS in a place where workers and emergency services can easily locate them. See pages 28-29 of this guide for more information.
- ○ **Store incompatible products separately**. Make sure you keep hazardous substances that can react with one another separate. Check the SDS to find out what your product is incompatible with. See page 34 of this guide for more information.
- ○ **Store oxidisers safely**. There are particular precautions for storing oxidisers, such as keeping them away from combustible material.
- ○ **Be prepared for a spill** or leak of the hazardous substances you use, handle, manufacture and store. The safety data sheet for each of your substances will give you information about how to clean up spills. There is some general guidance in section 6.2 of this guide.
- ○ **Make sure any hazardous waste is labelled**.

6.2 Spill kits

You need to be prepared to deal with a spill or leak of the hazardous substances you use, handle, manufacture and store. For small spills, a spill kit might be sufficient to contain the spill. You can purchase spill kits from safety equipment suppliers or make a kit to suit your needs. The equipment needed in your spill kit will depend on what hazardous substances you have and the amount that could possibly be spilled.

CHECKLIST

Generally, your spill kit should contain:

- ○ PPE like overalls, gumboots, gloves, goggles and facemasks
- ○ spill handling equipment like shovels, but be aware that metal shovels could spark, which is dangerous when you are cleaning up a spill involving flammable substances
- ○ spill containment equipment like drain guards or barriers, or drip pans
- ○ absorbent material like absorbent pads, sand (note that sawdust is not a suitable absorbent for flammable or oxidising substances because it acts as a fuel in a fire)
- ○ a leak-proof disposal container to put the waste in once the spill is cleaned up.

You need to make sure that your workers know where the spill kit is kept and how to use it.

6.3 Control measures in the Hazardous Substances Calculator

The *Hazardous Substances Calculator* will tell you which of the following equipment and other measures you need:

Fire extinguishers

Fire extinguishers put out fires before they reach your hazardous substances to prevent a more serious situation from occurring.

You must have fire extinguishers if you have amounts of flammable or oxidising substances over certain limits.

However, you should always have suitable fire extinguishers if you use or store any flammable, oxidising or toxic substances.

If you need fire extinguishers, you need to make sure:

- you have the correct number of fire extinguishers
- your fire extinguishers are clearly seen and readily accessible in an emergency
- your fire extinguishers are of a sufficient standard. Fire extinguishers must have a rating of at least 30B.

You can make your fire extinguisher readily accessible by placing it in a prominent place along pathways people usually use in your workplace and where it will be easily accessible to emergency services in an emergency.

Ask your equipment supplier for help when selecting fire extinguishers.

Remember that as part of your duty to train your workers, you need to make sure that workers know how to operate emergency response equipment.

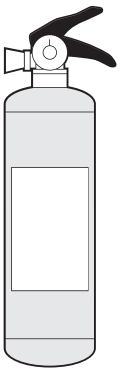

FIGURE 12:
Fire extinguisher

Signs

You should have signs when you have hazardous substances over certain limits. However, always have signs warning visitors and emergency services that your workplace has hazardous substances. The Calculator will tell you if you need to have signs. See also pages 29-31 of this guide for more information.

Secondary containment

A spill kit will not be sufficient to contain a large spill. If you store large amounts of hazardous substances you will need secondary containment to keep the spill from spreading and help recover the spilled substance. Use the Calculator to work out if you need secondary containment.

There are specific requirements for certain container types, sizes, and locations. Below are some examples of different secondary containment requirements however it is not a complete list.

Secondary containment for above-ground tanks and drums is commonly a compound with bund walls to contain any leaked substance.

Secondary containment for above-ground stationary container systems that can hold 250 L or more must be able to contain at least 110% of the capacity of the largest container.

Secondary containment for below-ground tanks is normally a double skinned stationary tank or a tank in an impermeable pit with secondary containment that is able to contain at least the capacity of the tank.

Farms have specific requirements for secondary containment, as do tank wagons.

Visit WorkSafe's website for guidance on the secondary containment requirements for specific substances in different locations and containers.

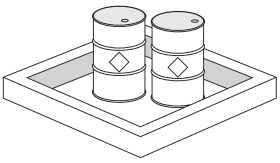

FIGURE 13:
Secondary containment

Emergency response plans

If you have large amounts of hazardous substances in your workplace, you must have a written emergency response plan to minimise the effects of any emergency that occurs, although it is best practice always to have one.

Use the *Hazardous Substances Calculator* to work out if you need an emergency response plan. Your response plan must cover all the emergencies that might arise for the hazardous substances you have and you must practise it with your workers.

Fire and Emergency New Zealand can review the plan to check that any roles proposed for them in it are achievable and consistent with their operational policies and identify anything that could affect operations in an emergency. They may ask for more details to clarify their role in the plan and the resources they will need.

If Fire and Emergency New Zealand makes a written recommendation about the plan, the plan must be amended to give effect to the recommendation.

CHECKLIST

Your plan must include a description of what you will do to:

- ○ call emergency services
- ○ warn people at the workplace and nearby about the emergency
- ○ advise people how they can protect themselves and how they can help other people involved in the emergency
- ○ help or treat anyone who is injured in the emergency
- ○ manage the emergency to restrict the adverse effects to the initial area, reduce their severity and if possible, eliminate them.

The plan must also:

- ○ name the people with specific responsibilities (such as fire wardens or first aiders) and provide contact information for these people and for emergency services
- ○ list the skills, information, training and instruction these people need to have to respond to emergencies involving the substances, and the actions they are expected to take
- ○ describe how to get information about the hazardous properties of the substances involved in the emergency and how to control these properties
- ○ state where to find emergency equipment and its purpose
- ○ list the actions for each potential emergency and the order in which they need to be taken
- ○ be available to all people listed in the plan as having responsibilities, and to emergency services
- ○ include an inventory of hazardous substances
- ○ include a site plan.

You also need to

- ○ test your emergency response plan at least once a year to check that it works and is effective. If any problems are identified you need to update your plan. You must keep records of tests for at least two years.

Update the plan if there are changes to the hazardous substances used and stored at your workplace, or to the workers with specific emergency responsibilities. If the plan is updated, it must be tested within three months of the update.

The *Emergency Response Flipchart* is a template of what an emergency response plan should look like. You can find the *Emergency Response Flipchart* at: www.hazardoussubstances.govt.nz

You may also need a fire evacuation scheme

You might also need to have an evacuation scheme in place, approved by Fire and Emergency New Zealand who has a useful website to provide you with guidance about Fire Evacuation Schemes: https://onlineservices.fire.org.nz

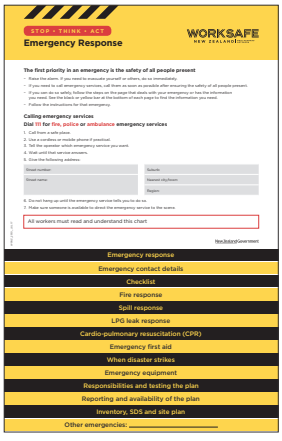

FIGURE 14: Emergency Response Flipchart