Chemical spills and emergency response

WHAT'S IN a name? A lot.

Names are important to a whole raft of people – to emergency services, ERMA, Department of Labour, and others. Hazardous materials, hazardous substances and chemical spillages draw a range of responses from these agencies, depending on the context in which the phrases are used. Many business owners may not realise a chemical can be a hazardous material or hazardous substance. Hazardous substances mean substances that are explosive, flammable, oxidising, toxic, corrosive, or harmful to the environment, in other words, chemicals.

Many attempts by businesses to plan for these emergencies have not been good. Too often, when business owners are asked, "How would the Fire Service know that you hold hazardous substances? the reply is, "I hadn't thought about it," or worse still, "They wouldn't".

This is a good lead in to identifying if the business has an emergency response plan (ERP).

Some businesses have well-thought-out response plans with trained staff that regularly practise the actions they are required to take. Many have nothing, and say "I would just dial 111," or, after much ferreting around, produce a tattered plan. Thumbing through the document, it's evident that emergencies we see on the news get the most attention; tsunamis, volcanos and earthquakes are prominent, but the plan is often bereft of ideas when it comes to the more likely, hazardous substances emergency. If something is listed, it is usually one sentence saying, "See the relevant safety data

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sheet, clean up and call the Fire Service".

It is a cliché, but prevention really is better than cure. Hazardous Substances Classes 1-9 (excluding radioactive, infectious substances) are controlled by the Hazardous Substances and New Organisms Act 1996 (HSNO) (see www.ermanz.govt.nz).

Business need to comply with the Hazardous Substance (Emergency Management) Regulations 2001. These regulations list three levels of emergency management requirements, depending on the quantities of hazardous substances that are held at the site. Increasing controls are required, depending on the severity of the hazard, combined with the quantity stored.

Hazardous substances must be clearly labelled in order to be identified. Documentation such as Safety Data Sheets (SDS/MSDS) should also be available. Buildings need to have signage to give a visual indication to the emergency services of the presence of a hazardous substance.

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Business owners need to go through SDS's with staff so they understand the properties of the substance. On one occasion, the Fire Service was shown a spill kit; the absorbent provided would indeed have absorbed the spill, only later on to create a bigger emergency by catching fire! The absorbent chosen was incompatible with the substance; oxidising substances can have this potential. In another case, we were shown a decrepit canister mask that had been left in the open. A quick check revealed it was past its use-by date and the cartridge used activated carbon. Left out in the open air instead of in an airtight container, the cartridge would have continued to absorb contaminants, negating its effectiveness. Before purchasing safety equipment, it must be understood what is needed and how it is to be maintained.

Emergency response plans should identify all likely scenarios for the hazardous substances that you hold. Think about how a substance comes on to your site and is used, ask yourself the "what if?" questions and how you would limit the incident and regain control. Suppliers, manufacturers or industry bodies may have useful advice.

When help does arrive, there are a number of variables the Fire Service will want to know quickly. What's the situation? Are there people unaccounted for and if so, where? What is the chemical and what are its hazards?

You should also be able to provide information on the substance. This information should be available and constantly accessible in places that the Fire Service is likely to go to; these locations include the sprinkler pump house, fire alarm panel, or a marked-up, dedicated ERP box inside the main gate. Your ERP should contain a map with hazardous substances and resources marked on it; such maps will quickly orientate the Incident Commander. For more operational aspects, the Fire Service has incorporated hazardous substance information with "A Guide to Fire Service Operations in Buildings". See www.fire.org.nz, then go to the tabs Business Fire Safety / Building Design/Fire Fighting Facilities – the document link is there. Section five deals with Hazardous Substances in much greater detail.

Things do go wrong from time to time, and if an incident does occur, having a considered ERP with staff fully trained will mean your business is back up and running again in a shorter period of time. H&S

- The New Zealand Fire Service