

Some thoughts on Emergency Planning

The Emergency Plans from Regulation 5.7 must apply to all reasonably foreseeable emergencies that may arise from a breach or failure of the controls on any hazardous substance present or likely to be present at the workplace.

Due to the sometimes significant quantities of flammables, or the serious risks presented by other compatible hazard classes in some stores, an incident, accident, spillage, fire, or smoke plume, the response by the Emergency Services may need to be multi agency. Control of the attendees will then be managed under the Coordinated Incident Management System (CIMS). You will find the CIMS 3 manual (operative from 1st July 2020) in the document library or at:

<https://www.civildefence.govt.nz/resources/coordinated-incident-management-system-cims-third-edition/>

The point of contact either at the time or in pre-planning to provide information on what is or could potentially be involved is the CIMS function role profile: 'Intelligence' and from there may be called on to provide information to 'Planning' at 'Incident Level (I)'

For industry, emergency plans are triggered by the quantities in Schedule 5.

A laboratory compliant to Part 18, Regulation 18.15 requires the development of an Emergency Plan for every quantity of every chemical.

The Health and Safety at Work (General Risk and Workplace Management) Regulations 2016: Regulation 14 places additional duties on the PCBU to develop and exercise emergency plans for all risks from the hazards irrespective of quantity or type of risk anyway; and

Schedule 3 of the Fire and Emergency New Zealand (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018 identifies trigger quantities of hazardous substances for 'relevant buildings' to have and to exercise a fire evacuation plan. It is usually the norm for a factory or laboratory to require a fire evacuation plan due to the number of people and the quantities of chemicals.

In addition, there is a need for the protection of the environment given that the above requirements are for the protection of all persons on site or offsite. Environmental protection elements while addressed in these regulations in terms of secondary containment also includes a general statement to ensure that; any spillage will not endanger any building, or flow into any stream, lake or natural water. That statement would be imputed to the Regulations as a whole in the event of a discharge; especially to a sensitive receiving environment. Any prosecutions would be taken under the Resource Management Act 1991 through s.15.

The specific emergency plans for each of the facilities must address:

The bullet points in Regulation 5.7 linked at:

<http://www.legislation.govt.nz/regulation/public/2017/0131/latest/DLM7309767.html> and require the PCBU to;

Make available any equipment, facilities and people; *Ref:* Regulation 5.9, ensuring they are present at the location, or available to reach the location within the time specified in the plan, and with trained people available to provide advice.

From Regulation 5.10 the plan must be made available to every person identified in the plan and to the emergency services.

From Part 3: Regulation 3.1(4) the inventory and site plan must be readily accessible to any emergency service worker attending including during the emergency and after the workplace has been evacuated

Regulation 5.12 requires the plan to be tested at least every 12 months to ensure the plan is workable and effective. And, should any person identified in the plan change or there be a change in procedures, relevant equipment, or processes, the plan must be exercised within 3 months of those changes to exercise any new person in their duties or functions and ensure that any new procedure is effective and workable having regard to the hazardous substances.

Apart from the requirement to keep records the PCBU has a duty to amend the plan as a response to the findings.

Any person faced with a fire, spillage, incident, accident or injury needs to have the authority and the confidence to know that activating an emergency, even if doing so incurs significant cost and inconvenience, will be fully supported and encouraged by the organisation.

It is accepted that people understand the risks associated with the chemicals they manage in the normal course of their work, but not necessarily so when it all goes wrong. Decisions are made on available data and observation; which in the event of an emergency is often significantly lacking – far less than what an otherwise experienced person would customarily rely on to make robust and safe decisions.

Conversely FENZ crews know what happens when it all goes wrong but do not necessarily know your premises or understand the equipment, processes and chemicals used. Pre-planning and exercising are of crucial importance. If the first contact a FENZ crew has of the facility is when it is all going up in smoke, regardless of the PCBU complying with the legally required duty to provide the site plan and inventory, and have the property, equipment and facilities adequately signed, it is difficult to make crucial operational decisions under the time constraints that scenario imposes.

During times of emergency the rapid progression of events can lead to information overload and an inability to mentally process safe decision making or physically undertake the task.

For the worker, the closest that normal tasks and decisions can be made to reflect the conditions extant during emergencies, the more likely it is that an actual emergency will be managed successfully. The more that emergency shutdown processes, for example, can be automated to remove the stress from multiple tasks needing to be done under time critical conditions, the more likely it is that nothing will be missed.

From the comfortable 'everything's working normally' to a realisation that something is wrong, to a decision on what to do, to finally taking the correct action, each step represents an increase in stress level and critical decision making that is often beyond an otherwise competent person.

Too often a hesitation in making that critical decision has led to catastrophic failure. To remove all doubt and hesitation the unequivocal instruction should be 'if this happens – do this, it should be that simple – and, to prevent information overload, a maximum of 3 critical actions is about the most that can realistically be expected of a competent operator. And that should be regardless of the causal factor maybe being fixable - it just might not be.