WORKSAFE
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HEALTH & SAFETY AT WORK ACT · HSWA

POLICY CLARIFICATION

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Storing class 6 and 8 hazardous substances

This policy's purpose

This policy clarification explains the requirements of Part 13 of the Health and Safety at Work (Hazardous Substances) Regulations 2017 (the Regulations) that apply to the storage of liquid and solid class 6 (toxic) and class 8 (corrosive) substances above prescribed thresholds.

It clarifies:

- that hazardous substance location and location compliance certification requirements for class 6 and 8 substances apply only when a substance is in storage
- when a substance is considered to be 'in storage'
- what a store is
- how separation distances to protected places and public places should be measured.

The requirement for location compliance certification for toxic and corrosive substances comes into force on 1 December 2019.

You should read this policy clarification if you are a:

- person conducting a business or undertaking (PCBU) that manages or controls a workplace where class 6 and/or 8 substances are present
- compliance certifier authorised to issue location compliance certificates for class 6 and 8 substances
- WorkSafe inspector
- hazardous substances professional who provides consultancy or other services to industry, certifiers or WorkSafe.

Context

Class 6 and 8 substances are present at many industry sites across New Zealand. For example, class 6 substances are important in timber treatment and electroplating processes, and primary production. Class 8 substances are essential components of clean-in-place (CIP) systems in the dairy, food processing, and pharmaceutical industries, and are widely used in water treatment and manufacturing sectors.

To improve the management of class 6 and class 8 hazardous substances, new requirements for storage and location compliance certification were introduced in the Regulations. Many requirements have been in force since 1 December 2017 and some have come into force subsequently. PCBUs should be complying with the requirements that are already in force.

What does the law say?

Regulations 13.34 to 13.39 set out requirements for class 6 or 8 substances at hazardous substance locations.

- Regulation 13.34 states that, where specified class 6 and 8 substances are present at a workplace for more than 24 hours (or 2 hours, if a tracked substance) and exceed the regulated quantity thresholds (prescribed in regulation 13.38), the PCBU must establish one or more hazardous substance locations.[1]
- Regulation 13.34(3) prescribes three options for storing class 6 and 8 substances, and regulations 13.35, 13.36 and 13.37 set the respective requirements for the three storage options.

[1] PCBUs with management or control of sites storing class 6 and 8 substances for durations under the prescribed timeframes and/or in quantities less than the prescribed thresholds are not required to establish a hazardous substance location or obtain location compliance certification. However, they must meet the requirements of regulation 13.26 and all other relevant regulations.

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- Regulation 13.38 imposes an obligation on the PCBU with management or control of a hazardous substance location to ensure that the hazardous substance location has a current location compliance certificate.
- Regulation 13.39 sets out what the location compliance certificate for each hazardous substance location must certify. Among these are specific requirements for storage facilities and the separation of substances from protected places and public places.

PCBUs must also comply with:

- regulation 3.2, which requires the PCBU to manage risks to health and safety associated with using, handling, manufacturing or storing hazardous substances at a workplace. It sets out what the PCBU must consider when managing the risks specific to the substances, the workplace and the nature of the work being carried out with the substances
- the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, in particular the provisions on managing risks to health and safety associated with substances that are hazardous to health at the workplace,
- all applicable requirements under the Health and Safety at Work Act 2015, and
- all applicable requirements under the Hazardous Substances and New Organisms Act 1996, for substances which pose an environmental hazard.

Note: When toxic and corrosive substances have other hazardous classifications, then PCBUs must also meet the relevant requirements of the Regulations.

What does this mean in practice?

The PCBU must establish a hazardous substance location and obtain a location compliance certificate for class 6 and 8 hazardous substances when:

- the time limits are exceeded (2 or 24 hours, depending on tracking requirements)
- the quantities are exceeded, and
- the substances are in storage.

When is a substance considered to be 'in storage'?

Hazardous substances can be held by a variety of containers for a number of purposes.[2] What is happening to a substance is central to determining if it is in storage or not in storage.

In storage

We consider that a substance is in storage when it is in:

- a container that is closed and is not connected to or actively supplying a process, or
- a container that is temporarily opened within the designated store (for example, for decanting), or
- a stationary container system other than a process container.

This means that, if the thresholds for quantity and time are exceeded, the PCBU must establish a hazardous substance location and obtain a location compliance certificate.

Not in storage

We consider that a substance is not in storage when it is in:

- a container that is supplying a process, either continuously or intermittently, and is either manually controlled or controlled by the process, or
- a single container that is for use in the processing area (for example, for cleaning), or
- a process container.[3]

In these circumstances, the PCBU does not need to establish a hazardous substance location or obtain a location compliance certificate.

Types of storage

Under regulation 13.34(3), the PCBU must ensure the hazardous substance location is, and complies with the requirements for, one of the following:

a. a store for class 6 or 8 substances other than an indoor storage cabinet (regulation 13.35), or
b. an indoor storage cabinet for class 6 substances (regulation 13.36), or
c. an indoor storage cabinet for class 8 substances (regulation 13.37).

The requirements for indoor storage cabinets are defined in the Regulations.

What is a 'store other than an indoor storage cabinet'?

Regulation 13.35 does not define what 'a store other than an indoor storage cabinet' (a store) is, but it requires the store to have certain characteristics. This provides flexibility in how the regulation is met, and allows for many types of stores.

[2] The Regulations define a container as any receptacle for holding hazardous substances, including a stationary tank, process container, and a package. Drums and intermediate bulk containers (IBCs) meet the broad definition of container. Containers have different purposes, including but not limited to storing, transporting and processing substances.

[3] The Regulations' definition of process container includes: a mixing container, reaction vessel, distillation column, drier, or dip tank.

In general – and providing all the applicable requirements for a store are met[4] – a store can be any of the following:

- a structure which holds containers of substances, or
- a designated area where substances are held in containers, or
- a single container (for example, an IBC or stationary tank).[5]

Measuring separation distances from a store

The Regulations set out the separation distances from a store of class 6 and 8 substances to public places and protected places. Separation distances are designed to mitigate the risk of:

- any adverse event[6] in the store impacting on public places or protected places, and
- any adverse event at public places or protected places impacting on the store.

How separation distances should be measured depends on the type of store.

For a store of containers other than stationary tanks

- Where the store is the whole building, measure the separation distance from the outside of the building.[7]
- Where there is a structure delineating the area designated as the store, measure the separation distance from the outside edge of the structure (for example, a wall or fence).
- Where there is no structure delineating the area designated as the store, measure the separation distance from the edge of the designated area (for example, grated bunding).
- Separation distances can be measured in a horizontal plane around an intervening screen wall, provided that the wall height, markings and fire-resistance requirements of regulation 13.40 are met.

For a stationary tank

- Where the store is a stationary tank, measure the separation distance from the wall of the tank, unless there is a secondary containment system and Regulation 17.28 applies to that stationary tank.
- If there is a secondary containment system and Regulation 17.28 applies, then the requirements set out in section 5.8.2.1(b) and (c) of AS/NZS 4452:1997 need to be met. This means the separation distance should be measured from the top inside perimeter of the bund.

[4] Regulation 13.35 sets requirements for: emergency access; security from access; means of access; building materials; ventilation; secondary containment; avoiding sources of heat; avoiding spillage; segregation from incompatible substances; stacking appropriately; and eye, hand and body wash facilities.

[5] Where applicable, the PCBU must also meet the requirements for stationary container systems under Part 17 of the Regulations.

[6] Adverse event includes all reasonably foreseeable emergencies that could arise from a breach or failure of controls on any hazardous substance at the workplace (for example, a fire, leak or spill) or events occurring outside the workplace (for example, fire, vehicular accidents, natural disasters).

[7] This is consistent with how separation distances are measured for flammable substances.