H Hazardous Substances

H1 Permitted Activities

Use or storage of a hazardous substance is a permitted activity if:

(a) the aggregate quantity of hazardous substances of any hazard classification on the site is less than the quantity specified for the relevant zone or Campus in table HT1, or

(ab) the Hazardous Substance is Urea and it is being stored temporarily on a site for a farming activity in the rural or coastal zone, and it is for application on that site or adjoining sites in common ownership or occupation.

(b) the activity is a service station with a maximum storage for retail sale of any or all of: 100,000 litres of petrol in underground storage tanks; 50,000 litres of diesel in underground storage tanks; 6 tonnes of LPG (single vessel storage), and

(c) the conditions in table HT2 are complied with, in the case of H1(a) or H1(b) or

(d) the activity is located in the Heavy Industrial Zone at Huntly Power Station and is located at least 20m distance from the zone boundary, except in relation to existing water intake and outfall structures (where no setback applies), or

(e) The activity is located in the Heavy Industrial Zone at Te Rapa Dairy Factory and is located at least 40m distance from the zone boundary except in relation to existing water intake and outfall structures (where no set back applies).

H2 Discretionary Activities

Use or storage of hazardous substances, which contravenes a condition for a permitted activity is a discretionary activity.

Note that without limiting discretion, assessment of discretionary applications will cover all the matters referred to in H3 (Information to accompany applications).

H3 Information to Accompany Applications

(a) The proposed site and layout, with a description of the nature and scale of the proposed facility and associated operations.

(b) Location, type and quantities of hazardous substances involved.

(c) Site drainage and off-site infrastructure (e.g. drainage type and capacity).

(d) Identification of on-site hazards, failure modes and exposure pathways from the proposed facility, including a description of the environment potentially affected.

(e) Transport of hazardous substances on and off the site, mode and route selection.

(f) The sensitivity of the surrounding human, natural and physical environment, and proposed measures to protect them (including wildlife habitats and water bodies).

(g) Separation distances from water bodies, coastal water, neighbouring activities and people potentially at risk from the hazardous facility, including consideration of the proximity to people-oriented activities (e.g. childcare, schools, rest homes, hospitals).

(h) Potential cumulative or synergistic effects, within the site and the locality.

(i) Hazard and risk analysis.

(j) Management of wastes containing hazardous substances.

(k) Proposed contingency measures and emergency plans.

(l) Proposed monitoring and maintenance schedules.

(la) Any consultation, assessment or responses received from the New Zealand Fire Service.

(lb) Proposed methods to achieve HSNO compliance

Table HT1 Permitted Quantities by Zone

Hazardous substance Property and Class	HSNO Subclass	Industrial Zone Agricultural Research Centre Campus Waikato Innovation Park	Rural Zone Coastal Business	Living Zone Country Living Recreation Pa
Explosive 1	1.1 (all)	50kg	20kg	0
	1.2 (all)	500kg	200kg	0
	1.3 (all)	1500kg	500kg	0
	1.2 or 1.3 with 1.1	50kg	20kg	0
Flammable 2 (gases) (Aerosols)	2.1 (all)	1,000kg or 2,000m^3	500kg or 1,000m^3	20kg or 40m^3
	2.1 (within 50m of m.s.z.)	200kg	100kg	na
	All other non-hazardous	5,000kg or 10,000m^3	2,000kg or 4,000m^3	100kg
	LPG	3,000kg	1500kg	100kg
	LPG (within 50m of m.s.z.)	1,000kg	500kg	na
Flammable 3 (Liquids)	3.1A, 3.1B	6,000kg	2,000kg	100kg
	3.1A, 3.1B (within 50m of m.s.z.)	2,000kg	600kg	na
	3.1C	20,000kg	6,000kg	300kg
	3.1D	60,000kg	20,000kg	1,000kg
	3.2 (all)	3,000kg	1,000kg	50kg
Flammable 4 (Solids)	4.1 (all)	3,000kg	1,000kg	50kg
	4.2 (all)	1,000kg	400kg	20kg
	4.3 (all)	1,000kg	400kg	20kg

Hazardous substance Property and Class	HSNO Subclass	Industrial Zone Agricultural Research Centre Campus Waikato Innovation Park	Rural Zone Coastal Business	Living Zone Country Living Recreation Pa
Oxidising Capacity 5	5.1.2 Gases	1,000m^3	400m^3	40m^3
	5.1.1 (all)	3,000kg	1500kg	50kg
	5.2 (all)	1,000kg	500kg	20kg
Toxic 6	6.1A	500kg	200kg	0
	6.1 Gases	300m^3	100m^3	0
	6.1A (within 50m of m.s.z.)	200kg	100kg	0
	6.1B, 6.3-6.9	6,000kg	2,000kg	50kg
	6.1B, 6.3-6.9 (within 50m of m.s.z.)	2,000kg	1,000kg	na
	6.1C	20,000kg	6,000kg	300kg
	6.1C (within 50m of m.s.z.)	6,000kg	2,000kg	50kg
Corrosive 8	8.1, 8.2A, 8.3	6,000kg	2,000kg	50kg
	8.2B, 8.2C	20,000kg	10,000kg	300kg
Eco-toxic 9	9.1A, 9.2A, 9.3A, 9.4A	500kg	500kg	500kg
	(within 30m of water body or coastal water)	100kg	100kg	100kg
	9.1B, 9.2B, 9.3B, 9.4B	10,000kg	10,000kg	10,000kg
	(within 30m of water body or coastal water)	3,000kg	3,000kg	3,000kg
	9.1C, 9.2C, 9.3C, 9.4C	30,000kg	30,000kg	30,000kg

Hazardous substance Property and Class	HSNO Subclass	Industrial Zone Agricultural Research Centre Campus Waikato Innovation Park	Rural Zone Coastal Business	Living Zone Country Living Recreation Pa
	(within 30m of water body or coastal water)	10,000kg	10,000kg	10,000kg
High BOD^5		100,000kg	40,000kg	20,000kg
(>10,000 mg/l)	(within 30m of water body or coastal water)	40,000kg	20,000kg	20,000kg

H4 Interpretation of Table HT1

All – means all categories as defined in the Hazardous Substances (Classification) Regulations 2001. (Categories are identified alphabetically for particular classes of hazardous substance. For example class 1 explosives is divided into categories A-H, J, K, L, N and S.)

BOD^5 – the biochemical oxygen demand (measured over a 5 day period), which is the amount of dissolved oxygen in a body of water required for the breakdown of organic matter in the water.

Class 1.2 and 1.3 substances are to be treated as class 1.1 substances if they are stored with class 1.1 substances.

HSNO subclass – has its meaning in the Hazardous Substances (Classification) Regulations 2001.

m.s.z. – means more sensitive zone in the following order of sensitivity:

- Industrial Zones, Agricultural Research Centre Campus (least sensitive)
- Rural Zone, Coastal Zone and Business Zone
- Pa Zone, Living Zone, Country Living and Recreation Zone (most sensitive), e.g. the Rural Zone is more sensitive than the Industrial Zones, but less sensitive than the Living Zone.

H5 Conditions for all permitted activities

The following conditions apply to all activities permitted under this appendix.

Table HT2: Conditions for permitted activities	
Item	Condition
H5.1 Site design	Any part of a site that is involved in the manufacture, mixing, packaging, storage, loading, transfer, usage or handling of hazardous substances is designed, constructed and operated in a manner that prevents: (a) the occurrence of any off-site adverse effects from the activity on people, ecosystems, physical structures and other parts of the environment, or (b) the contamination of air, land or water (including groundwater, potable water supplies and surface waters) in the event of a spill or other type of release of hazardous substances.
H5.2 Site layout	The separation between on-site facilities and the property boundary is adequate to protect neighbouring facilities, land uses and sensitive environments.
H5.3 Storage	The storage of any hazardous substances is managed to prevent: (a) the unintentional release of the hazardous substance, and (b) the accumulation of any liquid or solid spills or fugitive vapours and gases in enclosed areas, that might have adverse effects on people, ecosystems or built structures.
H5.4 Drainage systems	Site drainage systems are designed, constructed and operated in a manner that prevents the entry or discharge of hazardous substances into the stormwater or wastewater systems unless permitted by a network utility operator. Compliance can be achieved using precautionary methods, including clearly identified stormwater grates and access holes, roofing, sloped pavements, interceptor drains, containment and diversion valves, oil-water separators, sumps and similar systems.

Table HT2: Conditions for permitted activities	
Item	Condition
H5.5 Spill containment	Any parts of the site where a hazardous substance spill may occur must be serviced by a suitable spill containment system that is: (a) constructed from impervious materials resistant to the hazardous substances used, stored, manufactured, mixed, packaged, loaded, unloaded or otherwise handled on the site, and for liquid hazardous substances (i) able to contain the maximum volume of the largest tank present plus an allowance for stormwater or fire water, and (ii) for drums or other smaller containers, able to contain half of the maximum volume of substances stored, plus an allowance for stormwater or fire water, and (b) able to prevent any spill or other unintentional release of hazardous substances, and any stormwater or fire water that has become contaminated, from entering the stormwater drainage system, unless permitted by a network utility, and (c) able to prevent any spill or other unintentional release of hazardous substances, and any stormwater or fire water that has become contaminated, from discharging into or onto land or water (including drainage systems, groundwater and potable water supplies) unless permitted by a resource consent. Suitable means of compliance include graded floors and surfaces, bunding, roofing, sumps, fire-water catchments, overfill protection and alarms, and similar systems.
H5.6 Stormwater	All stormwater grates on the site are clearly labelled "Stormwater Only".
H5.7 Wash down areas	Any part of the site where vehicles, equipment or containers that are, or may be, contaminated with hazardous substances are washed must be designed, constructed and managed to prevent any contaminated wash water from: (a) entry or discharge into the stormwater drainage or the wastewater system unless permitted by a network utility operator, and (b) discharge into or onto land or water (including groundwater and potable water supplies) permitted by resource consent. Suitable means of compliance include roofing, sloped pavements, interceptor drains, containment and diversion valves, oil-water separators and sumps.

Table HT2: Conditions for permitted activities	
Item	Condition
H5.8 Underground storage tanks	Underground tanks for petroleum product storage must be designed, constructed and managed to prevent leakage and spills, and adverse effects on people, ecosystems and property. Underground storage tanks are: (a) constructed from impervious materials resistant to the hazardous substances to be stored, and (b) equipped with secondary containment facilities in areas of environmental sensitivity, and (c) serviced by a leak detection or monitoring system that is capable of detecting a failure or breach in the structural integrity in the primary containment vessel.
H5.9 Signage	Signs are placed in compliance with the Hazardous Substances and New Organisms Act 1996.
H5.10 Waste management	Waste containing hazardous substances is stored in a manner that prevents: (a) exposure to ignition sources, and (b) the corrosion or other alteration of the containers used for the storage of the waste, and (c) the unintentional release of the waste. Wastes are disposed of to authorised facilities.
H5.11 Records	Records are kept of all types and quantities of hazardous substances and wastes produced or stored on the site. Records note method of waste disposal.

Reasons and explanations are stated in Chapter 29.