19. Hazardous Substances

Explanatory Statement

The district is predominantly rural land in farming and horticulture and has a number of small urban centres containing a mix of industrial, commercial and residential activities. Farming and horticultural activities require the transportation, storage and use of a range of hazardous substances while some industry and commercial activities are large users of hazardous substances.

The Hazardous Substances and New Organisms Act 1996 has established minimum standards to deal with such things as the identification, labelling, packaging, storage and use and disposal of hazardous substances. It does not provide for managing the potential effects of hazardous substances on sensitive environments and is not able to address particular concerns of local communities. These are the functions of Local Authorities under the Resource Management Act.

The Resource Management Act 1991 gives responsibility for the management of hazardous substances to both Regional and District Councils. The Regional Councils functions relate to the discharge of contaminants to land, air and water and Environment Bay of Plenty manages these through its Regional Air Plan and the Regional Water and Land Plan. District Councils control the use of land to manage any effect of the use, storage and transportation of hazardous substances on specific environments and communities within the District and will manage location, design and operational aspects of activities using hazardous substances to ensure the effects are within acceptable limits and the potential risks of significant adverse effects are low.

In relation to the transportation of hazardous substances, District Plan rules have not been considered necessary as this aspect is adequately controlled by separate transport legislation, New Zealand Standards and codes of practice.

Some activities are specifically excluded from the controls of the District Plan as they are either impractical to control under the District Plan, have minor potential effects or are controlled through other means or legislation. These include the storage and use of fuels in vehicles, boats etc, consumer products for domestic use, oil and gas pipelines and tradewaste sewers and their treatment and disposal facilities.

19.1 Significant Issues

19.1.1 Hazardous substances and their use, storage and handling present potential sources of risk to both the environment and human health and safety.

19.1.2 If hazardous facilities are not located appropriately or managed properly the accidental release off, or loss of control of hazardous substances can adversely affect human health and adversely affect water, soil and ecosystems.

19.1.3 Increasing intensification and development of land within the district both for horticulture and business activities has the potential to increase the amount and range of hazardous substances used. This may subsequently increase the risk to people and the environment from the use of hazardous substances.

19.1.4 Methods for managing the use of hazardous substances need to be flexible to provide for the diversity of land uses and business activity and to allow the different sensitive environments within the District to be protected.

19.2 Objectives & Policies

19.2.1 Objectives

1. Use, storage and handling of hazardous substances with no significant adverse effect or risk of adverse effect on the environment or human health and safety.

19.2.2 Policies

1. Ensure the location, design and management of all new hazardous facilities maintain environmental and people health and safety.

2. Have regard to industry codes of practice as a method of managing hazardous facilities.

19.3 Rules

A modified Hazardous Facility Screening Procedure (HFSP) method will be applied to all proposed new facilities manufacturing, using or storing hazardous substances or generating or disposing hazardous wastes. Existing facilities as at 21 August 2004 will not be subject to these controls unless they significantly expand or alter their operations.

A significant expansion or alteration occurs when the effects of the use are not the same or similar in character, intensity or scale as previously, as is defined by Sections 10, 10A and 20 of the Resource Management Act. In general, a significant change is defined as a 20-30% or higher total increase in the storage or use of hazardous substances regardless of time, or a change in the type of operations or processes carried out on the site.

Using a modified HFSP method provides a table of allowable hazardous substances quantities for different HSNO classes and sub-classes, and land use zones. Where an activity involves hazardous substances exceeding the threshold quantities contained in the table, it becomes a discretionary activity and a resource consent is required. Minimum performance standards are provided for all permitted activities. Where any one performance standard cannot be met the activity becomes a restricted discretionary activity for that particular non-compliance.

Where two or more hazardous facilities are located on one site and are separated by more than 30 metres from any other hazardous facility on the same site, each facility will be assessed independently of each other under this rule.

Compliance with the District Plan rules does not avoid the requirement to comply with other legislation including the Hazardous Substances and New Organisms Act 1996, Building Act or their regulations.

19.3.1 General Matters relating to Hazardous Facilities

(a) Exceptions

The following hazardous substances and facilities are not subject to the provisions of this section.

1. Fuel contained in tanks of motor vehicles, boats, aircraft and small engines.
2. The storage and use of hazardous consumer products in domestic quantities, including flammable gases.
3. The storage of hazardous consumer products for sale in retail outlets, e.g. supermarkets, hardware shops and pharmacies.
4. Gas and oil pipelines.
5. Trade waste sewers, or waste treatment and disposal facilities.

19.3.2 Permitted activities

(a) Any hazardous facility involving hazardous substances that are less than or equal to the threshold quantities as contained in Table 1 in rule 19.3.5 for the zone in which it is located.

(b) Service stations which store fuels not exceeding the following volumes using the following methods:

petrol – 100,000 litres in underground storage tanks
diesel – 50,000 litres in underground storage tanks
LPG – 6 tonnes single vessel storage

that complies with the relevant following codes of practice or Standard:

(i) Code of Practice for the Design, Installation and Operation of Underground Petroleum Systems – Department of Labour 1992 and Supplement I (1995).

(ii) AS 1596 – 2002 Storage and Handling of LP Gas.

Are permitted activities for Section 19 controls only.

(c) Hazardous facilities that are part of a permitted activity in the Rural Zones and that comply with the New Zealand Standard NZS8409:2004 Management of Agrichemicals

Except that:

those activities that exceed the quantity thresholds listed in Table 1 of Rule 19.3.5 under either Group 5 Land Use Zones and/or Class 9 substances located within 30 metres of fresh surface water or 50 metres of estuaries and harbours are discretionary activities.

19.3.3 Restricted Discretionary Activities

(a) Any hazardous facility involving hazardous substances that are less than or equal to the threshold quantities contained in Table 1 in rule 19.3.5 for the zone in which it is located and which fails to comply with any one of the permitted activity standards listed in rule 19.3.6 is a restricted discretionary activity for that particular non-compliance.

19.3.4 Discretionary activities

(a) Any hazardous facility involving hazardous substances that exceed the threshold quantities contained in Table 1 in rule 19.3.5 for the zone in which it is located.

(b) Service stations exceeding the limits in Rule 19.3.2(b) within the Industrial Zone.

(c) Facilities primarily designed for the disposal or destruction of hazardous substances and hazardous wastes.

19.3.5 Quantity Thresholds for Hazardous Facilities

When assessing a hazardous facility against the quantity thresholds contained on Table 1, the assessment procedure outlined in Appendix XI shall be followed. For the purposes of Rule 19.3.5, each reference in Table 1 to "Adjacent to a water body" means within 30 metres of Fresh Surface Water and 50 metres of estuaries, harbours and wetlands. In this context, "Fresh Surface Water" means fresh water in a river, lake (including pond), stream, modified watercourse, and drain but excludes wetlands. In this context, "Drain" means an open artificial watercourse used for land drainage purposes but excludes artificial watercourses on land being used for agricultural or horticultural purposes. This definition does not include modified watercourses, which are naturally formed watercourses which have been modified."

Table 1: Proposed Hazardous Substance Quantity Thresholds

HSNO[1] Class	Description	HSNO Sub-Class	Land Use Zone				
			Group 1	Group 2	Group 3	Group 4	Group 5
			Rural G Rural H	Industrial and Rangiuru Business Park	Future Urban	Commercial Group 1,2, or 3 within 20 m of Group 4 boundary	Residential Rural-Residential Natural Environment Areas subject to flooding Group 1, 2, 3 or 4 within 30 m of Group 5 boundary
			CSI[2] = 0.75	CSI = 0.5	CSI = 0.25	CSI = 0.1	CSI = 0.02
Class 1	Explosives	1.1	38 (kg)	25 (kg)	13 (kg)	5 (kg)	1 (kg)
		1.2	188 (kg)	125 (kg)	63 (kg)	25 (kg)	5 (kg)
		1.3 and 1.4	563 (kg)	375 (kg)	188 (kg)	75 (kg)	15 (kg)
Class 2	Flammable gases	2.1	750 (kg or m3)	500 (kg or m3)	250 (kg or m3)	100 (kg or m3)	20 (kg or m3)
	LPG	LPG	2,250 (kg)	1,500 (kg)	750 (kg)	300 (kg)	60 (kg)
Class 3	Flammable liquids	3.1A-B, 3.2	3,750 (kg)	2,500 (kg)	1,250 (kg)	500 (kg)	100 (kg)
		3.1C	7,500 (kg)	5,000 (kg)	2,500 (kg)	1,000 (kg)	200 (kg)
		3.1D	15,000 (kg)	10,000 (kg)	5,000 (kg)	2,000 (kg)	400 (kg)
Class 4	Flammable solids	4.1.2A-B, 4.1.3A-C, 4.2A-B, 4.3A-B	1,125 (kg)	750 (kg)	375 (kg)	150 (kg)	30 (kg)
		4.1.1A, 4.1.2C-D, 4.2C, 4.3C	5,625 (kg)	3,750 (kg)	1,875 (kg)	750 (kg)	150 (kg)
		4.1.1B, 4.1.2E-G	16,875 (kg)	11,250 (kg)	5,625 (kg)	2,250 (kg)	450 (kg)
Class 5	Oxidising substances	5.1.1A-B, 5.2A-B	375 (kg)	250 (kg)	125 (kg)	50 (kg)	10 (kg)
		5.1.1C, 5.2C-D	1,125 (kg)	750 (kg)	375 (kg)	150 (kg)	30 (kg)
		5.2E-G	2,250 (kg)	1,500 (kg)	750 (kg)	300 (kg)	60 (kg)
		5.1.2A	188 (m3)	125 (m3)	63 (m3)	25 (m3)	5 (m3)

[1] Only those classes and sub-classes of hazardous substances that are considered to have potential for significant off-site effects are included within the Table.

[2] The Consent Status Index (CSI) is used to determine the status of an activity under the Hazardous Facility Screening Procedure. It is shown in Table 1 to indicate the basis on which the specific quantities in the table have been derived for the modified HFSP method included in this Plan.

HSNO[1] Class	Description	HSNO Sub-Class	Land Use Zone				
			Group 1	Group 2	Group 3	Group 4	Group 5
			Rural G Rural H	Industrial and Rangiuru Business Park	Future Urban	Commercial Group 1,2, or 3 within 20 m of Group 4 boundary	Residential Rural-Residential Natural Environment Areas subject to flooding Group 1, 2, 3 or 4 within 30 m of Group 5 boundary
			CSI[2] = 0.75	CSI = 0.5	CSI = 0.25	CSI = 0.1	CSI = 0.02
Class 6	Toxic substances	6.1A-B	375 (kg)	250 (kg)	125 (kg)	50 (kg)	10 (kg)
		6.1A-B	2 (m3)	1 (m3)	1 (m3)	0 (m3)	0 (m3)
		6.1C	1,875 (kg)	1,250 (kg)	625 (kg)	250 (kg)	50 (kg)
		6.1C	3 (m3)	2 (m3)	1 (m3)	0 (m3)	0 (m3)
		6.1D	5,625 (kg)	3,750 (kg)	1,875 (kg)	750 (kg)	150 (kg)
		6.1D	9 (m3)	6 (m3)	3 (m3)	1 (m3)	0 (m3)
Class 8	Corrosives	8.2A	375 (kg)	250 (kg)	125 (kg)	50 (kg)	10 (kg)
		8.2B	1,875 (kg)	1,250 (kg)	625 (kg)	250 (kg)	50 (kg)
		8.2C	5,625 (kg)	3,750 (kg)	1,875 (kg)	750 (kg)	150 (kg)
Class 9	Ecotoxic substances	9.1A	1,125 (kg)	750 (kg)	375 (kg)	150 (kg)	30 (kg)
		9.1B	5,625 (kg)	3,750 (kg)	1,875 (kg)	750 (kg)	150 (kg)
		9.1C-D	18,750 (kg)	12,500 (kg)	6,250 (kg)	2,500 (kg)	500 (kg)
		9.1A (Adjacent to a water body)	338 (kg)	225 (kg)	113 (kg)	45 (kg)	9 (kg)
		9.1B (Adjacent to a water body)	1,688 (kg)	1,125 (kg)	563 (kg)	225 (kg)	45 (kg)
		9.1C-D (Adjacent to a water body)	5,625 (kg)	3,750 (kg)	1,875 (kg)	750 (kg)	150 (kg)

[1] Only those classes and sub-classes of hazardous substances that are considered to have potential for significant off-site effects are included within the Table.

[2] The Consent Status Index (CSI) is used to determine the status of an activity under the Hazardous Facility Screening Procedure. It is shown in Table 1 to indicate the basis on which the specific quantities in the table have been derived for the modified HFSP method included in this Plan.

19.3.6 Activity Performance Standards

The following performance standards shall be met by all permitted and controlled activities and shall be used as a guide for all other activities. Any permitted activity which fails to comply with any of these standards shall be deemed a Restricted Discretionary Activity for the particular non-compliance.

(a) Site design

Any part of a hazardous facility site where hazardous substances are used, stored, manufactured, mixed, packaged, loaded, unloaded or otherwise handled shall be designed, constructed and operated in a manner that prevents:

(i) The contamination of air, land and/or water (including groundwater and potable water supplies) in the event of a spill or other unintentional release of hazardous substances.

(ii) The entry or discharge of the hazardous substance into the stormwater drainage system in the event of a spill or other unintentional release.

(iii) The entry or discharge of the hazardous substance into the sewerage system in the event of a spill or other unintentional release.

(b) Hazardous Facility Site Layout

The hazardous facility is designed in a manner to ensure that separation between on-site facilities and the property boundary is sufficient for the protection of neighbouring facilities, land uses and sensitive environments.

(c) Spill Containment System

The parts of the hazardous facility where hazardous substances are used, stored manufactured, mixed, packaged, loaded or otherwise handled shall be served by a spill containment system:

(i) Constructed from impervious materials resistant to the hazardous substances used, stored, manufactured, mixed, packaged, loaded, unloaded or otherwise handled on the site.

(ii) Able to contain the maximum volume of the largest tank used, or where drums or other containers are used, able to contain half of the maximum volume of substances stored, plus an allowance for stormwater or firewater.

(iii) Able to prevent any spill or other unintentional release of hazardous substances, and any stormwater and/or fire water that has become contaminated, from entering the stormwater drainage system.

(iv) Able to prevent any spill or other unintentional release of hazardous substances, and any stormwater and/or fire water that has become contaminated, from discharging into or onto land and/or water (including groundwater and potable water supplies) unless permitted by a resource consent.

(v) Maintained and operated to be effective in the event of a spill.

(d) Stormwater Drainage

All stormwater grates on the site shall be clearly labeled 'Stormwater Only'.

(e) Washdown Area

Any part of the hazardous facility site where vehicles, equipment or containers that are or may have become contaminated with hazardous substances are washed shall be designed, constructed and operated in a manner that prevents the effluent from the washdown area from:

(i) Entry or discharge into the stormwater drainage or the sewerage system unless permitted by the network utility operator.

(ii) Discharges into or onto land and/or water (including groundwater and potable water supplies) unless permitted by a regional resource consent or by a relevant rule in the regional plan.

(f) Fuel Storage Tanks

Tanks for the storage of petroleum products shall be designed, constructed and managed to prevent leakage and spills. Adherence to the Code of Practice for 'Design, Installation and Operation of Underground Petroleum Systems' (Department of Labour - Occupational Safety and Health) is deemed to be one method of complying with this condition. LPG tanks shall be designed and sited in accordance with AS/NZS 1596-2002 for the storage and handling of LP Gas.

(g) Signage

All facilities must display signage to indicate the nature of the hazardous substances present. Compliance with the provisions of the Hazardous Substances and New Organisms Act 1996, the requirements of the Building Code (F8), or the Code of Practice "Signage for Premises Storing Hazardous Substances and Dangerous Goods" of the New Zealand Chemical Industry Council (2004) are minimum requirements.

(h) Waste Management

(i) Any process waste or waste containing hazardous substances shall be managed to prevent:

- The waste entering or discharging into the stormwater drainage system.

- The waste entering or discharging into the sewerage system unless permitted by the sewerage utility operator.

- The waste discharging into or onto land and/or water (including groundwater and potable water supplies) unless permitted by a regional resource consent or by a relevant rule in the regional plan.

(ii) The storage of any waste containing hazardous substance shall be in a manner that prevents:

- The exposure to ignition sources.

- The corrosion or other alteration of the containers used for the storage of the waste.

- The unintentional release of the waste.

(iii) Any facility generating waste containing hazardous substances shall dispose of these wastes to appropriately permitted facilities.

19.3.7 Assessment Criteria for Restricted Discretionary and Discretionary Activities

(a) Where the hazardous facility is a restricted discretionary or discretionary activity, the consent application shall be accompanied by an assessment of environmental effects that address the relevant matters referred to below.

This shall be provided in such detail as corresponds with the scale and significance of the actual or potential effects and risks of the proposed development. An application will be assessed having regard to the following matters:

(i) Consistency with the objectives, policies and rules for the relevant zone.

(ii) The activity status of the hazardous facility had it been assessed under the Hazardous Facility Screening Procedure as outlined in the Ministry of the Environment Publication "Land Use Planning Guide for Hazardous Facilities, 2002".

(iii) Risk to people and the environment.

A qualitative or quantitative risk assessment may be required, depending on the scale or potential effects of the proposed development. This assessment should include but not be limited to the following:

- Identification of potential hazards, failure modes and exposure pathways.
- The potential effects to neighbouring activities, with emphasis on people sensitive activities such as child care facilities, schools, rest homes, hospitals, shopping centres and residential areas including that resulting from the transportation of hazardous substances.
- The location of the facility in relation to the nearest aquifer, waterway, coast or other sensitive environments.
- The nature of the sub-soil and the site geology.
- The distance to environmentally sensitive areas such as wildlife habitats or water catchments.
- Assessment of the probability and potential consequences of an accident leading to a release of a hazardous substance or loss of control.
- Identification of cumulative and/or synergistic effects.
- Fire safety and fire water management – Comment from the New Zealand Fire Service should be provided.
- Adherence to health and safety and/or environmental management systems.
- Spill contingency and emergency planning, monitoring and maintenance schedules.
- Site drainage and off-site infrastructure, eg stormwater drainage system, sewer type and capacity.
- The disposal of waters containing hazardous substances.

(iv) Risk Mitigation and Management

Consideration will be given to compliance with existing approved codes of practice for storing and use of hazardous substances, specific spill contingency plans, emergency procedures, stormwater management and treatment, treatment and disposal procedures for wastes containing hazardous substances, fire safety, monitoring and maintenance procedures, and appropriate site management systems.

(iv) Alternatives

Where it is likely that an activity may result in significant adverse effects on people or the environment, consideration will be given to alternative locations or methods for undertaking the activity.

(v) Traffic Safety

It should be demonstrated that the proposal will generate no significant adverse effects on the safety of the operation of the adjoining road network.