

## APPENDIX B - OFFICER'S RECOMMENDED AMENDMENTS TO THE HAZARDOUS SUBSTANCES CHAPTER INCLUDING RELATED DEFINITIONS

Note: Text shown in ~~red strikethrough~~ indicates text recommended to be deleted and red underlined text indicates text recommended to be inserted.

### HS — Hazardous Substances

#### Overview

Hazardous substances include explosives, pesticides, industrial chemicals, paints, fertilisers and petrol, household cleaners, cosmetics and many other substances. Hazardous Substances are regulated under the Hazardous Substances and New Organisms Act 1996 (HSNO) and the Health and Safety at Work Act 2015. The district plan has the supporting role of controlling the land use activities including man-made hazards of a chemical nature.

Land use activities involving hazardous substances have the potential to result in an increased risk of adverse environmental effects to those members of the public who could be exposed to the substances, and the surrounding environment.

Risks are influenced by the nature of the hazardous substances, the quantity of the substances, the effects the substance may have, the likelihood of an event occurring and which parts of the environment may be affected. An event may be an accidental release, spill, unintended chemical reaction, fire or explosion.

Risks are influenced by the location of an activity and the surrounding environment. For example, hazardous facilities located in areas subject to natural hazards may be exposed to greater risks of damage or failure resulting in an event involving a hazardous substance.

The provisions of this chapter acknowledge the benefits of hazardous substances, while aiming to minimise the adverse effects of hazardous substances in relation to sensitive activities (i.e. residential activities, schools, places of assembly) and sensitive environments (i.e. wetlands, waterways), areas of identified natural hazards and cumulative effects where multiple hazardous facilities are located within proximity to each other. Hazardous substances stored or used in identified natural hazards areas are separately addressed in the Natural Hazards chapter.

The rules control quantities of defined hazardous substances classes that are significant enough to potentially pose a significant risk to public safety and the environment with respect to the various zones across the Kaipara District. The sites where such activities take place are defined as significant hazardous facilities. These provisions assist other legislation in the management of hazardous substances in significant quantities, taking location into account.

Significant Hazardous Facility is a defined term in this Plan. It applies to activities involving hazardous substances that exceed the permitted activity thresholds in Standard HS-S1 (Hazardous substances permitted activity thresholds). The provisions of this chapter focus on managing the residual land-use effects of such activities, effects that are not fully addressed by the Hazardous Substances and New Organisms Act 1996 (HSNO) or the Health and Safety at Work Act 2015 (HSWA). These residual effects include:

- the location of significant hazardous facilities relative to sensitive activities and environments;
- cumulative effects arising from multiple facilities;
- exposure to natural hazards; and
- reverse sensitivity effects on established hazardous facilities.

The provisions of this chapter are not intended to duplicate controls under HSNO or HSWA. Compliance with those Acts is assumed, and the District Plan controls apply only to land-use effects within Council's functions under section 31 of the RMA.

Note: Activities involving hazardous substances within the Gas or Petroleum Pipeline Corridor are subject to specific controls in INF-R56 of the Infrastructure chapter.

## Objectives

<b>HS-O1</b>	<b>Risks associated with hazardous substances</b>
Hazardous substance use, storage, transport and disposal activities are located, designed and managed, so that the risk to people, property and the environment is acceptable, while recognising the benefits of those activities.	
<b>HS-O2</b>	<b>New sensitive activities</b>
Established activities using, storing or disposing of hazardous substances are not compromised by new sensitive activities.	

## Policies

<b>HS-P1</b>	<b>Significant Hazardous Facilities</b>
<p><u>Significant Hazardous facilities</u> must minimise the risk to the environment (including people and property) by:</p> <ol style="list-style-type: none"> <li>1. Siting new <u>significant</u> hazardous facilities in appropriate locations that are separated from incompatible activities, such as sensitive land use and infrastructure, and sensitive environments;</li> <li>2. Designing, constructing and operating <u>significant</u> hazardous facilities in a manner that ensures the adverse effects of the operation or an accidental event involving hazardous substances can be contained within the site; and</li> <li>3. Disposing hazardous wastes to authorised disposal or treatment facilities that have appropriate management systems in place and avoiding the storage, processing or disposal of hazardous wastes in sensitive environments.</li> </ol>	
<b>HS-P2</b>	<b>Assessment of risk</b>
<p><del>Ensure facilities for the use, storage or disposal of hazardous substances in significant quantities</del> <u>Ensure that significant hazardous facilities</u> identify and assess potential adverse effects (including cumulative risk and potential effects of identified natural hazards) to prevent unacceptable levels of risk to human health, safety, property and the natural environment.</p>	
<b>HS-P3</b>	<b>Reverse sensitivity effects</b>
Avoid as far as practicable reverse sensitivity effects from sensitive land use activities on lawfully established significant hazardous facilities.	

## Rules

<b>HS-R1</b>	<b>The use, storage or disposal of any hazardous substances</b>	
<b>All zones</b>	<p><b>1. Activity status:</b> Permitted</p> <p><b>Where:</b></p> <ul style="list-style-type: none"> <li>a. The aggregate quantity of any hazardous substance of any hazard classification on a site does not exceed the <del>quantity applicable threshold</del> specified for the <del>applicable zone in the HS-S1 Hazardous substances permitted activity thresholds table in HS-S1</del>.</li> <li>b. <u>The hazardous substances are at an emergency services facility or activity associated with emergency services.</u></li> </ul>	<p><b>2. Activity status when compliance not achieved:</b> Restricted Discretionary</p> <p><b>3. Matters over which discretion is restricted:</b></p> <ul style="list-style-type: none"> <li>a. HS-MAT1; and</li> <li>b. HS-MAT2</li> </ul>

<b>HS-R2</b>	<b>Radioactive material</b>	
<b>All zones</b>	<p><b>1. Activity status:</b> Permitted</p> <p><b>Where:</b></p> <ul style="list-style-type: none"> <li>a. The storage or use of radioactive material is:                             <ul style="list-style-type: none"> <li>i. An approved equipment for medical and diagnostic purposes; or</li> <li>ii. Specified as an exempt activity or article in the Radiation Safety Act and Regulations 2016.</li> </ul> </li> </ul>	<p><b>2. Activity status when compliance not achieved:</b> Restricted Discretionary</p> <p><b>3. Matters over which discretion is restricted:</b></p> <ul style="list-style-type: none"> <li>a. HS-MAT1; and</li> <li>b. HS-MAT2</li> </ul>

<b>HS-R3</b>	<b>Fertiliser storage</b>	
<b>General rural zone</b>	<p><b>1. Activity status:</b> Permitted</p> <p><b>Where:</b></p> <ul style="list-style-type: none"> <li>a. Fertiliser is temporarily stored for rural production activities and is classed as sub-class 6.3, 6.4 and 6.5; and</li> <li>b. The storage location is more than 30m from a watercourse; and</li> <li>c. the duration of the storage does not exceed 28 days within any 12-month period; and</li> <li>d. The substance stored is intended for rural production use and not for retail sale.</li> </ul>	<p><b>2. Activity status when compliance not achieved:</b> Restricted Discretionary</p> <p><b>3. Matters over which discretion is restricted:</b></p> <ul style="list-style-type: none"> <li>a. HS-MAT1; and</li> <li>b. HS-MAT2</li> </ul>

HS-R4	<b>Use, storage and disposal of hazardous substance subclasses 1.4, 1.5, 1.6, 6.1D, 6.1E, 9.1D and 9.2D</b>	
All zones	<p><b>1. Activity status:</b> Permitted</p> <p><b>Where:</b></p> <p>a. The hazardous substance is in subclasses 1.4, 1.5, 1.6, 6.1D, 6.1E, 9.1D and 9.2D.</p>	<p><b>2. Activity status when compliance not achieved:</b> Not Applicable</p>

HS-R5	<b>The storage of fuel for retail sale within a service station</b>	
<p><b>General rural zone, Commercial zone, Light and Heavy industrial zones</b></p>	<p><b>1. Activity status:</b> Controlled</p> <p><b>Where:</b></p> <p>a. The storage of the following maximum volumes for fuel for retail sale within a service station:</p> <ul style="list-style-type: none"> <li>i. 100,000 litres of petrol in underground storage tanks;</li> <li>ii. 50,000 litres of diesel in underground storage tanks; and</li> <li>iii. 6 tonnes of LPG (single vessel storage).</li> </ul> <p><b>2. Matters over which control is reserved over:</b></p> <ul style="list-style-type: none"> <li>a. The proposed site design and layout in relation to:                             <ul style="list-style-type: none"> <li>i. The sensitivity of the surrounding natural, human and physical environment; potential hazards and exposure pathways arising from the proposed hazardous facility, including cumulative risks with other facilities;</li> <li>ii. Interaction with natural hazards (flooding, instability), as applicable and proposed emergency management planning (spills, fire and other relevant hazards);</li> </ul> </li> <li>b. Procedures for monitoring and reporting of incidents.</li> </ul>	<p><b>2. Activity status when compliance not achieved:</b> Restricted Discretionary</p> <p><b>3. Matters over which discretion is restricted:</b></p> <ul style="list-style-type: none"> <li>a. HS-MAT1; and</li> <li>b. HS-MAT2</li> </ul>

<p>General residential zone, Rural lifestyle zone, Open space zone, Natural open space zone, Sport and active recreation zone, Māori purpose zone, and Hospital zone</p>	<p><b>1. Activity status:</b> Restricted Discretionary</p> <p><b>Where:</b></p> <ul style="list-style-type: none"> <li>a. <u>The storage of the following maximum volumes for fuel for retail sale within a service station:</u> <ul style="list-style-type: none"> <li>iii. <u>100,000 litres of petrol in underground storage tanks;</u></li> <li>iv. <u>50,000 litres of diesel in underground storage tanks; and</u></li> <li>v. <u>6 tonnes of LPG (single vessel storage).</u></li> </ul> </li> </ul> <p><b>2. Matters over which control is reserved over:</b></p> <ul style="list-style-type: none"> <li>a. <u>The proposed site design and layout in relation to:</u> <ul style="list-style-type: none"> <li>i. <u>The sensitivity of the surrounding natural, human and physical environment; potential hazards and exposure pathways arising from the proposed hazardous facility, including cumulative risks with other facilities;</u></li> <li>ii. <u>Interaction with natural hazards (flooding, instability), as applicable and proposed emergency management planning (spills, fire and other relevant hazards);</u></li> </ul> </li> <li>b. <u>Procedures for monitoring and reporting of incidents.</u></li> </ul>	<p><b>2. Activity status when compliance not achieved:</b> Discretionary</p> <p><b>3. Matters over which discretion is restricted:</b></p> <ul style="list-style-type: none"> <li>a. HS-MAT1; and</li> <li>b. HS-MAT2</li> </ul>
--	---	--

## Matters for Discretion

HS-MAT1	Location and design of hazardous facility
All zones	<ul style="list-style-type: none"> <li>a. How the hazardous facility is located on the site, taking into account separation from site boundaries, zone boundaries and other more sensitive land uses;</li> <li>b. How the design and proposed management contributes to the minimisation of adverse effects on the environment, including effects on natural ecosystems and the life supporting capacity of land and water, waterbodies and sources of potable water; and</li> <li>c. The operational or functional need for the hazardous facility to be in that location.</li> </ul>

HS-MAT2	Risk associated with the hazardous facility and transportation
All zones	<ul style="list-style-type: none"> <li>a. The individual risks of the hazardous facility and cumulative risks with other hazardous facilities in the vicinity, as relevant;</li> <li>b. The actual and potential adverse effects associated with the transport of a hazardous substance on road infrastructure or on sensitive land uses along transport routes, if this is a significant aspect of the facility;</li> <li>c. Consideration of the risks posed by the occurrence of identified natural hazard events in the vicinity of the hazardous facility;</li> <li>d. The degree of social, cultural or economic benefits the facility and its associated storage, use or disposal of hazardous substances will have locally;</li> <li>e. Methods to prevent the entry or discharge of hazardous substances into groundwater, or potable water supplies, or stormwater or sewerage systems (unless authorised by the relevant network utility operator, resource consent or another rule in the Plan); and</li> <li>f. Whether an assessment of the risks has been provided which contains a level of detail corresponding to the scale and nature of the facility proposed and the hazardous substances involved.</li> <li>g. An assessment may need to include the following considerations: <ul style="list-style-type: none"> <li>i. The sensitivity of the receiving environment to any risks;</li> <li>ii. Risk identification (inherent risk) and risk management response (residual risk);</li> <li>iii. Practicable alternative method of management that would present less risk;</li> <li>iv. How the proposal minimises or mitigates cumulative adverse effects with respect to other hazardous facilities in the area;</li> <li>v. Probability and potential consequences of an accident leading to the release or loss of control of hazardous substances;</li> <li>vi. Proposed emergency management equipment and plans and the adequacy of overall emergency response capability; and</li> <li>vii. Compliance with relevant codes of practice and standards for specific substances.</li> </ul> </li> </ul> <p><b>Note:</b> <i>A risk assessment should correspond to the scale and significance of the activity and its risks. A quantitative risk assessment may be required for major hazardous facilities where the risk contributors may be significant or complex. A risk assessment should be undertaken by a suitably qualified and experienced professional.</i></p>

## Standards

HS-S1	Hazardous substances permitted activity thresholds		
GHS 7 category and sub-category (previous HSNO classification)	Zone	Zone	Zone
	Commercial Light Industrial Heavy Industrial SPZ - Hospital	General Rural SPZ - Māori Purpose	General Residential Rural Lifestyle Natural Open Space Open Space Sport and Active Recreation SPZ - Estuary Estates SPZ - Mangawhai Hills SPZ - Trifecta Development Area
<b>Explosive Class 1 Maximum Quantity (measured in tonnes, unless stated)</b>			
Unstable explosive Class 1.1 (Sub-class 1.1)	0.05	0.02	0
Unstable explosive Class 1.2 (Sub-class 1.2)	0.5	0.2	0
Unstable explosive Class 1.3 (Sub-class 1.3)	1.5	0.5	0
Unstable explosive Classes 1.2 and 1.3 (1.2 and 1.3) when stored with unstable explosive Class 1.1 (1.1)	0.05	0.02	0
<b>Flammable Gas/Aerosol Class 2 Maximum Quantity (measured in tonnes, unless stated)</b>			
Flammable gas Categories 1A, 1B and 2 and Aerosols Categories 1,2 and 3 (Sub-class 2.1, all)	1 (2,000m <sup>2</sup> )	0.5 (1,000m <sup>3</sup> )	0.2 (40m <sup>3</sup> )
Flammable gas Categories 1A, 1B and 2 and Aerosols Categories 1,2 and 3 (2.1) within 50m of a sensitive zone	0.2 (400m <sup>3</sup> )	0.1 (200m <sup>3</sup> )	n/a
LPG	3	1.5	0.1
LPG within 50m of a more sensitive zone	1	0.5	n/a
<b>Non-Hazardous Gases Maximum Quantity (measured in tonnes, unless stated)</b>			
All non-hazardous gases, compressed or liquefied	5 (10,000m <sup>3</sup> )	2 (4,000m <sup>3</sup> )	0.1 (200m <sup>3</sup> )
<b>Flammable Liquids Class 3 Maximum Quantity (measured in tonnes, unless stated)</b>			
Flammable liquids Categories 1 and 2 (Sub-class 3.1A and 3.1B)	6	2	0.1
Flammable liquids Categories 1 and 2 (3.1A and 3.1B) within 50m of a more sensitive zone	2	0.6	n/a

Flammable liquids Category 3 (3.1C)	20	6	0.3
Flammable liquids Category 4 (3.1D)	60	20	1
Desensitised explosive (liquid) Categories 1, 2 and 3 (Sub-class 3.2, all)	3	1	0.05
<b>Flammable Solids Class 4 Maximum Quantity (measured in tonnes, unless stated)</b>			
Flammable solids Categories 1 and 2; self-reactive substances and mixtures Types A, B, C, D, E, F and G; desensitised explosive (solid) Categories 1, 2 and 3 (Sub-class 4.1, all)	3	1	0.05
Pyrophoric liquids and solids Category 1; self-heating substances and mixtures Category 1 and 2 (Sub-class 4.2, all)	1	0.4	0.02
Substances and mixtures which, in contact with water, emit flammable gases Categories 1, 2 and 3 (Sub-class 4.3, all)	1	0.4	0.02
<b>Oxidising capacity Class 5 maximum quantity (measured in tonnes, unless stated)</b>			
Oxidising liquids Categories 1,2 and 3, or oxidising solids Categories 1, 2 and 3 (Sub-class 5.1.1, all)	3	1	0.05
Oxidising gases Category 1 (Sub-class 5.1.2 Gases)	1,000m <sup>3</sup>	400m <sup>3</sup>	40m <sup>3</sup>
Organic peroxide Types A, B, C,D, E, F and G (Sub-class 5.2)	1	0.5	0.02
<b>Toxic Class 6 Maximum Quantity (measured in tonnes, unless stated)</b>			
Gases with acute oral/dermal /inhalation toxicity Categories 1, 2 and 3 (Sub-class 6.1 Gases)	300m <sup>3</sup>	100m <sup>3</sup>	0
Acute oral/dermal /inhalation toxicity Category 1 (Sub-class 6.1A)	0.5	0.2	0
Acute oral/dermal /inhalation toxicity Category 1 (6.1A) within 50m of a more sensitive zone	0.2	0.1	n/a
Acute oral/dermal /inhalation toxicity	6	2	0.05
Category 2 (Subclass 6.1B)			
Acute oral/dermal /inhalation toxicity Category 2 (6.1B) within 50m of a more sensitive zone	2	1	n/a

Acute oral/dermal /inhalation toxicity Category 3 (Sub-class 6.1C), germ cell mutagenicity Categories 1 and 2 (Sub-class 6.6), carcinogenicity Categories 1 and 2 (6.7), reproductive toxicity Categories 1 and 2 or effects on or via lactation (6.8) or specific target organ toxicity —single or repeat exposure Categories 1 and 2 or single exposure Category 3 narcotic effects (6.9)	20	6	0.3
Acute oral/dermal /inhalation toxicity Category 3 (6.1C), germ cell mutagenicity Categories 1 and 2 (Sub-class 6.6), carcinogenicity Categories 1 and 2 (6.7), reproductive toxicity Categories 1 and 2 or effects on or via lactation (6.8) or specific target organ toxicity — single or repeat exposure Categories 1 and 2 or single exposure Category 3 narcotic effects (6.9) within 50m of a more sensitive zone	6	2	n/a
<b>Corrosive Class 8 Maximum Quantity (measured in tonnes, unless stated)</b>			
Corrosive to metals Category 1, skin corrosion Category 1A, serious eye damage Category 1 (Sub-class 8.1, 8.2A and 8.3A)	6	2	0.05
Skin corrosion Category 1B and 1C (8.2B and 8.2C)	20	10	0.3
<b>Eco-toxic Class 9 maximum quantity (measured in tonnes, unless stated)</b>			
Hazardous to the aquatic environment (acute/chronic) Category 1 (Sub-class 9.1A)	0.5	0.5	0.5
Hazardous to the aquatic environment (acute/chronic) Category 1 (9.1A) < 30m of a watercourse	0.1	0.1	0.1
Hazardous to the aquatic environment (chronic) Category 2 (Sub-class 9.1B)	10	10	10
Hazardous to the aquatic environment (chronic) Category 2 (9.1B) < 30m of a watercourse	3	3	3
Hazardous to the aquatic environment (chronic) Category 3 (Sub-class 9.1C), hazardous to soil organisms (9.2) or hazardous to terrestrial invertebrates( 9.4)	30	30	30

Hazardous to the aquatic environment (chronic) Category 3 (9.1C), hazardous to soil organisms (9.2) or hazardous to terrestrial invertebrates( 9.4) < 30m of a watercourse	10	10	10
High Biological Oxygen Demand (BOD <sub>5</sub> ) (>10,000mg/l) > 30m of a watercourse	100	40	20
High Biological Oxygen Demand (BOD <sub>5</sub> ) (>10,000mg/l) < 30m of a watercourse	40	20	20

**Notes when using the above table:**

1. A hazardous substance shall have the classification given by the Environmental Protection Authority when approving the importation and manufacture of that substance under the Hazardous Substances and New Organisms Act 1996 in reference to Globally Harmonised System (GHS7).
2. Quantities are given in t (tonnes), except all permanent or compressed gases, which are measured in m<sup>3</sup> (cubic metres) at standard temperature and pressure (20°C and 101.3 kPa).
3. The table specifies the total quantities of hazardous substances for each hazard classification (aggregates). That is 0.5 tonnes of one Class 5.1 substance + 0.25 tonnes of another Class 5.1 substance = 0.75 tonnes of Class 5.1 This 0.75 tonnes is the amount to use to assess whether consent is required.
4. Many substances have more than one hazardous property. The activity status must be determined for each hazard classification and the most onerous activity status shall apply. For example, petrol is classified as a flammable liquid Category 1 (3.1A), carcinogenicity Category 2 (6.7B) and hazardous to the aquatic environment Category 2 (9.1B). The flammability determines the activity status in this case.
5. "n/a" means: not applicable; "all" means all categories in each hazard class.
6. "sensitive zone" means a zone listed in a column in the table to the right of the zone considered.

**Exemption for Emergency Services**

The following are exempt from the quantity limits specified in HS-S1:

(a) The use, storage, and disposal of hazardous substances at emergency service facilities operated by Fire and Emergency New Zealand, New Zealand Police, or emergency ambulance services; and

(b) The temporary storage and use of hazardous substances during emergency response operations conducted by the agencies listed in (a).

This exemption does not apply to general industrial or commercial activities, even if conducted on land owned or occupied by emergency service providers.