CHAPTER

19

HAZARDOUS SUBSTANCES AND CONTAMINATED LAND

Ngā Waahi Whakatūpato me Ngā Waahi Parapara

19 Hazardous Substances and Contaminated Land

19.1 **OBJECTIVES AND POLICI**ES

Objective HS1	*To prevent or mitigate adverse environmental effects and/or minimise risks to human health, property and/or the receiving environment associated with facilities and activities involving the manufacture, storage, use, transportation and/or disposal of hazardous substances.*
Policy 1	Hazardous facilities involving the manufacture, storage, use, disposal and transportation of hazardous substances are located so the risk to the wider **environment** is prevented or mitigated, especially in sensitive **environment**s and areas subject to risk from natural hazards.
Policy 2	Facilities involving the manufacture, storage, use, disposal or transportation of hazardous substances are designed, constructed and managed to prevent or mitigate adverse environmental effects and minimise risks to the **environment** and the community.
Policy 3	Hazardous facilities have emergency contingency plans or strategies capable of avoiding, remedying or mitigating adverse environmental effects upon failure of the facility, primary storage device or accidental spill or release during handling or transfer.
Policy 4	To provide for the manufacture, storage, use, disposal and transportation of hazardous substances in accordance with industry protocols and regulations established under the Hazardous Substances and New Organisms Act 1996.
Objective HS2	*Land affected by contaminants in soil is appropriately managed to minimise the risk to human health in accordance with the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES)*
Policy 1	To require soil testing at the time of subdivision and development of sites that have a history of landuse that could have resulted in contamination of the soil to confirm that the land is fit for the intended use.
Policy 2	To ensure that any subdivision and development on contaminated land is managed so that significant risk to human health is avoided, remedied or mitigated.
Policy 3	To require management measures for contaminated land that provide for remediation, containment, disposal of contaminated soil, or other suitable measures so the level of contamination is appropriately managed for its current or proposed use.
Policy 4	To ensure that exposure from the on-going use of land affected by soil contaminants is managed in a way that avoids, remedies or mitigates any adverse effects on human health.
Policy 5	To minimise risk to human health from contaminated or potentially contaminated sites by providing adequate information.

Advice Note 1: Bay of Plenty Regional Council also controls this activity through the Regional Water and

Land Plan which has a range of thresholds triggering consents.

Advice Note 2: If the land that is potentially or actually affected by contaminants is production land, the NES regulations do not apply to:

a. Soil sampling or soil disturbance (except on parts of production land used for residential purposes).
b. Subdivision or change of use (except where that would result in production land being used for different purpose e.g. residential use.

19.2 RULES FOR HAZARDOUS SUBSTANCES

19.2.1 **Exempted Activities**

19.2.1.1 The following activities shall be exempted from assessment under Rule 19.2.3 but shall comply with all other standards in this District Plan:

a. domestic storage and use of hazardous consumer products for domestic purposes;

b. retail outlets for the sale of hazardous substances for domestic use (e.g. supermarkets, hardware shops, pharmacies);

c. fuel in motor vehicles, boats and small engines;

d. the storage of up to 5,000 litres of fuel in a Rural Zone;

e. the retail sale and storage of up to 100,000 litres of petrol and up to 50,000 litres of diesel in underground storage tanks, provided it can be demonstrated that the following regulations are adhered to:
   i. Below Ground Stationary Container Systems for Petroleum – Design and Installation HSNOCOP 44, Environmental Protection Agency, June 2013, and
   ii. Below Ground Stationary Container Systems for Petroleum – Operation HSNOCOP 45 , Environmental Protection Agency, June 2013;

f. the retail sale of LPG, with a storage of up to six tonnes (single or multiple vessel storage) of LPG, provided it can be demonstrated that the "Australian Standard (AS 1596—2008) for LP Gas Storage and Handling —Siting of LP Gas Automotive Retail Outlets" is adhered to;

g. trade waste sewers, or waste treatment and disposal facilities (this exception does not apply to the storage of hazardous substances or waste associated with these facilities);

h. any facility that was existing on 1 January 2001 and which increases the storage or use of hazardous substances by not more than twenty per cent over the base figure, where the base figure is the average volume stored or used on the site between 1 January 2000 and 31 December 2000.

i. dust explosion;

j. gas or oil pipelines;

k. developments that are or may be hazardous but do not involve hazardous substances (e.g. radio masts, electrical sub-stations;

l. the treatment and disposal of hazardous waste at the Pulp and Paper Waste Treatment and Disposal Sites as provided for in Rule 20.2.7;

m. storage and transportation of liquid milk and milk products provided that any spillage is prevented from entering a watercourse or body or seeping into an underground water supply;

n. electrical transformers containing up to 1,000 litres of oil, excluding the use of polychlorinated biphenyls (PCBs);

o. the agrichemicultural use, storage, transportation [Hort NZ] and disposal of agrichemicals where these activities are carried out in accordance with NZS:8409: 2004 Code of Practice for the Management of Agrichemicals;

p. the storage, transportation and spreading of dairy factory wastewater, whey and/or other dairy factory by- products;

q. any temporary hazardous facility used in the management of a production forest where:
   i. hazardous substances are used, stored or handled, but not disposed of; and
   ii. the site is used for a period not exceeding one month.

r. any other temporary hazardous facility used in the management of a production forest where:
   i. hazardous substances are used, stored or handled, but not disposed of;
   ii. the site is used for a period exceeding one month, but no longer than 6 months in any 12 month period; or
   iii. the site was used as a temporary hazardous facility prior to 31 December 2002.

s. the temporary storage of up to 5,000 litres of diesel, and up to 500 litres of chainsaw fuels and hydraulic oils used and located in a production forest;

t. sealing of vehicle parking, loading, manoeuvring, access area, road carriage way and footpaths, provided that up to 10,000 litres of diesel can be temporarily stored if the tank is located and bunded to meet Rules 19.2.4 (Site Design) and is located a minimum distance of 30m from any other hazardous facility;

u. the storage, use and transportation of hazardous substances within the Edgecumbe Industrial Site (as shown on Planning Maps 128B and 129B), provided that these activities comply with the relevant regulations established under the Hazardous Substances and New Organisms Act 1996;

v. the storage and use of fertiliser within the Rural Foothills and Rural Plains Zones is a permitted activity when conducted in accordance with the:
   i. Fertiliser (Corrosive) Group Standard HSR002569;
   ii. Fertiliser (Oxidising) Group Standard HSR002570;
   iii. Fertiliser (Subsidiary Hazard) Group Standard HSR002571;
   iv. Fertiliser (Toxic) Group Standard HSR002572; and
   v. FertResearch's Code of Practice for Nutrient Management 2007.

w. the storage, handling and use of a hazardous substance within the light industrial zone provided that it is demonstrated that it is undertaken in accordance with the requirements of the Hazardous Substances and New Organisms Act 1996 (including the HSNP Fertiliser Group Standards), and subject to the activity complying with Rules 19.2.4 to 19.2.10;

19.2.2 Activity Status

Except as exempted under 19.2.1.1, a hazardous facility or hazardous sub-facility shall be:

a. a Permitted Activity if the effects ratio falls within the range specified as a Permitted Activity for the zone in Rule 19.2.3 Consents Status Matrix, and Rules 19.2.4 to 19.2.10 are complied with.

b. a Controlled Activity if the effects ratio falls within the range specified for the zone as a Controlled Activity in Rule 19.2.3 Consents Status Matrix and Rules 19.2.4 to 19.2.10 are complied with.

c. a Discretionary Activity if the effects ratio falls within the range specified for the zone as a Discretionary Activity in Rule 19.2.3 Consents Status Matrix. Rules 19.2.4 to 19.2.10 shall be used as a guide.

19.2.3 Effects Ratio Matrix

The activity status of a hazardous facility or hazardous sub-facility shall be determined by the effects ratio shown in Table 19:1 below subject to the levels in buffer zones in Table 19:2. The effects ratio is calculated by applying the Hazardous Facility Screening Procedure (HFSP), which identifies the threshold value, the proposed quantity and the type of risk the substances may have for the **environment**. The HFSP uses the toolbox on the website www.hazardoussubstances.govt.nz/hsno-calculator# or information may be obtained from the Council offices.

Zone/Area	**Permitted**	Controlled	Discretionary
Rural Plains	≤0.75	>0.75-1.5	>1.5
Rural Foothills	≤0.5	>0.5–1.0	>1.0
Rural Coastal	≤0.1	>0.1–0.2	>0.2
Rural Ōhiwa	≤0.1	>0.1–0.2	>0.2
Residential	≤0.1	>0.1–0.2	>0.2
Urban Living	≤0.1	>0.1–0.2	>0.2
Coastal Protection	<0.02	-	>0.02
Hospital	<0.1	>0.1–0.2	>0.2
Active Reserve Zone, and other public **reserves** in other zones	<0.1	>0.1-–0.2	>0.2
Business Centre	<0.1	>0.1–0.2	>0.2
Mixed Use	≤0.1	>0.1–0.2	>0.2
Commercial	<0.2	>0.2–0.4	>0.4
Large Format Retail	<0.2	>0.2–0.4	>0.4
Light Industrial	<0.5	>0.5–1.0	>1.0
Industrial	<1.0	>1.0–2.0	>2.0
Community and Cultural Zone	≤0.1	>0.1–0.2	>0.2
Education Zone	≤0.1	>0.1–0.2	≤0.2

Table 19:1 Consents Status Matrix

19.2.3.1 The following effects ratios shall be met within the defined buffer zones

Zone	Width of Buffer Zone	**Adjacent Zone/Land** Use	Effects Ratio
Light Industrial	10m	Business Centre, Commercial, Rural Coastal, or Rural 4, Hospitals, Active Reserve Zone and other **public reserves** in	0.2
Industrial	20m		

		other zones	
Business Centre	10m	Urban Living	0.5
Commercial, Light Industrial, Industrial	20m		
Other zones	Not applicable		

Table 19:2 Consents Status Matrix for Buffer Zones

19.2.4 Site Design

19.2.4.1 Any part of a hazardous facility or hazardous sub-facility site where the hazardous substances are used for their intended function shall be designed, constructed and managed in a manner that prevents;

a. any adverse effects of the use from occurring outside of the site;

b. the entry or discharge of the hazardous substances into the stormwater drainage system;

c. the entry or discharge of the hazardous substance into the sewerage system unless permitted by the sewerage utility operator; and

d. any chance of incompatible substances being exposed to each other.

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

a. the contamination of any land and/or water (including ground water and potable water supplies) in the event of a spill or other unintentional release of hazardous substances;

b. the entry or discharge of the hazardous substance into the stormwater drainage system in the event of a spill or other unintentional release; and

c. the entry or discharge of the hazardous substance into the sewerage system in the event of a spill or other unintentional release.

19.2.4.3 The hazardous facility or hazardous sub-facility site shall be designed, constructed and managed in a manner that any stormwater originating on or collected on the site that has become contaminated;

a. does not contaminate any land/and or water (including ground water and potable water supplies) by acting as a transport medium for hazardous substances unless permitted by a resource consent;

b. does not enter or discharge into the stormwater drainage system; and

c. does not enter or discharge into the sewerage system unless permitted by the sewerage utility operator.

19.2.4.4 Compliance with the Rules in 19.2.5 to 19.2.10 will satisfy the Rules in 19.2.4 (Site Design).

19.2.5 Spill Containment System

19.2.5.1 The parts of the hazardous facility or hazardous sub-facility described in the Rules in 19.2.4 above shall be serviced by a 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;

b. able to contain the maximum volume of the largest tank used, or where the largest tank is linked to

other tank(s), the sum of linked tanks, or where drums or other containers are used, able to contain half of the maximum volume of substances stored;

c. 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; and

d. 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 ground water and potable water supplies) unless permitted by a resource consent.

19.2.6 Stormwater Drainage

19.2.6.1 All stormwater grates on the site shall be clearly labelled "drains to the sea/river".

19.2.7 Washdown Areas

19.2.7.1 Any part of the hazardous facility or hazardous sub-facility site where vehicles, equipment or containers that are or may have become contaminated with hazardous substances are washed, shall be designed, constructed and managed to prevent the effluent from the washdown area;

a. entering or discharging into the stormwater drainage system; or

b. entering or discharging into the sewerage system unless permitted by the sewerage utility operator; or

c. discharging into or onto land/or water (including ground water and potable water supplies) unless permitted by a resource consent.

19.2.8 Underground Storage Tanks

19.2.8.1 Underground tanks for the storage of petroleum products shall be designed, constructed and managed to prevent leakage and spills.

19.2.8.2 Compliance with the following codes shall be one method of complying with this rule:

a. Below Ground Stationary Container Systems for Petroleum – Design and Installation HSNOCOP44, Environmental Protection Agency, June 2013, and

b. Below Ground Stationary Container System for Petroleum – Operation HSNOCOP45, Environmental Protection Agency, June 2013

19.2.9 Signage

19.2.9.1 Any hazardous facility or hazardous sub-facility shall be signposted to indicate the nature of the substances stored, used or otherwise handled in accordance with the Code of Practice for;

a. signage for Premises Storing Hazardous Substances and Dangerous Goods HSNO 2-1; and

b. labelling of Hazardous substances HSNO CoP 10-1.

19.2.10 Waste Management

19.2.10.1 Any process waste or waste containing hazardous substances will be managed to prevent;

a. the waste entering or discharging into the stormwater drainage system;

b. the waste entering or discharging into the sewerage system unless permitted by the sewerage utility operator; and

c. the waste entering or discharging into or onto land and/or water (including ground water and potable water supplies).

19.2.10.2 The storage of any process waste or waste containing hazardous substances shall at all times comply with the provisions of Rule 19.2.4 (Site Design).

19.2.10.3 The storage of any waste containing hazardous substances shall be undertaken in a manner that prevents;

a. exposure to ignition sources;

b. corrosion or other alteration of the containers used for the storage of the waste; and

c. unintentional release of the waste.

19.2.10.4 Any hazardous facility or hazardous sub-facility generating waste containing hazardous substances shall dispose of these wastes only to authorised sites or facilities.

19.3 RULES FOR R**ADIOACTIVE** SUBSTANCES

19.3.1 **Permitted Activities**

19.3.1.1 An activity which will generate 300 gigabecquerels or less (radioactive substances) shall be a Permitted Activity.

19.3.2 **Discretionary Activities**

19.3.2.1 An activity which will generate more than 300 gigabecquerels shall be a Discretionary Activity.

Advice Note: The National Radiation Laboratory issues licences for the purpose of controlling the location of radioactive materials and associated activities.

19.4 **RULES FOR RADIOFREQUENCY RADIATION**

19.4.1 **Permitted Activities**

19.4.1.1 Radiofrequency fields associated with a telecommunication or other facility that complies with Rules 19.4.2.2, 19.4.2.3 and 19.4.2.4 below shall be a Permitted Activity.

19.4.2 Non-**Complying Activities**

19.4.2.1 Radiofrequency fields associated with a telecommunication or other facility that cannot comply with Rules 19.4.2.2, 19.4.2.3 and 19.4.2.4 shall be a Non-complying Activity.

19.4.2.2 The planning and operation of a telecommunication or other facility that generates radiofrequency fields shall be undertaken in accordance with NZS 2772: Part 1:1999 Radiofrequency Fields Part 1 – Maximum Exposure Levels – 3kHz to 300GHz.

19.4.2.3 The network operator shall ensure that the Council receives, before the telecommunication facility becomes operational:

a. a written or electronic notice of where the facility is or where it is proposed to be; and

b. a report that:

i. is prepared in accordance with AS/NZS 2772.2: 2011 Radiofrequency Fields: Part 2: Principles and Methods of Measurement and computation 300 kHz to 100 GHz; and
ii. takes account of exposures arising from other telecommunication facilities in the vicinity of the facility; and
iii. predicts whether the radiofrequency field levels at places in the vicinity of the facility that are reasonably accessible to the general public will comply with NZS 2772: Part 1:1999 Radiofrequency Fields Part 1 – Maximum Exposure Levels – 3 kHz to 300 GHz.

19.4.2.4 If the prediction referred to in (iii) above is that the radiofrequency field levels will reach or exceed 25% of the maximum level authorised by NZS 2772: Part 1:1999 Radiofrequency Fields Part 1 – Maximum Exposure Levels – 3 kHz to 300 GHz for exposure of the general public, the network operator shall ensure that the Council receives, within 3 months of the telecommunication facility becoming operational, a report that:

a. is prepared in accordance with AS/NZS 2772.2: 2011 Radiofrequency Fields: Part 2: Principles and Methods of Measurement and computation 300 kHz to 100 GHz; and

b. provides evidence that the actual radiofrequency field levels at places in the vicinity of the facility that are reasonably accessible to the general public comply with NZS 2772: Part 1:1999 Radiofrequency Fields Part 1 – Maximum Exposure Levels – 3 kHz to 300 GHz.

19.5 RULES FOR MANAGING CONTAMINATED SITES

19.5.1.1 The following activities require an assessment to be undertaken in accordance with the National Environmental Standard for Assessing and Managing Contaminated Soils to Protect Human Health 2011 (NES) to determine if the activity is located on a site that is currently, or has previously been, used for an activity that may potentially contaminate the soil. The Ministry for Environment website contains a list of activities that are considered to contaminate soil, the Hazardous Activities and Industries List (HAIL) and is available from Bay of Plenty Regional Council. Activities subject to assessment include;

a. removal or replacement of underground fuel storage systems;

b. soil sampling;

c. soil disturbance; and

d. subdivision or change of land use.

19.5.1.2 The assessment will determine whether the National Environmental Standards for Assessing and Managing Contaminated Soils to Protect Human Health applies, and if a resource consent is required for an activity, it will be considered as either a Controlled, Restricted Discretionary or Discretionary Activity under the NES.

Note: Rural production activities may not be subject to the NES. Refer to regulation 5(8) of the NES for further guidance.

19.6 ASSESSMENT CRITERIA **FOR CONTROLLED ACTIVITIES**

19.6.1 Hazardous substances

19.6.1.1 Council shall exercise its control over;

a. the proposed operation and site layout having regard to potential or actual effects on the surrounding natural, human and physical **environment**;

b. transport of hazardous substances within the site;

c. separation distances from neighbouring activities, and the type of **environment**/number of people potentially at risk from the proposed facility;

d. potential hazards and exposure pathways arising from the proposed facility;

e. potential cumulative hazards presented in conjunction with neighbouring facilities;

f. proposed fire safety and fire water management;

g. proposed spill contingency and emergency planning;

h. proposed monitoring and maintenance schedules; and

i. compliance with;

   i. Below ground stationary container systems for petroleum – design and installation: HSNOCOP 44, Environmental Protection Agency, June 2013;
   ii. Below ground stationary container systems for petroleum – Operation HSNOCOP 44, Environmental Protection Agency, June 2013;
   iii. "Australian Standard (AS1596–2008) for LP Gas Storage and Handling" Siting of LP Gas Automotive Retail Outlets;
   iv. "Warning Signs for Premises Storing Hazardous Substances"— New Zealand Chemical Industry Council (1988);
   v. NZS 8409:2004 Agrichemical Users—Code of Practice.

j. the need to plant and/or fence a riparian margin or to provide public access to avoid, remedy or mitigate the adverse effects of an activity on a waterway; and

k. the extent to which the proposed operation and part of a hazardous facility complies with the relevant regulations established under Hazardous Substances and New Organisms Act 1996.

19.7 ASSESSMENT CRITERIA FOR **RESTRICTED DISCRETIONARY ACTIVITIES**

See Section 4.6

19.8 ASSESSMENT CRITERIA—**DISCRETIONARY ACTIVITIES / NON-COMPLYING ACTIVITIES**

See Section 4.6

19.9 OTHER METHODS

19.9.1.1 Council will:

a. work with other organisations to have available up-to-date records (including maps) of sites where hazardous substances are used or stored and of known contaminated land;

b. continue to include information on known contaminated sites through Land Information Memoranda and Property Information Memoranda and on property files;

c. work with the Regional Council to maintain up-to-date records on the Regional Council's register of contaminated land;

d. provide information about contaminated sites and their management; and

e. continue to support a collaborative approach and to advocate for funding for the appropriate management of contaminated sites.