HAZARDOUS SUBSTANCES

Many activities, including residential activities, can involve the use of hazardous substances. Certain substances in small quantities may be particularly hazardous to the environment and to human health, while seemingly harmless substances such as milk, can, if discharged into waterways in sufficient quantities, cause significant environmental damage. The degree of hazard associated with a particular substance or substances is influenced by many factors, ranging from the particular characteristics of the substance (that is, whether it is toxic, explosive or flammable etc.), the volumes and the method of storage and use etc, or the site lay-out and environmental sensitivity of the location.

The Plan sets the levels at which an activity which uses hazardous or environmentally damaging substances can operate without requiring a resource consent. The method used to assess this level or threshold is based on a screening procedure called the Hazardous Facility Screening Procedure, the details of which are set out in Part I of the Plan.

This section of the Plan also deals with the siting of facilities for the disposal of hazardous waste. Controls will be placed on the siting and management of hazardous waste facilities in association with the Wellington Regional Council (WRC).

Statutory Context

The management of the risk posed by hazardous facilities and hazardous substances is subject to a number of pieces of legislation involving different agencies. This includes the Hazardous Substances and New Organisms Act 1997 which establishes an Environmental Risk Management Authority (ERMA) to assess, among other things, hazardous substances and regulate their use. The controls under this legislation are intended to be complemented by existing legislative measures, such as land use controls under the RMA.

Historically, land use planning has been a function of territorial local authorities, but under the provisions of Section 30 of the RMA regional councils may also control the use of land for the use, storage, transport and disposal of hazardous substances. However the Regional Policy Statement for the Wellington Region specifies that the primary responsibility for writing rules for the control of the use of land relating to the control of hazardous substances will rest with the Territorial Authorities. Accordingly, this part of the Plan is primarily concerned with the location of hazardous facilities and their potential off-site effects.

Issues

1. The storage, use, and transport of hazardous and environmentally damaging substances are normal parts of many industrial activities. However, if these activities, and the facilities in which they take place, are not managed properly, the accidental or unintentional release of these substances can result in significant environmental damage, as well as adverse effects on human health and property. The potential for environmental damage from spillages is of particular concern where hazardous facilities are located next to waterways, above aquifers or close to environmentally sensitive areas such as wetlands.
2. The safety and health of the people working in hazardous facilities and in the wider community may also be at risk if these facilities are not adequately controlled, especially if they are located in the vicinity of residential areas. While the safety and health of workers is subject to regulations under the Health and Safety in Employment Act 1992 which controls conditions on the site, any off-site effects that may impact on the wider community are dealt with under the RMA.

3. There is a need for a greater public awareness of environmental issues and a realisation that many of the methods used for the disposal of hazardous waste in the past have been inadequate. Many facilities are either inappropriately sited or unable to cope with the increased levels of waste being deposited. Accordingly, the Wellington Region has few suitable facilities available for the disposal of hazardous waste and the Region lacks a dedicated hazardous waste treatment facility. The WRC recognises this as a regional waste management issue, and one which territorial local authorities such as PCC should have regard to in the formulation and implementation of policy.

4. Contaminated sites are sites where hazardous substances occur at concentrations which are likely to pose, an immediate or long-term hazard to human health or the environment. Sites of this nature may have been used in the past, or are being used, for industrial processing, storage of hazardous substances, or dumping of hazardous wastes. Sites of this nature may continue to discharge pollutants into neighbouring land, water and the air. This has implications for the WRC, the PCC, the landowner and the neighbouring owners/occupiers of land. In an effort to co-ordinate information and action on the identification and remedial works necessary to reduce the adverse environmental effects of these sites, the WRC is in the process of preparing a regional inventory of contaminated sites in the Wellington region. Once comprehensive information is available, and if sites in the City are identified as being contaminated, the Council may instigate a Plan Change if appropriate, or initiate some other action to address the issue.

In summary, the issues related to the use of land for hazardous facilities are:

- The potential for damage to the environment, including ecosystems, caused by the accidental or unintentional release of hazardous and environmentally damaging substances.

- The potential for damage to human health and property caused by the accidental or unintentional release of hazardous substances.

- The safe and efficient disposal and treatment of hazardous wastes.

- The need to identify and locate any contaminated sites within the City. There will not be any policies in the plan until comprehensive information is available.
C15.1 OBJECTIVE

TO PREVENT OR MITIGATE ANY ADVERSE ENVIRONMENTAL EFFECTS OF ACCIDENTAL DISCHARGES TO THE ENVIRONMENT CAUSED BY THE USE AND STORAGE OF HAZARDOUS SUBSTANCES AND ENVIRONMENTALLY DAMAGING SUBSTANCES.

Explanation

The Wellington Regional Council is responsible for the control of deliberate discharges (of hazardous substances). The WRC also controls other forms of discharges) to land, water and air through Regional Plans. That is, discharges which are part of the operation of a particular industry or farming activity etc. will be controlled through discharge permits. The accidental discharge of hazardous substances into the environment cannot be controlled through this consent process. Accordingly, this objective seeks to manage hazardous facilities through land-use controls in order to reduce the likelihood of accidental discharges into the environment.

Facilities or activities involving hazardous and environmentally damaging substances may cause adverse environmental effects when the substances are not adequately controlled and escape into the environment. Such releases, whether accidental or brought about by poor management practices, may cause environmental contamination. To prevent or mitigate potential adverse effects, these facilities and activities need to be managed correctly and appropriately located.

C15.1.1 Policy

To control the location of facilities which use and store hazardous substances and environmentally damaging substances, and which pose a risk to the environment and/or to human health.

Explanation

Under the RMA, Porirua City Council has the power through the District Plan to control and manage land use activities. Hazardous facilities which use and store substances which are hazardous to the environment if an accidental discharge occurs, will be assessed in terms of the risk posed by the location of the facility to sensitive environmental areas, and to residential areas.

Method of Implementation

District Plan rules require that each facility using or storing hazardous and environmentally damaging substances will be subject to a screening procedure referred to in this Plan as the Hazardous Facilities Screening Procedure (HFSP). This procedure will determine whether the risk associated with the use and storage of particular substances is such that a resource consent is required. The HFSP is presented in full in Part I.

The Council will have particular regard to the following site-specific matters when assessing consent applications for hazardous facilities:

a) the location of any special natural features to be protected, or other environmentally sensitive areas;

b) any risk arising from natural hazards such as earthquakes or floods;
c) the availability of and access to suitable transport routes;
d) the density of surrounding development;
e) the structures, procedures and contingency plans that may be required to prevent or minimise any adverse effects beyond the boundary of the site, and in particular, the accidental discharge of any hazardous substance into water, whether directly and/or through a drainage system.

Exemptions from the Hazardous Facility Screening Procedure and exceptions to the definition of Hazardous Facility recognise that there are certain circumstances where it is inappropriate to submit some activities to the HSFP either due to insignificant quantities, or where there are some recognised Codes of Practice or Standards which provide management of some of the environmental risks associated with the facility.

Various other statutes governing the handling, storage, transportation and the hazardous substances also assist in ensuring high quality management of a facility resulting in reduced production, cost savings, and other benefits to the operator.

Compliance with rules and regulations requires that resource users are aware of these provisions and fully understand their implications. Relevant guideline documents to disseminate such information and explanations will be an important component of implementing policies and enforcing rules.

Principal Reasons

When developing the hazardous facility threshold standards for assessing whether a hazardous facility requires a resource consent a number of matters were considered. These same matters will also form the guide upon which the Council will have regard to in assessing resource consent applications for hazardous facilities.

The overall zoning strategy.

There are only five, very distinct zones where it is recognised that owners of commercial enterprises by the very nature of the activities they are engaged in would wish to locate. For instance, heavy industrial activities such as smelting or galvanising plants etc. would wish to locate in the Industrial Zone on large sites and where the sites are serviced to cater for heavy industry. Consequently the threshold trigger levels for hazardous facilities in the Industrial Zone are less restrictive than in the Rural, City Centre and Suburban Zones.

The location of any special natural features to be protected, or other environmentally sensitive areas.

The Adjustment Factors in the HFSP take into account the environmental sensitivity of an area. The hazardous facility threshold standards have not been based on particular areas of environmental sensitivity but on zones. This is due to the fact that the threshold levels in the Residential and Rural Zones have been set at a level to ensure that most activities using significant quantities of hazardous substances would require a resource consent. At this point a full assessment of the environmental sensitivity of an area can be fully assessed.
The possibility of exposure to natural hazards such as earthquakes.

Site specific assessments may be required where a particular site is known to be affected by a natural hazard. Section C12 "Natural Hazards" also deals with natural hazards throughout the City.

The availability and access to suitable transportation routes.

Although the HFSP is not designed to address the transportation of hazardous and environmentally damaging substances, the general absence of suitable transport routes in an area may increase the risk associated with a hazardous facility and therefore the degree of control necessary to reduce or mitigate the risk posed by the transportation of such hazardous substances.

The density of development.

Separation distances between properties have the potential to affect risk, i.e. the greater the distance between properties within and between zones, the lesser the risk from the fire/explosion hazard, and to a lesser degree, from environmental and human health effects.

The integration of the HFSP with other provisions of the Plan.

Hazardous facilities will be assessed not only according to the potential effects on the environment and human health, but also with respect to other planning requirements, such as traffic, noise, building requirements, servicing etc.

An important aspect of land use management for hazardous facilities is the avoidance of adverse effects, which are often caused by accidental spillages and other accidents. Where such accidents have occurred, effects can be remedied or mitigated by fast and effective emergency response measures. The Council will therefore promote the adoption of on-site management plans and emergency contingency procedures to facilitate efficient and well coordinated responses to emergencies.

C15.2 Policy

To promote increased awareness and knowledge among developers and operators on the environmental risks associated with hazardous and environmentally damaging substances.

Explanation

Many accidental discharges of hazardous substances into the environment are based on a lack of knowledge and information about the nature and type of hazardous substances being used. Promoting increased awareness of hazardous substances and the environmental risks associated with their use, storage, disposal and transportation is an important issue in reducing the number of accidental discharges into the environment.

Method of Implementation

The Council is required to administer many statutes governing the use, storage, disposal, and transportation of hazardous substances. Other agencies are also required to administer specific Acts governing the use etc. of hazardous substances. The Council is required to work closely with other Authorities concerning, the construction and design of buildings (Building Act 1991), the
packing, marking, handling, storage and use of dangerous goods (Dangerous Goods Act 1974), the handling of explosives (Explosives Act 1957), the control of land uses (Resource Management Act 1991), and the transport of hazardous substances over land (Transport Act 1962).

Through enforcing the provisions of these Acts, the various agencies concerned have an important role to play in providing information on the methods available to reduce the likelihood of accidental discharges. **Information pamphlets and advice to industry users** are the key to ensuring the effectiveness of this policy.

**Cleaner production methods** for local industry will also continue to be promoted in the interests of cleaner, safer and more efficient environmental management practices.

**Principal Reasons**

Awareness and knowledge is the first step towards changing attitudes and behaviour. In many cases, spillages or other accidents causing adverse effects can be traced back to a lack of knowledge of proper operating procedures. By providing hazardous facility operators with information about improvements and cost savings, especially those associated with Cleaner Production, the risk associated with hazardous facilities can be reduced and adverse effects avoided.

**C15.1.3 Policy**

**To ensure the environmentally safe disposal and treatment of hazardous substances at suitable facilities.**

**Explanation**

Hazardous substances which are no longer required by industry users or other users need to be disposed of, or rendered harmless, in a safe and efficient manner.

**Method of Implementation**

District Plan standards have been set at levels which will ensure that facilities for the disposal and treatment of hazardous substances will require a resource consent. Appropriate conditions can be imposed at that stage to minimise or mitigate against adverse environmental effects.

All such facilities would require consents from the **WRC for discharges to land, air and/or water**. Accordingly, joint hearings may be required in the determination of the various resource consents.

**Principal Reasons**

By their very nature, hazardous substance disposal and treatment facilities have the potential if not correctly managed or located to cause significant adverse environmental effects. Disposal facilities such as landfills need to be constructed and managed in a way which prevents the discharge of pollutants into the water, land or air.
n the interests of improving environmental quality, greater emphasis is now being placed on the treatment of hazardous substances to render the substances less hazardous prior to their disposal. Co-disposal of hazardous wastes with other forms of waste in landfills is a less favoured option, particularly as the two landfills in the Region are likely to accept less hazardous liquid than in the past. The Council will encourage alternative means of treatment and disposal in consultation with the WRC such as treatment of hazardous waste in a dedicated facility, incineration, and purpose built co-disposal landfills.

Waste minimisation is an important part of the whole process of hazardous waste treatment and disposal. The Council will work with the WRC, government agencies, other local authorities and industry user groups to help implement cleaner production methods into workplaces in the City.

C15.1.4 Policy

To control activities where they could be adversely affected by contaminated sites.

Explanation

If a site is confirmed as contaminated with hazardous substances, some restrictions on activities on that site (or adjacent sites) may be necessary, in order to manage the risks posed by the site. The Council may promote site management options such as remediation, as a necessary prerequisite to undertaking some activities.

Method of Implementation

Information on site contamination will be included on Land Information Memoranda and Project Information Memoranda, as this information becomes available. The Council will have regard to this policy when assessing activities, such as new subdivisions, which require resource consents. For activities which do not require resource consents, and existing activities on contaminated sites, the Council will work with the WRC to inform landowners and occupiers of the risks of the site, and appropriate measures to manage those risks. If it becomes apparent, as more information becomes available, that rules to control activities on confirmed contaminated sites are required, this will be initiated through a plan change.

Principal Reasons

Contaminated sites can have adverse effects on human health and the environment. Land uses on confirmed contaminated sites therefore need to be appropriate to the degree of contamination on the site.
C15.2 ENVIRONMENTAL OUTCOMES ANTICIPATED

The following environmental outcomes are anticipated:

C15.2.1 A reduction in the number of accidents and the extent of adverse environmental effects due to the release of substances stored and used at hazardous facilities.

C15.2.2 Adoption of better operational practices on sites and within facilities using and/or storing hazardous and environmentally damaging substances.

C15.2.3 An increase in the level of awareness and knowledge of hazardous and environmentally damaging substances among users of such substances.

C15.2.4 A reduction in the amount of waste generated through actively promoting a cleaner production methods for local industry.

C15.2.5 To work with the Regional Council, government agencies and industry user groups to ensure that the disposal and treatment of hazardous wastes is done so in a manner which is safe and efficient, and which is part of an integrated region wide strategy relating to the provision of hazardous waste disposal facilities which are more environmentally secure.