

Module 4

How the HSNO Act and the RMA work together in controlling hazardous substances

What

- how controls on hazardous substances under the HSNO Act and the RMA are meant to work together
- examples of linking controls under the HSNO Act and the RMA:
 - land use planning controls for hazardous substances
 - using HSNO exposure limits in rules and consent conditions
- where hazardous waste fits in

Why

- to understand how hazardous substances controls under the HSNO Act and the RMA complement each other
- examples of how controls on hazardous substances under the RMA can meet HSNO requirements
- to understand how hazardous waste fits into the picture

How

- presentation
- exercise
- group discussion



It is the commonest mistake to consider that the limit of our power of perception is also the limit of all there is to perceive

C W Leadbeater

Module 4

How the HSNO Act and the RMA work together in controlling hazardous substances

4.1 COMPARISON OF CONTROLS OF THE HSNO ACT AND THE RMA WITH RESPECT TO HAZARDOUS SUBSTANCES

Purpose of the HSNO Act and the RMA with respect to hazardous substances

Both the HSNO Act and the RMA are designed to protect human health and the environment from the effects of hazardous substances, and to work in conjunction with each other.

The HSNO Act controls hazardous substances from the moment they are made or arrive in New Zealand to their end use, export or disposal. These controls are designed to manage the intrinsic risks of hazardous substances across their life cycle, irrespective of their location.

The RMA on the other hand, controls the potential and actual release of any contaminant into the environment, together with any actual or potential adverse effects on the receiving environment. The Act also controls the use of land for the storage, use, disposal, or transportation of hazardous substances.

The RMA recognises that environmental effects differ, depending on where an activity occurs, aspirations of local communities, as well as the sensitivity of the localised environment. The RMA therefore takes an enabling approach at a site-specific level, by considering any activity within the context of its proposed locality and potential environmental effects.

In other words, where the focus of the RMA is on managing the adverse effects of hazardous substances on the environment on a *site-specific basis*, the focus of the HSNO legislation and regulations is on the intrinsic nature of the substance itself, regardless of location. This means that controls under the HSNO Act have a national effect, while controls under the RMA depend on the area in which the site is located.

Because both laws cover hazardous substances, the controls set under each law are not mutually exclusive and may overlap. Section 142 of the HSNO Act clearly sets out the relative hierarchy and powers of the two pieces of legislation. A copy of section 142 of the HSNO Act is shown in Module 2.

HSNO controls set bottom line

Based on Section 142 of the HSNO Act, the Act *stipulates that minimum controls on hazardous substances have to be met under any*

RMA controls may be stricter

Prescriptive approach of HSNO Act versus enabling approach of RMA

minimum controls on hazardous substances have to be met under any other legislation, including the RMA (except where there is an existing resource consent).

Even though the HSNO Act sets the bottom line for controls on hazardous substances, *local authorities may set stricter standards* if this is indicated on a *site-specific basis*.

The HSNO Act sets performance based controls on hazardous substances. Therefore, whilst the objective of these controls is “non-negotiable”, the method of meeting them is flexible to acknowledge the fact that a range of technologies can be used to achieve the same outcome.

The HSNO Act’s approach recognises that the intrinsic properties of hazardous substances do not change between locations, and that they have to be managed according to the same standards throughout New Zealand.

This is in contrast to the RMA, where controls can be varied locally if the resulting environmental effects are deemed not significant. Therefore, it might be acceptable to store a greater quantity of hazardous substances in a particular location if it can be demonstrated that suitable environmental mitigation measures reduce environmental effects and risks to an acceptable level on a site-specific basis.

Overall, whilst it may seem as if the HSNO Act curtails the enabling properties of the RMA, it is noted that similarly binding standards can be created under the RMA, in the form of National Environmental Standards or Regulations.

Further, the enabling abilities of the RMA are still very wide outside of the very specific controls for hazardous substances specified by the HSNO Act.

Comparison of controls

A range of examples of how controls under the two Acts are meant to work together is set out in Table 4.1. These examples demonstrate the “bottom-line” controls that the Authority can set on hazardous substances under the HSNO Act, and how these can be augmented or added to by controls under the RMA.

A similar comparison of how HSNO and RMA controls interact is shown on Figure 4.1.



Notes

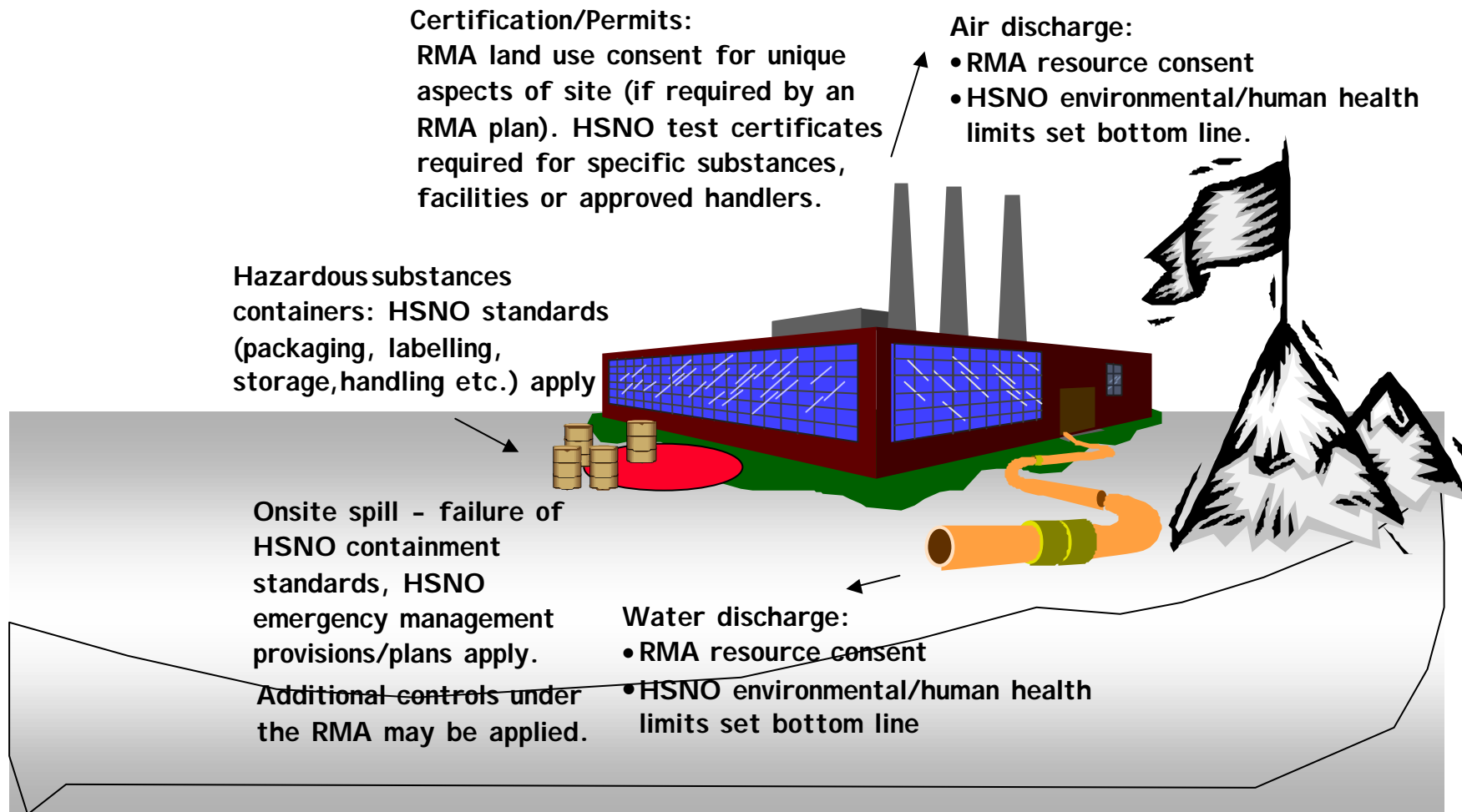
Lined writing area for notes.

Table 4.1 How controls for hazardous substances under the HSNO Act and the RMA work together

| HSNO ACT | RMA |
|---|--|
| Sets minimum performance requirements for hazardous substances, irrespective of their location. | HSNO minimum performance requirements need to be adhered to under RMA. These requirements need to be reflected in policy statements, plans, rules and resource consents. However, stricter controls can be set under the RMA. |
| HSNO controls dictate site layout and design (e.g. –certain separation distances are required to be kept between some substances). | Neighbouring land uses or environmental sensitivity may affect site layout or design. For example, if there is a school next door, hazardous substances may need to be kept at a greater distance from the site boundary. Conversely, if another hazardous facility is located next door, cumulative effects and risks presented by the two facilities in combination may need to be considered. |
| HSNO packaging and emergency management controls apply anywhere (e.g. a package containing hazardous substances will need to be packaged to withstand a drop from a certain height, or secondary containment is required). | Local authorities may require additional containment/protection for hazardous substances (for example, a roof to prevent stormwater ingress, diversion drains, oil/water separators, stormwater treatment devices, or a fire water catchment). |
| Controls on labelling/identification will be specified for different types and levels of hazard presented by the substance, irrespective of location. | Additional signage may be required (i.e., with a school next door, signs may need to be specially targeted at the children so they understand not to go on to the site). |
| National limits (Environmental and Tolerable Exposure Limits) will be set on the exposure of the environment and humans to specific hazardous substances via a range of end points (for example, human exposure via the skin or inhalation, or aquatic toxicity). | HSNO exposure limits will need to be met except for existing resource consents, but stricter exposure limits may be applied under the RMA if there is a sensitive receiving environment nearby, or if there are concerns about cumulative discharges. |
| Controls on agrichemicals include meeting applicable exposure limits outside the application area, record keeping on spray activities, the standard of equipment and qualifications of persons handling chemicals. | Additional requirements include training/qualification requirements, preparation of spray plans and notification of potentially affected parties. |
| If there are no hazardous substances on a site, HSNO controls do not apply. | If a site holds substances that are not controlled by the HSNO Act (for example, dairy shed effluent) specific requirements can be set under the RMA, on the basis of the definition of a ‘contaminant’. |

Figure 4.1

Summary of interactions between controls under the HSNO Act and the RMA



4.2 MATCHING RMA CONTROLS FOR HAZARDOUS SUBSTANCES WITH HSNO REQUIREMENTS

Overview

Based on the amendment of the RMA by the HSNO Act, controls on hazardous substances under the RMA must be based on the HSNO definition of a hazardous substance, and may not be less stringent than HSNO performance-based controls.

Controls that can be placed on hazardous substances under the RMA (as outlined in Table 4.1) refer to the following:

- controls on use, storage, transport and disposal of hazardous substances
- controls on hazardous substances in relation to discharges to the environment.

Regional councils and territorial authorities throughout New Zealand use different approaches in terms of the controls applied to hazardous substances. As a result, it is not possible to describe all of these in detail.

However, some specific controls that are commonly used, and how these relate to the HSNO Act are discussed in greater detail below. These include:

- controls for the use, storage, transport and disposal of hazardous substances
- the application of HSNO environmental and human exposure limits in discharge permits.

More detail about how these methods and controls are integrated into planning documentation and resource consents is provided in Modules 5 and 6.



Notes

**Methods for
determining the land
use consent status of
hazardous facilities**

The methodologies used for the control of the land use of hazardous substances under the RMA are well developed. These include the Hazardous Facility Screening Procedure (the HFSP), Classification of Hazardous Substances (CHS) tables, and a simpler threshold system with three classes of hazardous substances: Low, Medium and High (LHM).

These methods are used to screen hazardous facilities in order to determine whether they need a resource consent and a more detailed assessment of environmental effects and risks.

Public guidance material is available on the HFSP and its integration into district planning documentation, together with a calculation package to carry out HFSP calculations. Guidance is also available on carrying out Assessments of Environmental Effects of hazardous facilities once it has been verified that a resource consent is required.

Such an assessment takes into account the nature of the hazardous facility in question, the types and quantities of hazardous materials proposed for use or storage on site, associated effects and risks, as well as the sensitivity of the surrounding environment.



***How to find out
more***

- Land use planning guide for hazardous facilities: a resource for local authorities and hazardous facility operators (Ministry for the Environment, 2002).
- Assessment guide for hazardous facilities: a resource for local authorities and hazardous facility operators (Ministry for the Environment, 2002).
- Calculation package for the HFSP (available as a CD from the Ministry for the Environment, or from the Ministry's website – www.mfe.govt.nz)
- Guidance notes on the Quality Planning website (www.qualityplanning.org.nz)



Notes

*The Hazardous Facility
Screening Procedure*

The purpose of the HFSP is to determine whether a particular proposal for a hazardous facility requires a resource consent. The method is designed to assess, on a preliminary basis, the potential effects of hazardous substances proposed to be used or stored on a site taking into account:

- the type and quantities of all hazardous substances in question
- the type and location of the proposed activity in relation to land use zoning
- the nature of proposed storage facilities
- local environmental conditions.

The assessment is carried out for three major environmental effect types:

- Fire/Explosion
- Human Health
- Environment.

The HFSP is used to assess the cumulative potential off-site effects presented by hazardous substances on a site in terms of the above three effect groups. The method is used to calculate an index to determine the need for a resource consent in different land use zones of a district. The method has been developed scientifically on the basis of critical hazardous substance quantities that are not likely to generate significant off-site environmental effects in an industrial setting.

The HSFP is effects-based and meets the requirements of the RMA in this respect. It also enables the cumulative assessment of off-site effects of several substances held on the same site.

The methodology for the HFSP is standard and ensures a relative consistency between different districts, with the ability to modify indices locally to account for site-specific circumstances.

The HFSP is based on the definition of hazardous substances and hazard classification system developed under the HSNO Act. This means uptake of the method into a district plan will automatically ensure it meets the requirements of the HSNO Act.



Notes

*Classification of
Hazardous Substance
tables*

CHS tables are based on the definition and classification of repealed hazardous substance legislation (even though these tables are easily upgradable to meet the requirements of the HSNO legislation). The method uses hazardous substance classifications and associated hazardous substance quantity thresholds to determine whether a resource consent is required.

The method is simpler than the HFSP in that it does not require any calculations, and enables the straight reading of tables to see whether a resource consent is required. The main difference from the HFSP is that it is not effects-based, and that it does not allow the assessment of cumulative effects/risks of hazardous substances held on the same site or the consideration of environmental effects.

The thresholds used in CHS tables appear to vary between different districts, depending on the objectives of the district council in question. In most cases, threshold quantities are low and similar to those threshold quantities used for emergency management under the HSNO Act.

In some cases, low thresholds require most small-scale hazardous facilities to have a resource consent. In this manner, a district council may establish a registration system for hazardous substance facilities to replace the licensing system historically operated under the Dangerous Goods Act.

*Low/Medium/High
Threshold System*

Few local authorities employ a qualitative assessment system for hazardous facilities, based on three classes of hazardous substances; low, medium and high. Each of these classes is supported by a qualitative definition that is linked to the consent status of a hazardous facility.

The system is does not seem to have been made compliant with the HSNO Act yet. It is also not linked to the quantity of hazardous substances or the potential environmental effects associated with these.



Notes

4.2.2 Controls on hazardous substances in discharges to the environment

Overview

Controls on hazardous substances in discharges to the environment include, but are not limited to:

- rules for controlling potential adverse effects of hazardous substances, including:
 - stipulating objectives or limits that have to be met in discharges to the environment, or in receiving environments
 - minimum performance standards (for example, relating to stormwater and spill control, waste management etc)
- conditions on resource consents.

HSNO Exposure Limits

The HSNO Act places controls on hazardous substances throughout their entire lifecycle, including biological controls limiting the exposure of humans and the environment to hazardous substances in order to prevent damaging effects.

The HSNO Act does this by specifying acceptable concentrations of a hazardous substance in the environment, through the setting of exposure limits.

Exposure limits will either be set when controls are placed on a new imported substance, or after existing substances have been transferred from the old legislation to the new. HSNO exposure limits will be set for hazardous substances only, and will not apply to other “contaminants” as defined under the RMA (i.e. nutrients, sediments, heat, etc.).

HSNO exposure limits are of particular relevance to the RMA, as they constitute “bottom lines” that have to be met under the RMA. More background on the nature of HSNO exposure limits is provided below.



Notes

*Environmental Exposure
Limits under the HSNO
Act*

An **Environmental exposure limit (EEL)** is the maximum concentration of an ecotoxic substance (or ecotoxic component of a substance) in an environmental medium that will present a low risk of adverse environmental effects to organisms in non-target areas. It establishes the maximum concentration of a substance legally allowable in a particular (non-target) environmental medium (e.g. soil or sediment or water), including deposition of a substance onto surfaces such as in spray drift deposition.

EELs may be set for one or more environmental media for any particular ecotoxic substance. These relate to possible exposure routes through which organisms may be exposed to the substance.

Only one EEL may apply to any particular environmental medium at any given time or in any given circumstance. However, different EELs may be set for marine and fresh surface waters, and similarly, for the corresponding sediments.

EELs set a nationally consistent environmental bottom line that must not be exceeded during the life of a hazardous substance. They do not consider regional variation or site-specificity. All discharges, even discharges from landfills and wastewater treatment facilities, must comply with the EELs set under the HSNO Act.

Examples for EELs developed for the Clobber* 25 WP (used in Exercise 3.2) are as follows:

- EEL_{marine water} = 0.2 µg diflubenzuron /litre
- EEL_{fresh water} = 0.37 µg diflubenzuron /litre.

(Difluorobenzuron is the key active ingredient in Clobber* 25 WP).

Further detail on the approval for Clobber* 25 WP is provided in Appendix A.



Notes

*Tolerable Exposure Limits
(TELS)*

A **Tolerable Exposure Limit (TEL)** is the level below which a toxic substance, or component of a toxic substance, in an environmental medium (air, water, or soil) is unlikely to cause an adverse effect in a human. A TEL therefore represents the maximum allowable concentration of a substance legally allowable in a particular environmental medium, to protect humans from any adverse effects.

TELS are from basic toxicological data following a specific risk evaluation process to ensure that the derivation of the level depends on the accuracy and relevance of the data available. TELs are derived from the PDE (Potential Daily Exposure), which in turn is based on the ADE (Acceptable Daily Exposure) or the RfD (Reference Dose)¹.

Examples for TELs developed for the Clobber* 25 WP (used in Exercise 3.2) are as follows:

- TEL_{inhalation} = 0.003 µg diflubenzuron /m³ air (based on child 12 hours moderate activity).



Notes

¹ These concepts are described in further detail in ERMA New Zealand (2001): User Guide to the HSNO Control Regulations (ER-UG-05-1 11/01)

How HSNO exposure limits relate to environmental standards and guidelines used under the RMA

The RMA enables the promulgation of National Environmental Standards, including standards on the quality of the receiving environments of land, air and water. To date, no such standard has been promulgated. The new provisions of the Resource Management Amendment Act 2003 have helped to facilitate the implementation of national instruments. The relevant sections of the Amendment Act (18-23) commenced on 20 May 2003. The Ministry for the Environment is currently going through the process of producing national standards.

Historically however, in setting controls on discharges to the environment under the RMA (through rules or resource consent conditions), reference is often made to non-statutory guidelines that have been developed through consultative processes and constitute agreed environmental objectives.

The ANZECC water quality guidelines are one example of environmental guidelines that are commonly referred to. The linkage between these guidelines and HSNO minimum performance standards is further discussed below.

How do the ANZECC water quality guidelines (2000) relate to the exposure limits?

The Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000) water quality guidelines are based on a site-specific approach. They specify guidelines or “triggers” for a range of environmental indicators above which a management response is recommended. Based on these trigger levels and local conditions and community aspirations, site-specific environmental objectives are developed against which performance is measured.

The water quality indicators/guidelines cover different environmental values, including:

- aquatic ecosystems
- primary industries
- recreation and aesthetics
- drinking water
- industrial water
- cultural and spiritual values.

A wide range of indicators is used to describe the quality of the above environmental values. Among these, “toxicants” are used to describe chemical contamination due to hazardous substances.



Notes

In the context of these toxicants, the HSNO exposure limits constitute nationally consistent environmental standards that have to be met under the RMA. Therefore, HSNO exposure limits override the water quality guidelines, except where:

- the water quality guideline does not refer to a toxicant but to another environmental indicator
- the guideline or objective set under the water quality guidelines is more stringent than the HSNO minimum performance standard.

A different management approach will also be required in circumstances where environmental background levels exceed HSNO minimum performance standards.

Despite the divergence of the two approaches, it is expected that HSNO exposure limits will not deviate much from the trigger levels specified for toxicants in the ANZECC water quality guidelines. This is because the Authority, in approving and setting controls on a hazardous substance, considers relevant national and international data.

The ANZECC guidelines form part of the data the Authority refers to in developing exposure limits for hazardous substances. An example of this is the environmental exposure limit for 1080 in aquatic ecosystems, which has been based on the ANZECC guideline trigger level that provides an 80% level of protection of aquatic species. This limit gives plenty of scope to set more stringent levels under the RMA, using the site-specific approach outlined by the water quality guidelines.



How to find out more

- Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Councils of Australia and New Zealand, 2000.
- User guide to HSNO Thresholds and Classifications. ERMA New Zealand, 2001. (ER-UG-03-1)
- Summary user guide to HSNO Thresholds and Classifications. ERMA New Zealand, 2001. (ER-UG-04-1)
- User guide to the HSNO control regulations. ERMA New Zealand, 2001. (ER-UG-05-1 11/01)

4.3 HAZARDOUS WASTE: WHERE DOES IT FIT IN?

How the HSNO Act and the RMA deal with hazardous waste

The HSNO Act places controls on the disposal of approved hazardous substances. Generally, these substances contain chemical components at known concentrations, e.g. manufactured solutions such as copper chrome arsenate.

Occasionally, these substances need to be disposed of – for example, because the material has been spilled or is superfluous to requirements. In these instances, the substance-specific disposal controls under the HSNO Act apply.

In addition, Section 140(1)(p) of the HSNO Act provides for regulations to be developed to enable the Authority to place controls on hazardous by-products (i.e. waste) from the manufacture (but not from the use) of a hazardous substance.

However, hazardous waste in New Zealand usually consists of mixtures of different hazardous materials. More often than not, hazardous waste comprises chemical components at unknown concentrations, percentages and environmental availability. Because of this, it is difficult to use substance-specific disposal controls applied under the HSNO Act.

Control on hazardous waste under the RMA is partially achieved through conditions attached to resource consents for hazardous substance and waste related facilities – for example landfills and sewage treatment plants. Territorial authorities also have scope for some control under the Local Government Act, and the creation of by-laws.

Nonetheless, it is generally acknowledged that the currently available regulatory framework is insufficient to properly control hazardous waste. A compounding problem is that hazardous waste often shifts ownership and locations and is therefore difficult to track in terms of final disposal.

In light of these issues, the Authority and the Ministry for the Environment have agreed, for the meantime, that the Ministry will be responsible for providing guidance on managing mixed hazardous waste. To this end, the Hazardous Waste Programme has been developed. The Ministry for the Environment has also developed a Waste Strategy that outlines specific targets for hazardous waste.

The Ministry for the Environment Hazardous Waste Management Programme

Key aspects of Programme

The Ministry for the Environment's Hazardous Waste Management Programme was set up in 1997 in response to the fact that there is no comprehensive legislative framework to manage hazardous waste across its life cycle.

The purpose of the programme is to provide information, education, and eventually, regulation on hazardous waste in New Zealand.

Key aspects of the Programme include:

- a draft definition of hazardous waste
- the New Zealand Waste List
- proposals for record keeping and reporting
- information on hazardous waste
- landfill acceptance criteria for hazardous waste
- guidance on best practice
- testing proposed tools and controls.

The Waste Minimisation Strategy

The Ministry for the Environment has recently released the New Zealand Waste Strategy². This strategy promulgates several targets for hazardous waste:

- by December 2005, an integrated and comprehensive national hazardous waste management policy will be in place that covers reduction, transport, treatment and disposal of hazardous wastes to effectively manage risks to people and the environment
- by December 2004, hazardous wastes will be appropriately treated before disposal at licensed facilities, and current recovery and recycling rates will be established for a list of priority hazardous wastes
- recovery and recycling rates for priority hazardous waste will increase 20 percent by December 2012.

² Ministry for the Environment, 2002: The New Zealand Waste Strategy. Towards zero waste and a sustainable New Zealand. Ministry for the Environment, Wellington.

**New Zealand definition
of hazardous waste**

The New Zealand definition of hazardous waste links in closely with the HSNO Act and associated regulations. The draft definition is shown in Table 4.2.

The definition consists of two major parts:

- a “waste code” that describes the reasons why a material may become a waste (W-Code)
- thresholds for hazardous characteristics based on the HSNO minimum degree of hazard regulations and on other legislation for radio-active and infectious waste

Based on this definition, any waste that meets one of the W-Codes and exceeds a HSNO minimum degree of hazard becomes a hazardous waste.

**The New Zealand
Waste List**

The definition of hazardous waste outlined above is very generic, and a hazardous waste is difficult to identify without testing. As a result, a tool is needed to assist with the ready and consistent identification and naming of hazardous waste.

The New Zealand Waste List is a list of non-hazardous and hazardous waste. Waste marked by an asterisk is deemed to meet the New Zealand definition of a hazardous waste. The list includes most hazardous wastes that meet the criteria of the definition, based on the available knowledge of the raw materials, sources and processes involved in generating particular hazardous waste.

The list is organised by industrial activities and processes. An extract of the New Zealand Waste List is shown in Table 4.3.



Notes

Table 4.2 Draft New Zealand definition of hazardous waste

Hazardous waste is defined as any substance, material or object that is included in the following **Waste Categories (W-Code)**:

| Waste Categories (W-Code) |
|---|
| 1. Production and consumption residues not otherwise specified below |
| 2. Off-specification products |
| 3. Products whose date for appropriate use has expired |
| 4. Materials spilled, lost or having undergone other mishap, including any materials, equipment, etc., contaminated as a result of the mishap |
| 5. Materials contaminated or soiled as a result of planned actions (e.g. residues from cleaning operations, packing materials, containers) |
| 6. Unusable parts (e.g. reject batteries, exhausted catalysts) |
| 7. Substances that no longer perform satisfactorily (e.g. contaminated acids, contaminated solvents, exhausted tempering salts) |
| 8. Residues of industrial processes (e.g. slags, still bottoms, spent filters) |
| 9. Residues from pollution abatement processes (e.g. scrubber sludges, baghouse dusts, spent filters) |
| 10. Machining/finishing residues (e.g. lathe turnings, mill scales) |
| 11. Residues from raw materials extraction and processing (e.g. mining residues, oil field slops) |
| 12. Adulterated materials (e.g. oils contaminated with PCBs) |
| 13. Any materials, substances or products whose use has been banned by law |
| 14. Products for which the holder has no further use (e.g. agricultural, household, office, commercial and shop discards) |
| 15. Contaminated materials, substances or products resulting from remedial action with respect to land |

and that:

- Exceeds the *minimum degrees of hazard* for hazardous substances specified by *Hazardous Substances Minimum Degrees of Hazard Regulations 2000* under the *Hazardous Substances and New Organism Act 1996* (HSNO), or
- Meets the definition for *infectious waste* included in the *Land Transport Rule: Dangerous Goods 1999* and *NZ Standard 5433: 1999 – Transport of Dangerous Goods on Land*³, or
- Meets the definition for radioactive material included in the *Radiation Protection Act 1965* and *Regulations 1982*.⁴

³ Substances known, or reasonably expected, to contain pathogens, including bacteria, viruses, rickettsia, parasites, fungi or recombinant micro-organisms (hybrid or mutant) that are known, or reasonably expected, to cause infectious disease in humans or animals that are exposed to them.

⁴ Radioactive material means any article containing a radioactive substance giving it a specific radioactivity exceeding 100 kilobecquerels per kilogram and a total radioactivity exceeding 3 kilobecquerels.

Table 4.3 New Zealand Waste List: extract

New Zealand Waste List (L-Code)

Note: Wastes marked with an asterisk (*) are potentially hazardous and may be subject to management controls. For further information contact Jonathan Coakley (jonathan.coakley@mfe.govt.nz).

| | |
|-----------|---|
| 01 | Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals |
| 01 01 | <i>Wastes from mineral excavation</i> |
| 01 01 01 | wastes from mineral metalliferous excavation |
| 01 01 02 | wastes from mineral non-metalliferous excavation |
| 01 03 | <i>Wastes from physical and chemical processing of metalliferous minerals</i> |
| 01 03 04* | acid-generating tailings from processing of sulphide ore |
| 01 03 05* | other tailings containing hazardous substances |
| 01 03 06 | tailings other than those mentioned in 01 03 04 and 01 03 05 |
| 01 03 07* | other wastes containing hazardous substances from physical and chemical processing of metalliferous minerals |
| 01 03 08 | dusty and powdery wastes other than those mentioned in 01 03 07 |
| 01 03 09 | red mud from alumina production other than the wastes mentioned in 01 03 07 |
| 01 03 99 | wastes not otherwise specified |
| 01 04 | <i>Wastes from physical and chemical processing of non-metalliferous minerals</i> |
| 01 04 07* | wastes containing hazardous substances from physical and chemical processing of non-metalliferous minerals |
| 01 04 08 | waste gravel and crushed rocks other than those mentioned in 01 04 07 |
| 01 04 09 | waste sand and clays |
| 01 04 10 | dusty and powdery wastes other than those mentioned in 01 04 07 |
| 01 04 11 | wastes from potash and rock-salt processing other than those mentioned in 01 04 07 |
| 01 04 12 | tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11 |
| 01 04 13 | wastes from stone cutting and sawing other than those mentioned in 01 04 07 |
| 01 04 99 | wastes not otherwise specified |
| 01 05 | <i>Drilling muds and other drilling wastes</i> |
| 01 05 04 | fresh-water drilling muds and wastes |
| 01 05 05* | oil-containing drilling muds and wastes |
| 01 05 06* | drilling muds and other drilling wastes containing hazardous substances |
| 01 05 07 | barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06 |
| 01 05 08 | chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06 |
| 01 05 99 | wastes not otherwise specified |
| 02 | Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing |
| 02 01 | <i>Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing</i> |
| 02 01 01 | sludges from washing and cleaning |
| 02 01 02 | animal-tissue waste |
| 02 01 03 | plant-tissue waste |
| 02 01 04 | waste plastics (except packaging) |
| 02 01 06 | animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site |
| 02 01 07 | wastes from forestry |
| 02 01 08* | agrochemical waste containing hazardous substances |

