

**Chapter 4:  
Land Use Planning for  
Hazardous Substances  
Under the RMA**

## 4 Land Use Planning for Hazardous Substances under the RMA

---

### Key Points

- Land use planning methods for hazardous facilities under the RMA include the Hazardous Facilities Screening Procedure (HFSP) and a series of other methods.
- Irrespective of the adopted land use planning method, specific minimum controls need to be applied to all activities involving hazardous substances. These include minimum performance requirements under the RMA and HSNO, matters to be addressed in AEEs and assessment criteria for resource consent applications.
- Specific matters such as transboundary issues, transport and disposal of hazardous substances, and relevant management systems are also addressed.

### 4.1 Risks presented by hazardous substances

Hazardous substances and their use, storage and handling present potential sources of risk. Under normal operating conditions and environmental circumstances, hazardous substances may be perfectly safe.

However, accidents such as structural failures of containment or process facilities, operational malfunction or human error can cause the release, or loss of control, of hazardous substances and consequent events such as:

- fire resulting in heat exposure
- explosion resulting in overpressure and/or missile projection
- hazardous substance release resulting in acute toxic/ecotoxic exposure
- corrosive spill resulting in irritative exposure.

It should be noted that a risk assessment of a hazardous facility for land use safety planning purposes generally focuses on accidental events involving hazardous substances (MfE, 1999c). Such an assessment does not normally address any long-term effects or risks caused by routine and long-term discharges of environmental contaminants as authorised under the RMA through discharge consents.

### 4.2 Objectives of land use planning methods and the HFSP

The primary objective of land use planning controls for hazardous substances is to assist with managing the risks of hazardous substance and to avoid, remedy or mitigate adverse environmental effects by:

- identifying any new or modified activities involving the use, storage, transport and disposal of hazardous substances with the potential to exert significant environmental effects or risks
- determining whether the adverse effects and risks presented by these activities are significant and therefore require a resource consent and a more detailed assessment, or whether they may proceed as permitted activities

- applying minimum performance standards to all activities involving hazardous substances irrespective of their resource consent status
- where required, imposing appropriate resource consent conditions to ensure that any adverse environmental effects and risks of activities involving hazardous substances are adequately managed
- providing for the long-term monitoring of activities involving hazardous substances.

## 4.3 Planning methods

### 4.3.1 The HFSP

The purpose of the Hazardous Facility Screening Procedure (HFSP) is to determine whether a proposed activity involving the use, handling and/or storage of hazardous substances requires a land use consent under the RMA or not. It is also used to determine the specific consent status of such an activity (for example, whether it is a permitted, controlled or a discretionary activity). However, it cannot be used to determine the outcome of a resource consent application without a more detailed assessment of environmental effects and risks.

The HFSP is a preliminary screening method. It is used to determine whether the potential cumulative environmental effects presented by hazardous substances on a proposed site are significant. It does so by taking into account substance properties and quantities, the type and nature of the proposed storage facilities and the location of the proposed site in relation to sensitive environments.

The HFSP evaluates hazardous substances generically in terms of three different kinds of Effect Types:

- Fire/Explosion
- Human Health
- Environment.

Acceptable quantity limits for permitted activities involving hazardous substances are specified in the district plan. If the cumulative effects of hazardous substances exceed these limits for any of the three Effect Types, a resource consent is required.

As a tool, the HFSP can also assist with locating hazardous facilities in areas with compatible land uses. For example, large facilities are best placed in areas designated for industrial use and with the necessary infrastructure in place to address such effects. It must be noted, however, that the HFSP itself does not specify any controls or performance standards. This must be done through rules in a district (or regional) plan.

The procedure is explained in detail in Section 5.

### 4.3.2 Other methods

There are a few other methods for determining the consent status of hazardous facilities in district plans. They include the following:

- hazardous substance threshold lists
- hazardous activities lists specifying the consent status of selected activities
- the Dow/Mond Index.

Hazardous substance threshold lists show either individual substances or classes/categories of substances, together with maximum permissible quantities. Often, two thresholds are provided for controlled and discretionary activities involving these substances. The thresholds vary, depending on the zoning.

Hazardous activities lists generally include specific industries or commercial activities, sometimes in combination with maximum quantities of hazardous substances. Some activities are specified as requiring a particular type of land use consent in all zones of a district, while other activities have a tiered consent status depending on scale of operation and/or location.

The Dow Index involves the calculation of a possible maximum product loss. While the index can theoretically be used for establishing levels of risk to the environment in general, it has been initially designed for the evaluation of fire, explosion and reactivity potential of industrial process equipment and its content. Only one territorial authority currently uses the index, for part of the district (the HFSP is used for the remainder of the district).

All these methods have been used previously in district schemes. However, substance threshold and activity lists are generally not considered to be effects-based and therefore not consistent with the principles of the RMA. Also, being lists, they are by nature limited to the types of substances and activities listed and fall short for those substance/activities that are not listed. Further, lists can not account for cumulative effects, as each substance/activity is assessed on an individual basis.

The Dow Index is used for historical reasons in an area with specific types of industries. It has limitations for smaller scale activities, toxic or ecotoxic substances and the consideration of off-site effects. The site-specific application of this method means it can not be translated easily to other districts.

If other methods than the HFSP are being used for the establishment of the consent status of a hazardous facility under the RMA, the following matters need to be addressed:

- The method should provide for the technically defensible assessment of an activity and the actual and potential environmental effects resulting from the use, storage and/or handling of hazardous substances.
- Hazardous substances tend to be used throughout a district. Therefore, any method must be able to cover all conceivable activities/facilities and land use zones. For example, activity lists are generally limited to industrial and commercial land use zones, but should also include activities in other land use zones (such as farming and horticultural enterprises, home enterprises or suburban dry cleaners).
- Most currently existing lists tend to be incomplete as only a certain number of substances or activities can be practically included. However, in excess of 100,000 hazardous substances are used commercially worldwide. Toxic and ecotoxic substances need to be specifically included.

- If generic hazardous substance categories are used (e.g. 'flammable substances' or 'chemical manufacturing'), they need to be well defined and consistent with HSNO legislation.
- Activities (e.g. use, handling, storage, transport, retail, disposal etc.) need to be clearly defined.
- Consistency is required in defining the consent status of an activity involving hazardous substances. For example, if a consent is required for the storage of a specific quantity of a given hazardous substance it must also be required when the same quantity of the substance is used in a manufacturing or other process.

## 4.4 Minimum performance requirements for hazardous substances

### 4.4.1 Minimum performance requirements under the RMA

Under the land use provisions of respective district plans in New Zealand, hazardous facilities are normally required to comply with a series of minimum performance requirements. These apply irrespective of the method used or the consent status of the hazardous facility, that is, they apply also to permitted activities.

Minimum performance requirements for hazardous facilities may address general, zone-related and hazardous facilities specific requirements. General and zone-specific requirements vary from district to district. In contrast, minimum performance requirements for hazardous facilities tend to be more consistent and to apply in areas where minimum requirements stipulated by other legislation (in particular life cycle controls under HSNO) are not deemed sufficient to address site-specific issues or community concerns.

### 4.4.2 Minimum performance requirements under HSNO

Property performance requirements under HSNO apply to all substances under the hazard classification system, that is, all substances with one or more of the hazardous properties above defined minimum hazard threshold levels.

Property performance requirements specify, as the name indicates, a required performance, not prescriptive controls. They are designed to reduce the likelihood of an unintended event caused by the hazardous properties of a substance and to control any adverse effects of the event. While HSNO specifies a required performance, it does not prescribe the means by which performance can be achieved. It therefore leaves considerable flexibility in terms of how people go about meeting performance.

HSNO specifically aims to control for the following events and effects:

- **Explosiveness** (capability of sudden expansion due to a release of internal energy):
  - limiting the chance of an accidental explosion
  - limiting the effects of an unintended explosion (or of an intended explosion outside a defined impact area)
  - managing areas where substances with explosive properties are manufactured, loaded/unloaded, stored or used.

- **Flammability** (capability to be ignited in the presence of oxygen and to sustain combustion):
  - limiting the chance of accidental ignition of substances with flammable properties
  - limiting the effects of unintended ignition and of intended combustion outside defined area
  - managing areas where substances with flammable properties are manufactured, loaded/unloaded, stored or used.
- **Oxidising capacity** (capability to contribute to fire or explosion due to release of oxygen):
  - limiting the chance of unintended combustion or explosion by either accidental contact with incompatible materials or occurring as a result of exposure to energy sources (including by desensitisation or temperature control)
  - limiting the effects of unintended combustion, explosion or spills
  - managing areas where substances with oxidising capacity are stored or used.
- **Corrosiveness** (capability to chemically break down metals or human tissue on contact):
  - avoiding adverse effects on human tissue, by implementing measures such as protective clothing/equipment or purpose-specific equipment
  - limiting exposure of people by setting Tolerable Exposure Limits (for the purpose of property performance, corrosiveness controls are considered to be a sub-set of the toxicity requirements).
- **Toxicity** (capability for adverse health effect, short or long term, following exposure):
  - limiting access to highly toxic substances; implementing measures to avoid adverse health effects such as protective clothing/equipment or purpose-specific equipment
  - limiting exposure of people by setting of so-called ‘Acceptable Daily Intakes’ and ‘Tolerable Exposure Limits’.
- **Ecotoxicity** (capability for adverse toxic effects on non-human organisms or ecosystems):
  - limiting access to highly ecotoxic substances
  - avoiding adverse effects on organisms and ecosystems by implementing measures such as purpose-specific equipment
  - limiting exposure by setting ‘Maximum Application Rates’ for target areas and ‘Environmental Exposure Limits’ for non-target areas
  - keeping ‘Records of Use’ of ecotoxic substances as a biocide.

HSNO “pan-life cycle” (or systems) performance requirements are applicable in the following areas:

- **packaging and containers** (including strength, durability and containment requirements of anything from small retail packages to tank-wagons or explosive magazines)
- **identification** (or ‘hazard communication’ requirements, covering labels, signs and workplace material safety data documentation)
- **tracking and competency** (for highly hazardous substances and defined persons dealing with certain hazardous substances, including test certifiers)
- **emergency preparedness** (covering minimum emergency response information as well as more specific information for locations with substances above specified quantities; specifying the type of information necessary and the performance of systems and equipment for a hazardous substance emergency response)

- **disposal** (requiring the reduction of all defined hazardous properties of waste substances to defined levels beyond the point of disposal).

These system requirements apply at all or some defined stages of the life cycle of a hazardous substance, regardless of location or land use (with the exception, to some degree, of the disposal requirements).

The HSNO Regulations should be consulted for specific details on HSNO performance requirements.

#### **4.4.3 Minimum performance requirements under other Acts**

Both the Building Act 1991 and the Health and Safety in Employment Act 1992 contain some basic performance based controls for hazardous substance management. The Building Act provides for Clause F3 of the New Zealand Building Code as a means of compliance with the requirements of the Act for buildings containing hazardous substances. This will be reviewed once HSNO is fully in force, as it currently only applies to some classes of hazardous substances.

The HSE Act requires a hazard identification process for workplaces as well as incident notification procedures that are relevant to the performance of workplaces that are also hazardous facilities.

### **4.5 Management systems**

#### **4.5.1 Site management systems**

Increasingly stringent requirements for hazardous substances under the RMA and other legislation result in growing legal liabilities for operators of hazardous facilities. As a result, companies need to deal with these liabilities in a systematic and well-organised fashion. Management systems are key tools to demonstrate legal compliance and underpin a company's ability to demonstrate due diligence and mount a defence in a legal court.

For some facilities, site management systems may be required under the conditions attached to a resource consent. However, in many cases management system are a voluntary measure companies implement for worker health and safety, internal quality assurance and due diligence purposes.

Site management systems can take many shapes and forms, although there are some that are particularly suitable for incorporating hazardous substances-related provisions:

- **ISO 14001** – this international standard sets the blue print for Environmental Management Systems (EMS). It was finalised in 1996 and superseded an earlier British Standard. While ISO 14001 covers the fundamentals of an EMS, a series of other related standards are in preparation that relate to environmental management and environmental performance. Under ISO 14001, organisations commit themselves to identify and manage significant environmental issues related to their activities and to comply with the law and other requirements.

- **ISO 9000** – this international standard focuses on ensuring product and/or service quality according to specified customer requirements. Even though not primarily targeting environmental quality, many aspects of an ISO 9000 quality management system have beneficial effects on environmental performance and can be directly linked with an ISO 14001 EMS.
- **Responsible Care** – this management system was introduced in 1984 by the Canadian Chemical Producers' Association and is administered by the New Zealand Chemical Industry Council in New Zealand (NZCIC). The programme is designed to help industry manage health, safety and environmental protection issues through improvement in performance.
- **Fire Service Approved Evacuation Schemes** – pursuant to the Fire Safety and Evacuation of Buildings Regulations 1992. Such schemes relate to the site management of hazardous substances, as control measures for storage and use must be specified and integrated into the overall scheme.

#### 4.5.2 Risk management systems

Risk management is an integral part of good site management practice. Standards Australia and New Zealand have recently developed a risk management standard (AS/NZS 4360:1995). This standard addresses risk management in a systems context and ties in with the general approach taken under ISO 14001.

## 4.6 Preparation and assessment of resource consent applications for hazardous facilities under the RMA

### 4.6.1 Preparation of an Assessment of Environmental Effects (AEE)

Once it has been determined that a hazardous facility requires a resource consent, an Assessment of Environmental Effects (AEE) pursuant to Section 88(4)(b), (5) and (6) and the Fourth Schedule of the RMA has to be undertaken. A companion guide to this document, the *Assessment Guide for Hazardous Facilities* (MfE, 1999c) provides detailed information on the preparation and assessment of resource consent applications for hazardous facilities. Also, the MfE has published good practice guides on how to prepare and audit AEEs (MfE, 1999a, b).

An AEE should include the following:

- 1 A full description of the nature and scale of the proposed facility and associated operations, and a preliminary outline of the scope of the AEE to be undertaken.
- 2 Documentation of alternatives (sites/locations, substances, quantities, processes/equipment, site management etc.).
- 3 Description of the environment potentially affected by the proposal, including pathways and receptors).
- 4 Preliminary hazard and risk analysis (a screening process such as the HFSP could be used).
- 5 Detailed hazard and risk analysis of installations, operations and processes involving the use, handling, storage, transport and disposal of hazardous substances which is appropriate to the type and scale of the proposed facility. A qualitative or, in some cases,



a quantitative risk assessment may be required, depending on the scale or potential effects of the proposed development. This assessment should place emphasis on the following issues:

- a hazardous substance inventory and description of proposed/existing installations, operations and processes on the site
- the biophysical characteristics of the site and surrounding area and relevant infrastructure on and off-site (e.g. drainage, roads)
- the location of the facility in relation to people-oriented activities (e.g. child care facilities, schools, rest homes, hospitals), sensitive environments (e.g. natural waters, ecosystems) and infrastructures (neighbouring roads, buildings etc.)
- identification of potential hazards, failure modes and exposure pathways
- assessment of the probability and potential consequences of an accident leading to a release of a hazardous substance or loss of control, including, as applicable, cumulative and/or synergistic effects
- acceptability of the assessed risks, including cumulative risks
- proposed risk control and environmental mitigation measures, with emphasis on sensitive activities and environments, including, as applicable, fire safety and site management systems, engineered safety measures such as containment devices, spill contingency and emergency plans, monitoring and maintenance schedules as well as training programmes.

- 6 Management of wastes containing hazardous substances.
- 7 The transport of hazardous substances, where this forms a significant part of the operations. Hazardous substances transport poses risks that are similar to those of use and storage in terms of uncontrolled releases, but may require different methods of control. For an assessment of the transport of hazardous substances, it should be demonstrated that the proposal will generate no significant adverse effects on the safety of the operation of the adjoining road network and that vehicles transporting hazardous substances will utilise appropriate roads as a regular means of transport.
- 8 Outline of proposed site management systems and plans, as necessary.
- 9 An emergency management plan detailing emergency preparation and response measures.
- 10 Development of a consultation strategy to facilitate communication with the regulatory authority and stakeholders/affected parties.
- 11 Final review of the AEE to ensure that it is in accordance with the Fourth Schedule of the RMA.

The detail of any hazard identification and risk assessment of a hazardous facility for a land use consent application must reflect the nature and scale of the proposal. This includes relevant aspects of installations and operations utilising hazardous substances, as well as the hazard levels of the substances and their quantities. The scope of an AEE to support the application can therefore vary significantly. For a home occupation or small commercial operation, 5–10 pages of information on the hazardous substance aspects of the proposal may be sufficient. For large-scale industrial facilities, hundreds of pages may be necessary.

## **4.6.2 Criteria for the evaluation of resource consent applications**

Regulatory authorities generally assess a consent application and the accompanying AEE with regard to the following matters:

- 1 Consistency with the objectives, policies and rules outlined in the district plan, or any regional policy statements or plans, as applicable, for the relevant location.
- 2 Justification for the proposed site, including consideration of alternatives where off-site effects are considered to be significant.
- 3 The appropriateness of the assessment of environmental effects and risks carried out for the proposed facility, and the accuracy and completeness of the presented information.
- 4 The scale and significance of environmental effects and risks associated with the hazardous substances proposed to be used, stored, transported or disposed of by the proposed facility, including the potential for cumulative risks.
- 5 The appropriateness of the proposed risk control and mitigation measures.
- 6 Adequacy and comprehensiveness of the employed consultation process, the nature of submissions received and/or written confirmations by relevant stakeholders.
- 7 The adequacy of proposed site management systems and plans, particularly in relation to hazardous substances.
- 8 Proposed measures for the management and disposal of hazardous wastes.
- 9 Scale and significance of off-site transport of hazardous substances, and proposed measures for control.
- 10 The scope and suitability of the emergency management proposals.

## **4.6.3 Recommended resource consent conditions**

Resource consent conditions for hazardous facilities can be as varied as the facilities themselves. The following recommendations for conditions cover various, but not necessarily all, aspects for which conditions may need to be specified. Some minimum conditions are likely to be specified in district plans as minimum performance standards for permitted hazardous facilities. These generally apply regardless of the conditions stated in resource consents.

### **4.6.3.1 Site design, construction and management**

Site design conditions should ensure that hazardous facilities are designed, constructed and managed in a manner that avoids or minimises the risk of adverse effects on the environment from the activities carried out on the site. This should include provisions for the intentional use of hazardous substances and for the unintentional reaction or release of hazardous substances. Adverse effects on the environment include adverse health effects or injury to people, damage to other living organisms and ecosystems, and damage to off-site property.

Resource consent conditions on site design, construction and management may cover:

- appropriate spill containment systems for liquid hazardous substances
- separation requirements between facilities and the property boundary
- the identification of the storm water drainage system
- emergency response installations and equipment.

Conditions may also require compliance with development plans submitted by the developer, or specify additional design requirements.

#### **4.6.3.2 Hazard communication**

Hazard communication conditions should be used to ensure that hazardous facilities are adequately sign-posted to indicate the nature of the substances stored, used or otherwise handled. Generally, compliance with the HSNO identification and hazard communication performance requirements can be expected to be sufficient, although substances not covered by the HSNO legislation may need to be considered.

It is unlikely that additional requirements for resource management purposes are necessary in regard to labels and information on packaging and containers, or documentation such as Material Safety Data Sheets.

#### **4.6.3.3 Hazardous substances management plan**

A hazardous substances management plan may be required through a consent condition if appropriate to the scale of the operation and its hazards. Such a plan should include:

- inventories of hazardous substances, facilities and locations
- emergency response procedures specific to particular hazardous events identified in the risk assessment process
- notification procedures and details (internally and externally), including for incident and accident reporting
- site and process plans
- monitoring and maintenance schedules
- training and review procedures.

The hazardous substances management plan could be part of a wider site management plan, health and safety plan or an environmental management system.

#### **4.6.3.4 Management of hazardous waste**

Waste management conditions should ensure that process waste or waste containing hazardous substances are stored, managed and disposed of in a manner that minimises the risk of adverse effects on the environment. Conditions may require the selection of waste management contractors who must have the appropriate facilities and processes to manage the wastes in compliance with all relevant statutes. If hazardous wastes are a significant part of the operation, a hazardous waste management plan may also be required.

#### **4.6.3.5 Transport**

Conditions may be required to ensure that on-site transport of hazardous substances is carried out in a manner that minimises the risk of adverse effects on the environment. Matters specified may include specific areas for manoeuvring and loading/unloading of hazardous substance transports or restrictions of other vehicle movements in parts of a site where hazardous substances are handled or stored.

Off-site transport is generally difficult to control as part of a land use consent for a hazardous facility. In individual cases, dedicated transport routes or times could be specified, although they are difficult to monitor. Where a council identifies specific transport routes, it needs to ensure that these are compatible with district/regional plans of other affected authorities.

#### **4.6.3.6 Emergency preparation and management**

During an emergency, it is unlikely that there will be enough time to decide who is in charge, identify sources of help, train people to respond adequately and decide on a plan of action to follow. For this reason, it is important that an emergency plan, tailored to the specific requirements of the facility, is prepared and adhered to.

#### **4.6.3.7 Monitoring**

Hazardous facilities require monitoring, which ranges from assessing general environmental performance indicators to compliance with district plan rules and resource consent conditions. Monitoring may be carried out by regulatory authorities or by the hazardous facilities operator (self-monitoring), with appropriate reporting procedures to the regulatory authority (refer Section 4.6.3.9).

Self-monitoring by the consent holder may cover specific matters or be part of a wider management system, and needs to include reporting to the regulatory authority on a regular basis. Issues covered by self-monitoring regimes can include inspection and site/equipment maintenance, incident/accident reporting, training and any changes in the management of hazardous substances on the site during the consent period.

A monitoring strategy for a hazardous facility can include the following matters:

- hazardous substance inventories
- inspection schedules for site, storage areas and equipment (daily, weekly, monthly, events based)
- testing of performance of equipment (e.g. examination of tanks/pipelines/ valves, stormwater retention/treatment devices)
- testing of procedures (e.g. evacuation or spill response)
- training programmes for new staff, updates for existing staff
- audits of sites and site management systems.

#### **4.6.3.8 Codes of Practice**

Codes of Practice may be used as means to achieve compliance with specific resource consent conditions. Examples of relevant codes include the *Code of Practice for Design, Installation and Operation of Underground Petroleum Systems* (Department of Labour – OSH) or the *Code of Practice for Warning Signs for Premises Storing Hazardous Substances* of the NZCIC. It is expected that new Codes of Practice will be developed and existing Codes updated under the HSNO Act. A bibliography of useful guides, Codes of Practice and Standards is contained in Section 10 of this document.

#### **4.6.3.9 Reporting**

Reporting requirements placed on the consent holder will primarily focus on supplying data to the regulatory agency at specified intervals to demonstrate compliance with the RMA and relevant rules, as well as resource consent conditions. Reporting requirements may cover hazardous substance inventories, relevant inspection/monitoring data, records on incidents/accidents, testing of equipment and staff training, as well as results of site or systems audits.

#### **4.6.4 Involvement of technical specialists**

In some instances, hazardous substance/hazardous facilities experts may need to be involved in the preparation and/or assessment of hazardous facilities consent applications. This may be the case where specialist expertise by either the consenting authority or the applicant (or both) is not available, or where reasonably complex risk assessment and/or management procedures may need to be developed and utilised.

Examples of where specialist involvement may be necessary are the application of the HFSP and the establishment of the consent status of the proposal, or the development of measures to limit or mitigate risks. In some instances, this process may be managed entirely by the specialist. Technical specialists may also assist either the applicant or the consenting authority with particular aspects of the proposal and application.

#### **4.6.5 Consultation**

Good consultation between the applicant and the relevant regulatory authority or authorities is very important. Depending on the scale of a proposed hazardous facility, this may need to start well before any applications are lodged. Obtaining and issuing consents for hazardous facilities are seldom routine procedures due to the varying nature of such facilities, the sometimes highly technical nature of the information and the reasonably small number of applications in comparison with other consent applications.

For non-routine and/or large-scale proposals, in-depth discussions about the proposal may be necessary, and it is important that the lines of communication between the applicant and council representatives are kept open and maintained during the entire process. In many instances, technical advisors and hazardous substance specialists may be engaged by one or both parties. A clear understanding of the respective roles and responsibilities of everyone involved in the process will assist in constructive discussions and the smooth processing of an application.

#### **4.6.6 Monitoring and enforcement by regulatory authorities**

At present, monitoring and enforcement of district plan and other applicable rules for hazardous facilities/substances and hazardous facilities resource consent conditions by regulatory authorities are highly variable. Few nominated enforcement persons have been assigned to carry out hazardous facilities monitoring and enforcement activities. In many instances, dangerous goods inspectors have until now carried out some functions under the RMA, without always having the necessary authority.

Monitoring and enforcement of hazardous facilities controls under the RMA may in future be linked to the enforcement regime under HSNO. Dedicated HSNO enforcement officers will carry out this function. Appropriate authority needs to be given to these officers under the RMA, if they are to carry out the monitoring and enforcement of resource management specific matters. Training in the resource management area may need to be provided to such staff. This could, however, also apply to other persons carrying out monitoring functions under the RMA in respect to hazardous substance management. It is noted that the extent to which individual TAs provide enforcement under HSNO is still being developed. However, it is important that TAs develop a strategy for monitoring and enforcing hazardous substance controls that addresses the necessary links between the various functions.