

2019

Plan Topics

Hazardous Substances under the RMA

This guidance has been revised to include changes to the RMA as a result of the Resource Legislation Amendment Act 2017 (RLAA17). The changes relating to hazardous substances came into effect on 19 April 2017. For more information about the amendments refer to the RLAA17 - Fact Sheets on the [Ministry's website](#). Fact sheet 2 addresses changes in relation to hazardous substances.

Introduction

Hazardous substances have the potential to benefit New Zealand's communities, the environment and the economy. They are found in our homes, at work, businesses, industry, horticulture and agriculture. However, hazardous substances can have adverse effects on the environment, including people and communities, if not managed appropriately.

This guidance note is intended to help RMA practitioners understand the role of the Resource Management Act 1991 (RMA) in relation to hazardous substances. To do so it is necessary to understand the roles of the Hazardous Substances and New Organisms Act 1996 (HSNO Act) and the Health and Safety at Work Act 2015 (HSW Act).

Historically, due to an explicit requirement in the RMA for councils to control the adverse effects of the storage, use, transportation and disposal of hazardous substances, RMA plans have contained controls on hazardous substances, including in relation to the nature of the hazardous substances themselves. For example, many RMA plans contained (and many still contain) a threshold approach (volume triggers) or the use of the Hazardous Facility Screening Procedure (HFSP), to determine whether resource consent is required for the use, storage, disposal or transportation of a particular hazardous substance. However, these approaches often duplicate the HSNO Act and/or the HSW Act controls. These approaches also generally fail to recognise that the storage, use and handling of hazardous substances is usually a subset of the risks and effects associated with an activity and the extent to which these are typically addressed by zoning provisions in the first instance.

The Resource Legislation Amendment Act 2017 (RLAA) removed the explicit function of regional and territorial authorities under section 30 and 31 to control the adverse effects of the storage, use, disposal and transportation of hazardous substances to ensure RMA controls do not duplicate controls in the HSNO Act and HSW Act. RLAA also introduced a procedural principle to ensure that council plans and policy statements include only matters relevant to the purpose of the RMA (ss18A). While councils do retain a broad power under the RMA to manage hazardous substances through their plans and policy statements to achieve the purpose of the RMA and to carry out the function of integrated management of natural and physical resources in their region/district, this should only be exercised where the potential environmental effects are not adequately addressed by other legislation.

In most cases, the HSNO Act and the HSW Act controls are adequate to avoid, remedy or mitigate adverse environmental effects of hazardous substances. However, in particular circumstances it may be appropriate that RMA controls are used, subject to robust s32 analysis to ensure that such controls are effective and efficient (refer to *Areas where RMA controls may be necessary*). The expectation is that controls on hazardous substances in RMA plans will be the exception rather than the norm.

The RLAA sent a clear message that councils should re-evaluate their current hazardous substances provisions to determine if they are necessary to deal with any potential environmental effects not covered by other legislation. Provisions that cannot be justified should be removed.

Despite controls under relevant legislation there will always remain a risk of loss of containment of hazardous substances. Legislation such as the HSNO Act and HSW Act is designed to address risk. Where hazardous substances are split into the environment councils can consider the appropriateness of enforcement action under the RMA. Section 17 of the RMA also states that every person carrying out an activity has a duty to avoid, remedy, or mitigate any adverse effects on the environment, whether or not an activity has resource consent or is permitted by a rule in a plan. This provision provides a 'back stop' where there are unanticipated effects arising from the use of hazardous substances. Even if permitted by a rule or a resource consent, actions can be taken against persons that use hazardous substances where this is resulting in adverse effects on the environment. Regional councils may also need to manage any residual contaminants within the environment in accordance with their functions of managing contaminated land and/or discharges, rather than to the management of hazardous substances per se.

Understanding how hazardous substances are managed

Hazardous Activities/Facilities

The term 'hazardous activity (or facility)' is not defined in the HSNO Act, the HSW Act or the RMA. However, the term has commonly been used in district and regional plans to refer to activities that involve the use, storage, manufacturing and disposal of hazardous substances. However, there is wide variation on what is included as a hazardous facility in Plans. For example, RMA have included the following as hazard activities/facilities:

- Industrial operations such as chemical warehouses, manufacturing plants or bulk storage facilities;
- Engineering businesses;
- Transport operations;
- Food production and processing facilities;
- Manufacturing plants of household appliances, industrial machinery or other products;
- Small workshops;
- Agricultural or horticultural activities;
- Activities associated with oil or gas production or storage; and
- Structures such as pipelines used for the transfer of hazardous substances like gas, oil and fuel.

If councils manage certain aspects of hazardous substances at a hazardous facility and councils plan to use the term 'hazardous facility (or activity)', it is important to understand how it is defined and the scope of activities it may capture. Being clear on the definition and scope of the term will help to ensure that a range of other activities involving the use of hazardous substances are not accidentally captured.

Hazardous Substances and New Organisms Act 1996 (HSNO Act)

The HSNO Act is the primary legislation designed to manage hazardous substances across their life cycle (import/manufacture, classification, packaging, transport, storage, use and disposal). The purpose of the HSNO Act as set out in section 4 is to *'protect the environment, and the health and safety of people and communities by preventing or managing the adverse effects of hazardous substances and new organisms'*.

The HSNO Act is administered by the Ministry for the Environment, and implemented and enforced by the [Environmental Protection Authority](#) (EPA), which regulates the introduction and use of any hazardous substances, and also enforces any hazardous substance controls.

Every hazardous substance must have an approval under the HSNO Act. It is an offence to knowingly use, import or manufacture hazardous substances in contravention of the HSNO Act. The EPA oversees applications made under the HSNO Act to import and manufacture hazardous substances. The EPA assesses the risks to people and the environment of each hazardous substance and decides whether they should be approved for use in New Zealand. The EPA also determines what controls should be in place for approved substances to ensure any risks to people and the environment are mitigated (such as in relation to labelling, packaging, safety data sheets, content of the hazardous substances, ecotoxic and human health controls, and their disposal). The EPA is also an enforcement agency with respect to these controls and is responsible for ensuring that importers and manufacturers comply with them. The controls under the HSNO Act are substance specific and are based on the particular hazardous properties of the substance. The controls apply anywhere, anytime to a given substance classified as hazardous and do not take into account the sensitivity of the receiving environment. T

There are over 100,000 different types of hazardous substances approved for use in New Zealand ranging from explosives, pesticides, industrial chemicals, paints, fertilisers and petroleum products to household cleaners and cosmetics.

A substance is only classed as hazardous for the purposes of the HSNO Act if it meets the threshold for determining whether a substance has any one of the intrinsic hazardous properties. A threshold is the amount or concentration of a substance that is likely to cause an adverse effect on people or the environment. It is a trigger level for an effect that may require controls on the substance to meet the purpose of the HSNO Act. The thresholds for the HSNO Act hazardous properties are set out in Schedules 1 to 6 of the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017. Clause 4 of the Notice states that a substance is not hazardous for the purposes of the HSNO Act unless data indicates it meets the minimum degrees of hazard for at least one of the intrinsic hazardous substance properties specified. The intrinsic properties are given classifications i.e. explosives are designated as Class 1 substances and flammable substances are classes 2 to 4. Details of these classifications can be found [here](#).

Health and Safety at Work Act 2015 (The HSW Act)

The HSW Act gives [Worksafe New Zealand](#) the responsibility for establishing workplace controls for hazardous substances, and is the principal enforcement and guidance agency in workplaces. The main purpose of the HSW Act is to provide for a balanced framework to secure the health and safety of workers and workplaces. This legislation is supported by a range of other regulation and guidance. See the [Health and Safety at Work Act 2015](#) for more detail.

WorkSafe's functions include monitoring and enforcing compliance with work health and safety legislation, and providing guidance, advice and information. WorkSafe enforces controls for environmental hazards and disposal requirements for all hazardous substances in the workplace.

WorkSafe also enforces the [Health and Safety at Work \(Hazardous Substances\) Regulations 2017](#) (HSW HS Regulations), and the [Health and Safety at Work \(Major Hazardous Facilities\) Regulations 2016](#) (MHF Regulations) under the HSW Act.

The HSW HS Regulations apply to the 'downstream' manufacture, use, handling and storage of hazardous substances in the workplace. WorkSafe's role also includes providing guidance, managing the compliance certification regime, and developing [safe work instruments](#) to set more detailed and technical rules for hazardous substances.

The MHF Regulations which came into force on 4 April 2016, mandate specific duties relating to process safety for existing and potential Major Hazardous Facilities (MHF).

MHF are defined under regulation 19 and 20 of the MHF Regulations as "*workplaces that have significant inherent hazards due to the storage and use of large quantities of specified hazardous substances.*" Failure to control risks associated with these facilities could result in catastrophic consequences.

For further information relation to Major Hazard Facilities in relation to the MHF Regulations, refer to the Worksafe website: <https://worksafe.govt.nz/topic-and-industry/major-hazard-facilities/>. For further information relation to MHF in the resource management context refer to *Where land uses are incompatible* below.

Substances not controlled by the HSNO Act, the HSW Act or associated Regulations:

Food - Food additives are regulated under the HSNO Act before they are incorporated into food. Food is covered by food standards and the [Food Act 2014](#)

Medicines - In finished dose form. Medicines are covered by the [Medicines Act 1981](#)

Hazardous biological substances - Infectious material includes material containing micro-organisms (unless the micro-organisms are new to New Zealand).

Radioactive substances - radioactive substances are covered by the [Radiation Safety Act 2016](#)

Ozone depleting substances - the impact on the ozone layer by ozone depleting substances and their phase out are covered by [the Ozone Layer Protection Act 1996](#). Note that any other hazardous aspects of ozone depleting substances are controlled by the HSNO Act.

Areas where RMA controls are generally not necessary:

Use of 1080 - The aerial application of 1080 is regulated under HSNO and its application is specifically allowed for under the Resource Management (Exemption) Regulations 2017. There is therefore very little value in RMA plans including controls on the use and application of 1080. Further guidance and information regarding these regulations can be found on the [MfE website](#).

Signage - The HSNO Act includes specific requirements for signage, and what specifications this signage should meet. Signage required by other legislation and regulation should be enabled through district plans.

Tank Standards - The HSNO regulations include controls on tanks for every classification of hazardous substance used in New Zealand. These standards are designed to provide an appropriate level of protection in normal circumstances. In most cases, there is little value in RMA plans specifying tank controls.

In some locations with unusual site-specific characteristics, there may be added value in specifying additional controls. An example of this could include additional containment or leak detection measures for substances which are likely to travel extensively and are persistent in the environment (noting that petroleum plumes have been shown to seldom exceed 100m and also break down naturally) **and** where tanks are located on an unconfined aquifer used for drinking water supplies.

Where these additional controls are considered necessary, the plan should clearly identify what is covered by HSNO, and what the plan requires in addition to HSNO, and what locations these additional controls apply to.

Disposal and waste management of hazardous substances - Disposal of hazardous substances is covered by the disposal regulations under HSNO, which set controls on the disposal of substances based on their HSNO classification. In addition, discharge provisions in regional plans also restrict inappropriate disposal of hazardous substances. Those with roles in the waste disposal process (i.e. waste collectors, landfill operators etc) are ultimately responsible for ensuring waste they accept is disposed of appropriately in accordance with these discharge controls.

Areas regulated under HSNO Act - e.g. explosive substances, flammable substances, oxidising substances, toxic substances, corrosive substances, eco-toxic substances and compressed gases.

Areas where RMA controls may be necessary

In most circumstances, the HSNO Act and HSW Act provide an appropriate level of management of hazardous substances. However, there will be some situations where RMA controls may be justified.

The need to place controls in RMA plans to manage the effects of use of hazardous substances will differ according to local circumstances and is generally only warranted when hazardous substances are located within sensitive environments and/or incompatible activities. The need for any controls must be justified through a robust section 32 evaluation that demonstrates why a degree of environmental protection over and above

that provided for under other legislation, such as the HSNO Act or the HSW Act, is necessary within that particular local context. The following guidance provides information on circumstances where it might be justified and appropriate to include controls in RMA plans and policy statements to manage specific and local environmental effects of managing, handling and storing hazardous substances. The focus of any such provisions should be on ensuring the risk of adverse effects is acceptable, rather than on risk avoidance.

Where land uses are incompatible

The use and handling of hazardous substances is usually a subset of the risks and effects associated with a particular land use activity and, as such, the anticipated adverse effects of the activity is typically addressed by zone provisions it is located in.

The HSNO Act and HSW Act have a generic consideration of surrounding land uses, by including different clearances with respect to specific substances (HSNO Act) or hazardous facilities according to surrounding land uses (HSW Act). Most of these controls apply regardless of where that substance is stored or used and apply a precautionary approach, which provides an acceptable level of safety, including in respect of separation distances, in most circumstances. Generally, the HSNO and HSW Acts will be adequate to ensure risks, including cumulative effects, associated with hazardous facilities (activities that use, store, manufacture and/or dispose of hazardous substances) are contained on a site. However, some hazardous facilities, may have potential for off-site effects, despite compliance with HSNO and the HSW Act, for instance some Major Hazardous Facilities (MHF).

Where necessary and appropriate, managing the effects of activities that use, store, manufacture and/or dispose of hazardous substances in relation to surrounding land uses may be achieved under the RMA by:

1. Managing the establishment of hazardous substances/facilities adjacent to and within sensitive environments to ensure acceptable levels of risk of off-site adverse effects; and
2. Preventing sensitive or incompatible activities establishing in areas where hazardous facilities/activities are located where these activities have the potential to constrain or curtail the operation of a lawfully established hazardous facility.

Major Hazard Facilities (MHF)

Particular attention should be given to potential land incompatibility issues associated with MHF. As noted above, MHF are defined under regulation 19 and 20 of the Health and Safety at Work Regulations 2016 (the MHF Regulations). They are workplaces that have significant inherent hazards due to the storage and use of large quantities of specified hazardous substances. Failure to control risks associated with these facilities could result in catastrophic consequences. The MHF Regulations mandate specific duties relating to process safety for existing and potential MHFs.

Specific requirements in the MHF regulations include:

- Operators of proposed MHFs are required to notify WorkSafe that their facility is likely to equal or exceed the threshold quantity for an MHF. The notification needs to include information about the land use and other activities in the area surrounding the facility or proposed facility (regulation 12)

- The operator of each MHF must prepare and test an emergency plan – which must include a map showing the site of the MHF and land use and occupancy, any MHF and any hazardous substance storage sites that are known to the operator, within a 2 km radius of any point on the perimeter of the MHF (regulations 31 and 32)
- Operators of an Upper Tier MHF are required to prepare safety cases and submit them to WorkSafe for acceptance. An Upper Tier MHF must have an accepted safety case to operate. A safety case is a document that summarises and describes process safety related systems and controls in sufficient detail to demonstrate their adequacy. The safety case must include demographic information about the local community, including authorised land uses, within a 2 km radius of any point on the perimeter of the UTMHF. (regulation 45 and schedule 7)
- The operator of a MHF has a duty to provide plain English information to the local community about their MHF including contact details, how they would inform the local community if a major incident occurs and what to do if there is a major incident (regulation 66).

For sites or operations that store or use particularly large volumes of hazardous substances (including MHF), councils may want to consider controls that extend beyond HSNO Act, whereby a wider assessment of the surrounding land uses and environment will be required. Any assessment matters or restriction of discretion in relation to these types of activities (e.g. bulk fuel storage, large scale chemical or explosive storage and manufacture etc), will need to consider what the risks are and what information council will need to assess these risks.

Where there are sensitive receiving environments

The HSNO Act and HSW Act have a generic consideration of surrounding land uses, by including different clearances with respect to specific substances or hazardous facilities according to surrounding land uses. Most of these controls apply regardless of where that substance is stored or used, which provides an acceptable level of safety in most circumstances.

However, to within or adjacent to particularly sensitive receiving environments, additional controls under the RMA may be justified to appropriately manage the adverse effects and risks associated with hazardous substances. For example, a rule might be imposed in a plan imposing permitted activity conditions or requiring resource consent for hazardous facilities within a certain setback distance from sensitive areas, such as wetlands or sources of reticulated potable water. This would allow site-specific requirements to be imposed to ensure the potential adverse effects on these receiving environments from hazardous substances are appropriately managed. Any such controls should only address matters not appropriately addressed under other legislation.

Reverse sensitivity issues

For the purposes of this guidance note, reverse sensitivity can be defined as the potential for the operation of an existing lawfully established activity to be constrained or curtailed by the more recent establishment or intensification of other activities which are sensitive to the established activity. Under the RMA, new activities may be restricted where they have the potential to result in reverse sensitivity effects in order to protect established activities and their operations.

In relation to hazardous substances, this can occur where sensitive activities (such as residential activities or places of assembly) are allowed to locate in proximity to existing hazardous facilities. This can be of concern, because these activities are particularly sensitive to the operation of hazardous facilities, which can have adverse effects, or risks beyond the site boundary that may not be able to be completely avoided or mitigated. For most activities, this is often achieved through the underlying zone or overlay provisions, such as a non-complying status for sensitive activities within industrial zones.

Reverse sensitivity effects are not specifically addressed under the HSNO Act or HSW Act as these Acts do not provide regulatory powers or controls in relation to land use planning. The MHF Regulations only control the hazardous facility itself, not surrounding land uses. Therefore, it is important that land use planning minimises exposure to people close to a hazardous facility (particularly a MHF). Historically, the focus has been on the management of hazardous substances themselves, and not issues regarding encroachment around hazardous facilities.

MHF have requirements under the HSW Act (and associated regulations) to ensure the safety of workers on the site and those nearby. Encroachment of sensitive activities around MHF can therefore significantly impede their ability to meet their regulatory requirements. Any such constraints are potentially significant, noting that the list of MHF (found on the [Worksafe website](#)), includes infrastructure of national and regional significance. These facilities involve significant investment, and often have a functional need to be located in a particular location. In the worst case scenario, reverse sensitivity effects may result in MHF sites having to stop operating, which would have significant implications for communities and their well-being.

Councils need to be fully aware of the significance and potential risk from a MHF, when considering sensitive land uses or intensification of existing activities near an MHF. Depending on the risk, it may be appropriate to consider land use restrictions on land in the vicinity of a MHF, to enable the MHF to carry out its operations, including maintenance and upgrades, without being unreasonably constrained by sensitive activities subsequently locating near a MHF.

Cumulative risks of multiple hazardous facilities

The HSNO Act and the HSW Act controls are substance and location-specific and do not address cumulative risk in the case of an accident. Cumulative risks may result from similar types of risks presented by neighbouring facilities, or from potential multiple adverse events through time. For most small to medium hazardous facilities, cumulative risks are generally not a significant issue that warrant controls in RMA plans, but they may be for larger facilities to ensure risks are acceptable.

Areas prone to natural hazards

Many plans contain natural hazard risk overlays to control the development of land to avoid or reduce the risks of natural hazards. In these areas, risk assessments are often required to determine the potential risks of an activity and how it may be affected by, the relevant natural hazard event (including in respect of frequency and consequences). These risk assessments should also determine the effectiveness of mitigation, if any, to protect the environment and human health. The proximity of activities which use hazardous substances to areas subject to natural hazards can increase the likelihood of a release of a hazardous substance into the environment should a natural hazard event

occur. The location of hazardous facilities in relation to areas prone to natural hazards is therefore something which councils may consider addressing through RMA plan provisions if there is evidence that the existing regulatory controls are insufficient to adequately address risk in those areas. Consideration should also be given to climate change effects which have the potential to increase the frequency, magnitude, and consequences of natural hazard events.

Councils may find that the requirements within their RMA plans relating to buildings and development in areas identified as being subject to natural hazards, combined with the HSNO Act and HSW Act requirements and requirements under other legislation such as the Building (Earthquake-prone Buildings) Amendment Act 2016, are sufficient to protect the building or site in which a hazardous substance is used or stored from the natural hazard risk. Where the risk of a natural hazard is greater, councils may place additional controls on the location of certain activities (such as industrial activities) or hazardous substances within the specified natural hazard risk area. It is not warranted to impose blanket controls on all hazardous substances on land considered hazard prone as this would likely result in significant consenting requirements without adding significant benefits.

Discharges

The HSNO Act and HSW Act do not directly manage discharges of hazardous substances/contaminants to land, water and air. In controlling how these substances are stored and used, they do however have an important role to play in mitigating potential for discharges. For example, in relation to petroleum refuelling facilities, despite management in accordance with the HSNO Act, there remains potential for discharges to land, water and air from refuelling activities. It is therefore appropriate that the potential adverse effects of these discharges are managed by regional councils, for instance through industrial and trade activity provisions. Regional councils need to consider the HSNO Act and HSW Act controls and any relevant controls under the Agricultural Compounds and Veterinary Medicines Act 1997 (ACVM Act) when including controls on discharges from hazardous substances in their plans to avoid unnecessary duplication or confusion. Use and disposal of hazardous substances still must comply with the HSNO Act, HSW Act and where relevant the ACVM Act or any other relevant legislation.

For example, regional plans may require resource consent for the use and discharge of agrichemicals such as fertilisers and pesticides. However, fertilisers, agricultural herbicides and other pesticides have existing controls under HSWA and the HSNO Act, and the ACVM Act. Councils should review the controls imposed under the HSNO Act, HSW Act and ACVM Act and only include additional controls in their plans where these Acts are considered insufficient to avoid, remedy or mitigate adverse effects on the environmental and public health.

Substances outside HSNO

Under the RMA, the definition of hazardous substances¹ includes, *but is not limited to*, any substance defined in the HSNO Act as a hazardous substance. This means that under the RMA, hazardous substances can encompass a wider range of substances and hazardous properties, than under HSNO.

¹ Note that *hazardous substances* and *contaminants* are defined separately in the RMA,

RMA plans and policy statements may control substances which, due to particular properties, can have adverse effects on ecosystems and wildlife but are not considered eco-toxic under the HSNO Act. Such properties include the potential to cause high biochemical oxygen demand in natural waters when the substance enters such waters, leading to rapid oxygen depletion, for example some agrichemicals. Other environmentally damaging properties include the potential for smothering effects, for example those caused by certain oils.

Methods to managing effect of hazardous substances in RMA Plans

One of the key circumstances where councils may want to consider addressing hazardous substances in their RMA plans is where the risk to the receiving environment is of such significance that the risk of a hazardous facility in a specific location may not be acceptable without additional mitigation, taking into account controls under HSNO Act and the HSW Act. In order to understand this risk, a risk analysis needs to be undertaken.

There are no standard risk criteria for hazardous substances in New Zealand but there are international criteria which are widely referenced. In particular, the New South Wales Hazardous Industry Planning Advisory Papers no. 3 (Risk Assessment) and 4 (Risk Criteria for Land Use Safety Planning) has widely been used in the New Zealand context, and can be reflected in risk any management area overlays. These papers (and more) can be found here: <https://www.planning.nsw.gov.au/policy-and-legislation/hazards>.

As a first step, councils should focus on the following when they are reviewing their RMA hazardous substances plan provisions:

1. Identifying specific hazardous substance related activities that are occurring within their area that might pose a risk off site (such as [Major Hazard Facilities](#)), and
2. Identifying the probability of a particular risk event (such as a fire or explosion); and
3. Identifying specific sensitive land uses that may require additional protection (e.g. sites of ecological significance and areas prone to natural hazards).

Councils need to then determine whether there is appropriate environmental protection through the HSNO Act and/or HSW Act or any other relevant legislation. Consideration should then be given to whether adequate controls are provided through zoning/overlay controls and, if not, work out if it is necessary to provide additional protection for any of these areas or activities. This analysis should be undertaken in consultation with key stakeholders (i.e. operators of hazardous facilities that understand their HSW Act and the HSNO Act compliance requirements).

In most circumstances, this analysis is likely to show that the HSNO Act, the HSW Act and/or existing zoning controls and/or overlays in plans provide adequate protection to manage the risks of hazardous substances and it is unnecessary to place additional control on hazardous substances. For example, hazardous substances in non-domestic quantities are usually associated with industrial activities, which are generally undertaken in industrial zones. Industrial activities are less likely to experience reverse sensitivity effects from neighbouring land uses who would typically be undertaking similar activities. Conversely, activities that use hazardous substances in large quantities in more sensitive zones (i.e. within residential areas) have greater potential for adverse effects on surrounding land uses. In these areas, additional controls on the establishment of

hazardous facilities may be necessary to ensure that the effects/risks of these activities are addressed. Councils will also need to be satisfied that any controls around hazardous facilities (existing or anticipated) are sufficient to ensure sensitive activities cannot establish without appropriate consideration of risk, including reverse sensitivity effects.

Use of Risk Overlays and/or Separation Distances

Councils may include controls on hazardous substances to address effects not appropriately addressed by compliance with the HSNO Act and HSW Act through the use of location specific risk overlays or separation distances (using risk contours based on a risk analysis). For example, a risk overlay or a separation distance rule could be used to as a method to manage the risk around major hazard facilities to prevent the encroachment of sensitive activities within a certain contour/distance.

Overlays or separation distances could also be used in relation to a particularly sensitive receiving environment (e.g. unconfined aquifers used for drinking water purposes and/or particular natural hazard areas) to manage hazardous facilities near or within these areas.

These methods may be justifiable to enable the risk to be managed to an acceptable level, provide for the establishment of hazardous facilities in suitable locations, and protect people, property and the environment from unacceptable risks.