

PART M

HAZARDOUS SUBSTANCES

M. HAZARDOUS FACILITIES

M.1 HAZARDOUS FACILITIES MANAGEMENT STRATEGY

Council has adopted an approach to managing hazardous facilities that focuses on assessing potential adverse effects of three kinds:

- effects caused by fire and/or explosion;
- effects on human health;
- environmental effects.

Possible adverse effects of hazardous substances can be predicted by the hazard of the substance and the anticipated consequences of its release. Adverse effects include:

- contamination of water, soil and air;
- short and long term damage to ecosystems;
- accumulation of persistent substances in the bodies of humans and animals, resulting in chronic and/or delayed onset damage to their health;
- acute damage to human health;
- damage to the environment from fire or explosion events;
- damage to human health and property from fire or explosion events.

In order to assess the hazard posed by various substances and the risk they present, Council has adopted the *Hazardous Facility Screening Procedure* (HFSP) for use in assessing hazardous activities or facilities.

M.2 THE HAZARDOUS FACILITIES SCREENING PROCEDURE

The *Hazardous Facility Screening Procedure* will be applied to all proposed new facilities using or storing hazardous substances.

Existing facilities will not be subject to the HFSP unless they significantly expand or alter their operations. A significant alteration occurs when the effects of the use are not the same or similar in character, intensity or scale as previously, as is defined by Sections 10, 10A and 20 of the Resource Management Act. In general, a significant change can be defined as a 20-30% or higher increase in the storage or use of hazardous substances, or a change in the type of process carried out on the site. It is unlikely that the replacement of tanks or other equipment would attract screening by the HFSP, unless this would enable a considerable increase in the storage or use of hazardous substances.

The HFSP will be used as a screening tool to assist in making decisions on:

- whether a proposed hazardous facility is permitted, subject to defined minimum conditions; or
- whether it requires a consent and additional, merit based assessment of risks.

A copy of the HFSP is available at Council offices.

M.3 MINIMUM CONDITIONS FOR HAZARDOUS FACILITIES

The following minimum standards address the discharge of liquids and solids, and shall apply to all hazardous facilities.

M.3.1 Site Design

1. Any part of a hazardous facility site where hazardous substances are used for their intended function shall be designed, constructed and managed in a manner that prevents:
 - (i) any effects of the intended use from occurring outside of the intended target area;
 - (ii) the entry or discharge of the hazardous substances into the stormwater drainage system;
 - (iii) the entry or discharge of the hazardous substances into the sewerage system, unless permitted by the sewerage utility operator.

2. Any part of a hazardous facility site where hazardous substances are used, stored, manufactured, mixed, packaged, loaded, unloaded or otherwise handled shall be designed, constructed and managed in a manner that prevents:
 - (i) the contamination of any land and/or water (including ground water and potable water supplies) in the event of a spill or other unintentional release of hazardous substances;
 - (ii) the entry or discharge of the hazardous substance into the stormwater drainage system in the event of a spill or other unintentional release;
 - (iii) the entry or discharge of the hazardous substance into the sewerage system in the event of a spill or other unintentional release.

3. The hazardous facility site shall be designed, constructed and managed in a manner that any stormwater originating on or collected on the site that has become contaminated:
 - (i) does not contaminate any land and/or water (including ground water and potable water supplies) by acting as a transport medium for hazardous substances unless permitted by a resource consent;
 - (ii) does not enter or discharge into the stormwater drainage system;
 - (iii) does not enter or discharge into the sewerage system unless permitted by the sewerage utility operator.

Adherence to the following design guidelines is deemed to comply with this condition:

Spill Containment System

The parts of the hazardous facility site described in 2 and 3 above shall be serviced by a spill containment system that is:

- (i) constructed from impervious materials resistant to the hazardous substances used, stored, manufactured, mixed, packaged, loaded, unloaded or otherwise handled on the site;
- (ii) able to contain the maximum volume of the largest tank used, or where drums or other containers are used, able to contain half of the maximum volume of substances stored;
- (iii) able to prevent any spill or other unintentional release of hazardous substances and any stormwater and/or fire water that has become contaminated from entering the stormwater drainage system;
- (iv) able to prevent any spill or other unintentional release of hazardous substances and any stormwater and/or fire water that has become contaminated from discharging into or onto land and/or water (including groundwater and potable water supplies) unless permitted by a resource consent.

Stormwater Drainage

All stormwater grates on the site shall be clearly labelled "Stormwater Only".

Washdown Areas

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

- (i) entry or discharge into the stormwater drainage system;
- (ii) entry or discharge into the sewerage system unless permitted by the sewerage utility operator;
- (iii) discharge into or onto land and/or water (including groundwater and potable water supplies) unless permitted by a resource consent.

M.3.2 Storage Tanks/Containers

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

Adherence to the Code of Practice for "Design, Installation and Operation of Underground Petroleum Systems" (Department of Labour - Occupational Safety and Health) is deemed to be one method of complying with this condition.

2. Bulk storage tanks containing liquids classed as toxic substances or corrosives in the Code of Practice for the Transport of Hazardous Substances on Land NZS 5433:1983 shall comply with Regulation 1a of the Toxic Substances Regulations 1983.

M.3.3 Signage

Any hazardous facility shall be adequately signposted to indicate the nature of the substances stored, used or otherwise handled.

Adherence to the Code of Practice for “Warning Signs for Premises Storing Hazardous Substances” of the New Zealand Chemical Industry Council, or any other Code of Practice approved by the New Zealand Fire Service is deemed to be one method of complying with this condition.

M.3.4 Waste Management

1. Any process waste or waste containing hazardous substances shall be managed to prevent:
 - (i) the waste entering or discharging into the stormwater drainage system;
 - (ii) the waste entering or discharging into the sewerage system unless permitted by the sewerage utility operator;
 - (iii) the waste discharging into or onto land and/or water (including groundwater and potable water supplies) unless permitted by a resource consent.
2. The storage of any process waste or waste containing hazardous substance shall at all times comply with the conditions in section M.3.1.
3. The storage of any waste containing hazardous substances shall be in a manner that prevents:
 - (i) the exposure to ignition sources;
 - (ii) the corrosion or other alteration of the containers used for the storage of the waste;
 - (iii) the unintentional release of the waste.
4. Any hazardous facility generating waste containing hazardous substances shall dispose of these wastes to appropriately permitted facilities, or be serviced by a reputable waste disposal contractor.

M.4 OTHER ASPECTS OF HAZARDOUS FACILITY MANAGEMENT

M.4.1 Cross Boundary Effects

The Hazardous Facility Screening Procedure and the management strategy of which it is a part focus on the potential off-site effects a hazardous facility may have on the environment, people and property, including surrounding land uses.

Liaison between neighbouring district/regional councils to ensure that zoning or land use strategies are compatible is therefore essential. This is of particular importance where a hazardous facility is located at district/regional boundaries and has the potential to affect the neighbouring district/region.

Cross-boundary liaison is also important with respect to the transport of hazardous substances. Where a Council identifies specific transport routes, it needs to ensure that this is compatible with district/regional plans of other affected authorities.

M.4.2 Transport Of Hazardous Substances

The transport of hazardous substances poses risks that are similar to those posed by use and storage in terms of uncontrolled releases, but require substantially different methods of control. Traditionally, transport planning for the movement of hazardous substances has relied almost exclusively on technical controls and traffic-related considerations. The Resource Management Act 1991 now provides the opportunity to integrate land use and transport planning for hazardous substances.

Local Authorities can control the transport of hazardous substances in two ways:

- designation of appropriate transport routes; and
- requiring a consent holder to use certain transport routes as part of the consent conditions

The legislation, regulations and Codes of Practice addressing the transport of hazardous substances include:

- Civil Aviation Act 1964.
- Civil Aviation Regulations 1973.
- Dangerous Goods Act 1974 and associated regulations.
- Explosives Act 1957.
- Explosives Regulations 1959.
- Toxic Substances Act 1979.
- Toxic Substances Regulations 1983.
- Transport Act 1962 and Transport Amendment Act 1989.

- Traffic Regulations 1976.
Truck Loading Code (Ministry of Transport 1985).
- Instructions for the Safe Carriage of Hazardous Goods Traffic (New Zealand Railways 1980) NZS 5417:1988: Transportation Labels for Hazardous Substances (New Zealand Standards Association).
- NZS 5418:1983: Transportation Containers for Hazardous Substances (Parts 1 and 2) (New Zealand Standards Association).
- NZS 5433:1988: Code of Practice for the Transportation of Hazardous Substances (Parts 1 and 2) (New Zealand Standards Association).
- Code of Practice for Vehicles Transporting LP Gas in Bulk by road (Department of Labour).
- Corrosive Tank Wagon Code (Department of Labour, 1986).
- Flammable Tank Wagon Code (Department of Labour, 1986).
- LPG Tank Wagon Code (Department of Labour, 1986).

These controls are mainly technically orientated and do not directly address risk-related aspects. It is therefore important that local authorities recognise the risk associated with the transport of hazardous substances and utilise such tools available to them to prevent or mitigate such risks.

M.4.3 Disposal Of Hazardous Substances

The disposal of wastes containing hazardous substances should occur at available facilities only. Such facilities will require consents from a territorial local authority as well as from a regional council.

M.4.4 Monitoring

Monitoring by the consent authority is an integral component of any management strategy to establish the effectiveness or otherwise of the adopted system. With respect to land use planning for hazardous facilities, the following matters should be considered for inclusion in monitoring programmes:

- information on the location and layout of the facility;
- the quality and availability of plant documentation, including operating procedures;
- information about the nature and quantity of the hazardous substances used, stored and transported;
- process description and design;
- emergency planning for the facility
- transport movements and routes
- information on waste management; and
- a review of the hazards and safeguards in place.

Where deemed appropriate, Council may require the consent holder to undertake self-monitoring.

M.5 EXCEPTIONS: WHERE THE HFSP SHOULD NOT BE APPLIED:

Although the *Hazardous Facility Screening Procedure* was developed to be able to handle any substances, it is not suitable for the following situations:

- trade waste, sewage and waste treatment or disposal facilities, due to the difficulty of identifying the quantity and nature of the substances involved;
- storage or use of hazardous consumer products for private domestic purposes, because the degree of hazard is generally below the scale of potential effects considered by the HFSP;
- retail outlets for the domestic usage sale of hazardous substances (e.g. supermarkets, hardware shops, pharmacies), because storage of hazardous substances is generally in small packages;
- facilities using genetically modified or new organisms;
- developments that are or may be hazardous but do not involve hazardous substances (e.g. mineral extraction, high voltage transmission lines, radio masts, electrical substations). These should be controlled by other district plan provisions;
- dust explosions;
- gas and oil pipelines;
- fuel in motor vehicles, aircraft, boats and small appliances such as weed eaters, lawnmowers, chainsaws etc;
- the retail sale of petrol, up to a storage of 100,000 litres of petrol in underground storage tanks and up to 50,000 litres of diesel, provided that the “Code of Practice for the Design, Installation and Operation of Underground Petroleum Systems”, published by the Department of Labour - OSH, is adhered to;
- retail LPG outlets, with storage of up to 6 tonnes (single vessel storage) of LPG, provided that the Australian Standard (AS1596) for LP Gas Storage and Handling - Siting of LP Gas Automotive Retail Outlets is adhered to;
- the use, including the manufacture for use, of explosives (UN Class 1.1) in mineral extraction activity sites (or in quarries) provided that the provisions of the Health and Safety in Employment Act 1992 and the Explosives Act 1957 (or any substituted legislation) and all relevant regulations and Codes of Practice are complied with.

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