

# **HAZARDOUS WASTE MANAGEMENT**

*Second progress report on the Ministry for the  
Environment's Hazardous Waste Management  
Programme*

**April 2001**

## **Summary**

Three years have elapsed since the previous Minister for the Environment announced the establishment of, and provision of funding for, a 3-year Hazardous Waste Management Programme (PCE, 1998, p.12), but so far there are no signs that improvements in the management of hazardous waste have been achieved. Since the last progress report by the Parliamentary Commissioner for the Environment (PCE) in November 1999 (PCE, 1999), the original 3-year programme has been extended to 2005, its scope has been broadened, and the Government has allocated additional funding to it.

In the period December 1999 to April 2001, to which this review relates, reasonable progress has been made, even though the programme has had setbacks such as a significant turnover of staff. Aspects of the programme that have progressed include the development of a definition of 'hazardous waste' and associated database, and linking the programme with other initiatives, such as waste acceptance criteria for landfills and a proposed waste minimisation strategy.

Although the Hazardous Waste Management Programme has not brought about any significant changes so far, a clear objective and key milestones have been set for the programme over the next few years, enabling its progress and outcomes to be more easily monitored and assessed.

The PCE intends to continue reviewing developments in the Hazardous Waste Management Programme by assessing it against the PCE's effectiveness criteria (PCE, 1998, p.31) and, in later reviews, against the programme's own objective and milestones.

### **1.0 Introduction**

In May 1998 the PCE published a report on hazardous waste management (PCE, 1998) which, among other things, raised a number of concerns regarding deficiencies in New Zealand's system of managing hazardous waste. It also drew attention to the previous Government's commitment to, and funding for, a hazardous waste programme intended to improve the management of hazardous waste. In his 1998 report, the PCE established a process to regularly monitor progress and outcomes of the hazardous waste management programme being developed by the Ministry for the Environment, and to report his findings to the Local Government and Environment Select Committee. The first progress report by the PCE was completed in November 1999. This is the second report and covers the period December 1999 to April 2001. It reviews the hazardous waste management programme's progress and comments in particular on the following aspects:

- a Hazardous Waste Management Strategy
- a definition of 'hazardous waste'
- the New Zealand Hazardous Waste List and associated on-line database
- an issues and options paper on Waste Acceptance Criteria for Landfills
- the programme's revised timeframe.

This report concludes with a second interim assessment of the hazardous waste management programme against 'effectiveness criteria' identified in the PCE's 1998 report.

## **2.0 Background**

Since the hazardous waste management programme began in November 1997, the Ministry for the Environment has produced a number of discussion documents on options for managing hazardous waste. After analysing the submissions it received, the Ministry for the Environment identified the following as its priorities for 1999 onwards:

- running technical workshops and preparing an issues and options paper on a definition of 'hazardous waste' (completed in June 1999)
- drafting a definition of 'hazardous waste', setting up a pilot project to assess it, then carrying out further consultation before finalising the definition
- assessing the merits of the various mechanisms for managing hazardous waste
- linking landfill classification to the definition of hazardous waste (ie landfill acceptance criteria)
- developing a national hazardous waste strategy
- improving the management of liquid hazardous waste, trade waste and gaseous hazardous waste.

## **3.0 Hazardous Waste Management Programme – review of progress December 1999 to April 2001**

The Ministry for the Environment provides regular updates on the Hazardous Waste Management Programme in its regular *News Brief*, which the Ministry distributes by email to various stakeholders and interested parties. There have been four issues published so far – July and October 2000 and January and April 2001. The *News Brief* series provide a useful means of communicating and seeking feedback on hazardous waste management proposals that the Ministry is working on.

### ***3.1 Hazardous Waste Management Strategy***

A draft Hazardous Waste Management Strategy was initially intended for release for comment before the end of 2000. However, during that year the Minister for the Environment, in association with Local Government New Zealand, established a Waste Minimisation and Management Working Group to advise on the development of a National Waste Minimisation Strategy. This group published a discussion document: *Towards A National Waste Minimisation Strategy* in December 2000 (MfE, 2000). The discussion document covered four interconnected waste streams – solid waste, hazardous waste, industrial waste, and sewage sludge, biosolids and wastewater, effectively bringing hazardous waste within the scope of the proposed National Waste Minimisation Strategy (outlined on p.26 of the Working Group's report). Submissions on *Towards A National Waste Minimisation Strategy* are being analysed. The Ministry for the Environment expects to complete a National Waste

Minimisation Strategy by the end of December 2001<sup>1</sup>. This strategy will cover all waste, including hazardous waste, so the Ministry has decided not to develop a separate hazardous waste strategy.

### **3.2 Definition of 'hazardous waste'**

The lack of a legal definition of 'hazardous waste' in New Zealand has been identified in a number of reports as a major weakness of the system, resulting in a wide range of definitions being adopted and applied among local authorities. This lack of consistency is not only confusing and unnecessary, but it also makes the gathering of data and the monitoring of effectiveness of policies and plans difficult. A standardised definition has, therefore, been a key consideration in the Hazardous Waste Management Programme.

A draft definition of hazardous waste, initially proposed in the Ministry for the Environment's technical working paper (MfE, 1999), was further developed into the current working draft definition (see appendix A).

### **3.3 New Zealand [Hazardous] Waste List**

The Ministry has been developing and consulting on proposed categories of waste (W-Code), and a New Zealand Hazardous Waste List. The list consists of a table of hazardous wastes generated in New Zealand and includes a description of each type of waste known to exceed hazardous characteristics thresholds. Wastes are allocated an appropriate identification code (L-Code).

As a result of consultation on the New Zealand Hazardous Waste List, the Ministry decided to rename it the 'New Zealand Waste List'. This new list covers all waste (hazardous and non-hazardous) but highlights those wastes considered to be hazardous. The development of the New Zealand Waste List is consistent with changes to the European Waste Catalogue on which it is based.

The Ministry has established an internet-based system for people to access the New Zealand Waste List (<http://www.environment.govt.nz/NZWLOnline>). The Ministry is seeking feedback on both the usefulness and completeness of the list.

The New Zealand Waste List and the draft definition of hazardous waste are both to be used in a 3-month trial period in Marlborough starting in April 2001. This is to be done in conjunction with the Marlborough District Council. Further trials are planned in other parts of the country later in the year.

### **3.4 Landfill waste acceptance criteria**

Landfill waste acceptance criteria provide guidance on whether waste may be safely disposed of in a landfill. It is proposed that acceptability of waste for disposal at landfill will be based on the hazardous properties of the waste (and any controls placed on the disposal of hazardous substances determined by the Environmental Risk

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<sup>1</sup> In the Ministry's discussion paper: *Towards a National Waste Minimisation Strategy* (MfE, 2000, p.6), 30 June 2001 is the target date by which the working group is to complete its advice on the details of a National Waste Minimisation Strategy.

Management Authority), the suitability of the landfill to receive hazardous waste, and how sensitive the receiving environment is to potential contamination. Acceptability will not be based on whether the waste is avoidable, reducible, re-usable or recyclable. The latter issues are to be addressed through the National Waste Minimisation Strategy.

An issues and options paper on waste acceptance criteria for landfills was due to be circulated for comment in December 2000 but was delayed, pending approval by the Minister for the Environment, until the end of April 2001. Submissions on the Ministry's paper (MfE, 2001) close on 8 June 2001.

### ***3.5 Hazardous Waste Management Programme project plan and timeframe***

The Ministry for the Environment's Hazardous Waste Management Programme was initially estimated in 1997 to take 3 years to complete. As pointed out in the PCE's previous progress report (November 1999), the Ministry under-estimated the time needed to prepare discussion papers and to consult on them, and a significant turnover of staff working on the programme further hampered its progress.

The latest project plan for the programme has as its objective:

*'By 2005 develop and implement an integrated and cohesive national hazardous waste management policy which provides direction and leadership for the people regulating and managing hazardous waste'. (MfE's Hazardous Waste Management Programme Project Plan for 2001/02, April 2001)*

The Ministry has prepared a detailed annual operational budget and work plan up to 2004/05. The scope of the programme has been broadened to include, among other things, trials of the proposed management tools, further consultation on waste acceptance criteria for the disposal of hazardous waste at classes of landfills, and guidelines on waste water. The budget for the programme has also increased. The budget for the original 3-year project in 1997 was a total of about \$600,000. The revised project budget through to 2005 is currently \$450,000 per year.

Five major areas of work have been identified and costed in the Ministry's hazardous waste management programme project plan for 2001/02:

- developing and implementing hazardous waste management policy
- undertaking trials of, and online consultation with users on, the draft definition of hazardous waste and the New Zealand Waste List
- consulting on and developing the Landfill Waste Acceptance Criteria
- improving information on liquid wastes and their effects on the environment
- monitoring international conventions on hazardous waste and their implications for New Zealand.

Specific tasks for the Ministry's hazardous waste programme planned for 2001/02<sup>2</sup> are to:

- complete the Ministry's guidelines on hazardous waste management
- establish a list of priority hazardous wastes
- develop appropriate management controls for hazardous waste
- assess the level of regulatory control required (section 32 RMA analysis)
- extend the record keeping trial (using the New Zealand Waste List and hazardous waste definition) to Canterbury and Auckland/Waikato
- develop a record keeping and reporting system for hazardous waste
- finalise the New Zealand Waste List and begin development of the associated information database
- prepare and consult on a discussion document on landfill classification and acceptance criteria for waste with hazardous properties
- develop guidelines for monitoring waste water effluent
- prepare a report on waste water treatment facilities' performance based on the database prepared for the proposed community sewage subsidy scheme
- develop a waste water programme, which would include trade waste, and link it to the National Waste Minimisation Strategy
- prepare guidelines for community decision-making on waste water systems.

### **3.6 Other proposals**

The Ministry is planning to develop information material outlining the features and links between the Hazardous Substances and New Organisms Act 1996 and the Resource Management Act 1991 with respect to the management of hazardous substances when they become waste. An information brochure is due for release in June 2001 followed by training for councils in September 2001.

## **4.0 Conclusion**

The Hazardous Waste Management Programme has not achieved what it set out to do in 1997. At this stage, over 3 years after the programme was first announced, there is still no evidence of improved systems or outcomes, and we are unlikely to see any such evidence until 2005 or beyond. The extended programme includes further consultation and trials of proposed management systems. While these stages are important to ensure that hazardous waste management systems are effective and workable it is, nevertheless, disappointing that there is still no evidence of improvements having been made to the management of hazardous wastes in New Zealand.

Nevertheless, the programme has made reasonable progress in the period under review – December 1999 to April 2001. It is encouraging to note that the Ministry's resources and level of activity in the general area of waste management have

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<sup>2</sup> In a pre-budget announcement by the Government in May 2001, the Ministry for the Environment is to receive an additional \$6 million in the 2001/02 year plus a further \$2 million in the following year for a number of priority areas including 'developing a framework for waste management, including hazardous waste management, waste minimisation and waste data monitoring' (New Zealand Government press release, 9 May 2001).

improved in this period, and there is a commitment to funding the hazardous waste project through to completion in 2005 with an operating budget of around \$450,000 per year. The Ministry has clearly stated the overall objective of the programme and identified key milestones that it intends to achieve. These will be useful for measuring the programme's progress and outcomes.

The following table is an assessment of the programme so far, based on the effectiveness criteria identified in the PCE's 1998 report on hazardous waste management.

## References

Ministry for the Environment (MfE). 1999. *Towards a New Zealand Definition of Hazardous Waste*. MfE, Wellington.

Ministry for the Environment (MfE). 2000. *Towards a National Waste Minimisation Strategy*. MfE, Wellington.

Ministry for the Environment (MfE). 2001. *Landfill acceptance criteria for wastes with hazardous properties: Issues and Options*. MfE, Wellington.

Parliamentary Commissioner for the Environment (PCE). 1998. *Hazardous Waste Management*. PCE, Wellington

Parliamentary Commissioner for the Environment (PCE). 1999. *Hazardous Waste Management: Progress report on Ministry for the Environment's Hazardous Waste Programme*. PCE, Wellington

**Table 1 Second interim assessment of the effectiveness of the Hazardous Waste Management Programme up to April 2001**

Criteria	Assessment
<p>1 <i>The programme addresses the criticisms and recommendations on New Zealand's management of hazardous wastes outlined in the 1996 OECD Environmental Performance Review.</i></p>	<p>The proposals are consistent with the OECD recommendations.</p>
<p>2 <i>The programme addresses the hazardous waste monitoring problems identified in the National Waste Data Report and in the 1997 State of the Environment Report.</i></p>	<p>The development of the draft definition of hazardous waste and the proposals for a New Zealand Waste List are both significant steps towards improving the monitoring of hazardous waste.</p>
<p>3 <i>The programme is adequately resourced, and achieves its objectives and targets within its specified timeframe.</i></p>	<p>The programme's initial 3-year timetable developed in 1997 was an underestimate of the time and resources needed to complete it. The Ministry has revised and broadened its project plan and increased its budget with the intention of achieving the programme's objective by 2005. The adequacy of resources to meet the programme's latest objectives and targets in the time specified has yet to be determined.</p>
<p>4 <i>'Hazardous waste' is clearly defined and consistently used in hazardous waste management policies and plans.</i></p>	<p>A draft definition and associated categories of hazardous waste has been developed and are to be used in trials starting in April 2001.</p>
<p>5 <i>The statutory and other responsibilities of those who generate, transport, handle, treat or dispose of hazardous waste are clear and include matters outlined in the Government's waste management policy.</i></p>	<p>This may be clarified when work is completed on the legislative framework needed to give effect to hazardous waste management policies. This remains to be determined as the programme evolves.</p>

Criteria	Assessment
<p>6 Adequate incentives are established which encourage waste generators to reduce the amount of hazardous waste generated, to treat hazardous waste before disposal, and to reduce the environmental effects of disposal. Alternatively, suitable measures are introduced which act as disincentives to generate hazardous waste or to dispose of untreated hazardous waste.</p>	<p>The Hazardous Waste Management Programme is linked to the development of a National Waste Minimisation Strategy, which is due to be completed by the end of December 2001. The programme includes the development of landfill acceptance criteria for wastes with hazardous properties and the development of a landfill classification system, with lists of acceptable wastes corresponding to each landfill class. Policies relating to incentives, etc. have yet to be developed.</p>
<p>7 No gaps, or significant overlaps that cannot be effectively managed, exist in the roles and responsibilities of central and local government or other public authorities involved in the management of hazardous wastes.</p>	<p>This is still to be determined as the programme evolves.</p>
<p>8 Quantities, types, methods of disposal and environmental effects of hazardous wastes are monitored by territorial authorities and regional councils, in consultation with tangata whenua. Monitoring information is provided to, and coordinated at the national level by, the Ministry for the Environment (where appropriate, in conjunction with the Environmental Risk Management Authority in relation to waste hazardous substances).</p>	<p>This is still to be determined as the programme evolves.</p>
<p>9 Waste reduction and risk reduction targets for hazardous wastes are established by central government for matters of national significance, and local government for discharges to the environment and trade waste.</p>	<p>This is still to be determined as the programme evolves and the National Waste Minimisation Strategy is completed.</p>

## Appendix A

### Draft New Zealand Definition of Hazardous Waste

(source: Ministry for the Environment *News Brief*, April 2001)

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

<b>Waste Categories (W-Code)</b>
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*<sup>3</sup>, or
- Meets the definition for *radioactive material* included in the *Radiation Protection Act 1965* and *Regulations 1982*.<sup>4</sup>

<sup>3</sup> 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.

<sup>4</sup> 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.