

1. INTRODUCTION

1.1 Background

The management of hazardous waste is a growing concern world-wide. Proper waste management requires a systematic and coherent approach with an emphasis on prevention. To this end, the Waste Management Act, 1996 provides for the preparation of a National Hazardous Waste Management Plan by the Environmental Protection Agency. The Plan will be reviewed at least every 5 years.

In order to assist in the preparation of the Proposed Plan, a Strategy Study was commissioned to quantify the current position, examine trends and develop proposals with regard to hazardous waste management in Ireland. A study of hazardous waste statistics was carried out and the infrastructure (transport, recovery and disposal systems) examined. Hazardous waste management options were examined and these are discussed in this Plan. The approach and methodology developed for the project encompassed active involvement, at an early stage, of the major participants in the field of Irish hazardous waste management.

The hazardous waste management system that exists today evolved largely in response to EU hazardous waste legislation and policy and the market pressures that resulted. This has led indirectly to a hazardous waste management system that is availed of more by the larger hazardous waste generators and that is somewhat less availed of by smaller and more dispersed generators. The system is market dependent and waste arisings, such as hazardous wastes from small and medium enterprises, are often overlooked. This Plan includes recommendations for the management of hazardous waste from all sectors.

The approach in Ireland up to the mid-nineties was to manage hazardous waste mainly on an end of pipe recovery and disposal basis. Efforts were made to reduce solvent and other wastes over a longer period from the early 1980's and the main stimulus for the adoption of an integrated approach was the introduction of IPC licensing in 1994.

EU and Irish policy require that waste prevention and minimisation initiatives take precedence. This

is a focus of the Plan and is dealt with in detail in chapter 4.

1.2 How to read the Plan

This document includes an analysis of existing hazardous waste policy, legislation, statistics, collection, recovery and disposal practices.

The chapters of the document are as follows:

- Introduction; chapter 1
- Policy and legislation; chapter 2
- Hazardous waste statistics for 1996 and 1998; chapter 3
- Hazardous waste prevention; chapter 4
- Collection of hazardous waste; chapter 5
- Recovery and disposal of hazardous waste; chapter 6
- Hazardous waste disposal sites; chapter 7
- Conclusions; chapter 8
- Recommendations; chapter 9

Details of the existing recovery and disposal infrastructure is contained in chapter 6 while recommendations are set out in chapter 9.

1.3 Objectives of the Plan

The objectives of the Plan are set out in Box 1.1.

The primary objective of the National Hazardous Waste Management Plan is to prevent the production of hazardous waste and to minimise the effect of hazardous waste on the environment. The secondary objective is to manage hazardous waste which cannot be prevented in such a manner as to ensure that environmental pollution is minimised and not transferred from one environmental medium to another; in other words, to bring about a qualitative reduction in the quantity of hazardous waste requiring management.

Section 26 of the Act requires that the Agency make a National Hazardous Waste Management Plan with regard to:

- the prevention and minimisation of hazardous waste;

Box 1.1 Objectives of the NHWMP

- to describe and predict the type, quantity and origin of hazardous waste, its movement within, into and out of the country and facilities available for the collection, recovery and disposal of the waste.
- to specify objectives and, where appropriate, targets in relation to the prevention and minimisation of the production of hazardous waste, the minimisation of the harmful nature of such waste and the recovery or disposal of such waste.
- to provide for, as appropriate, the identification of sites at which waste disposal activities that to a significant extent involved hazardous waste have been carried on, the assessment of any risk of environmental pollution and the recommending of measures to prevent or limit such pollution and to identify remedial measures.
- to have regard to the need to give effect to the polluter pays principle.
- to have regard to the precautionary principle in relation to the potentially harmful effects of emissions and the risk of environmental pollution.
- to make recommendations, as respects the management of hazardous waste, regarding
 - priorities, measures and programmes which could be pursued,
 - infrastructure, facilities or other physical resources considered to be necessary,
 - the functions of any relevant public authorities.
- to specify policies which the Agency proposes to pursue.

- the recovery of hazardous waste;
- the collection and movement of hazardous waste; and
- the disposal of such hazardous waste as cannot be prevented or recovered.

These broad objectives provide for implementation of the waste hierarchy in the management of hazardous waste (see Figure 2.1) and emphasise the importance of waste prevention in ensuring sustainable development. The Act requires that the Plan develop these objectives. Section 26(2) of the Act sets out the full text of the objectives of the Plan and is reproduced in Appendix A of this document.

1.4 Public information and consultation

A further objective of the Plan is to improve public awareness of hazardous waste issues. At the most fundamental level, the general public and sectors of industry, particularly SME's, may be unaware of what is and is not hazardous waste. For example, many people may not realise that everyday items such as batteries, oil filters, fluorescent tubes and some leftover paint are hazardous waste. In addition, members of the public are largely unaware of the significance and polluting potential of hazardous waste and of their own contribution

to the total load. The recommendations made in this Plan will only be successful if implemented by industry, the commercial sector, the farming sector and members of the general public. Increasing public awareness is therefore central to achieving the objectives of the Plan.

Public consultation is considered an essential component of the preparation of the Plan. Consequently, the public and other interested parties have had a number of opportunities to make submissions and to comment on the content of the Proposed Plan. Figure 1.1 illustrates the public consultation programme. Further information on the public consultation programme may be found in Appendix C.

A public launch and press conference was held in Dublin on 16 July 1997. In addition, notices were placed in three national newspapers on 17 July 1997 seeking submissions from interested parties. Reminder notices were placed on 12 September 1997. In total, 37 submissions were received prior to publication of the Proposed Plan. A list of submissions made and a short summary of each is given in Appendix C.

A consultative conference was held on 20 May 1998 at which the consultants retained by the Agency

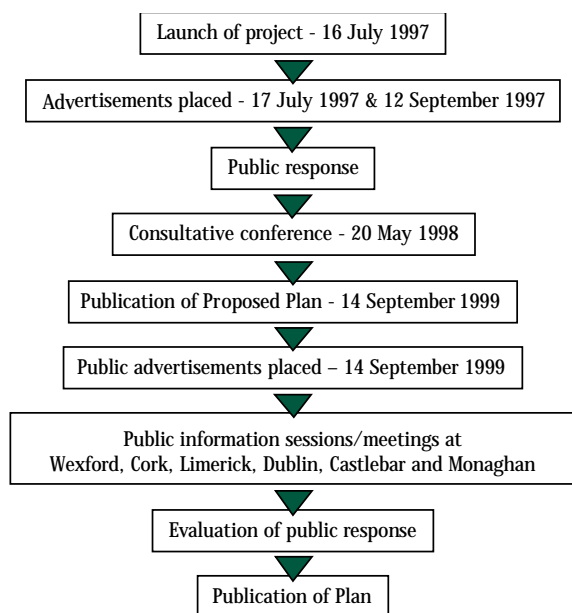


Figure 1.1 Public consultation programme

presented their findings and recommendations. Local and central government, industry, waste contractors, non-governmental organisations and individuals who made submissions were invited to attend this conference. The objective of the conference was to generate discussion and feedback on the consultants' draft report.

The Proposed National Hazardous Waste Management Plan was launched on 14 September 1999. A public consultation period then commenced and submissions were invited. Six public seminars were held in Wexford, Cork, Limerick, Dublin, Castlebar and Monaghan in order to inform the public, industry and local authorities and to obtain feedback. In total, 31 submissions were received by the EPA. A list of submissions made and a short summary of each is given in Appendix C.

Details of all public consultation events to date and lists of invitees are included in Appendix C.

1.5 Definition of hazardous waste

Hazardous waste is defined in section 4(2) of the Act. The flowchart in Figure 1.2 illustrates the methodology used in deciding whether a waste should be classified as hazardous waste. References to Categories I and II and Parts I, II and III and the

Second Schedule relate to the Act and are reproduced in full in Appendix B.

If any waste, not already mentioned in the hazardous waste list, displays one or more of the properties listed in Part III of the Second Schedule, it may be prescribed by regulation as a hazardous waste by the Minister for the Environment and Local Government. This is provided for under section 4(2)(a)(ii) of the Act.

In summary, in order to be classified as hazardous, a waste must:

- appear on the hazardous waste list *or* be prescribed under the Act; *and* also
- display one or more of the properties indicated in the Second Schedule to the Act.

The hazardous waste list is dynamic and is subject to change by Member States within their own jurisdictions or by the EU Commission. A new waste list has been published which will come into effect on 1 January 2002. The new list will replace the existing European Waste Catalogue (Commission Decision 94/3/EC) and hazardous waste list (Council Decision 94/904/EC). The new list comprises three documents; Commission Decision 2000/532/EC as amended by Commission Decisions 2001/118/EC and 2001/119/EC. Hazardous wastes are indicated on the new waste list by an asterisk.

To date Ireland has not used the provisions of Section 4(2)(a)(ii) of the Act to prescribe additions to the hazardous waste list. The Agency intends to establish a working group to consider the prescription of hazardous wastes in this context and where necessary, recommend the inclusion of particular streams as hazardous waste. This working group is expected to comprise representatives of the Department of the Environment and Local Government, local authorities, industry, business and the Agency. Other relevant sectors of industry and business and non-governmental organisations will be consulted where their interests may be affected.

In summary, the role of the working group is expected to be:

- to consider technical issues relating to the properties of certain waste streams;
- to evaluate, where relevant, prescriptions made by other Member States; and

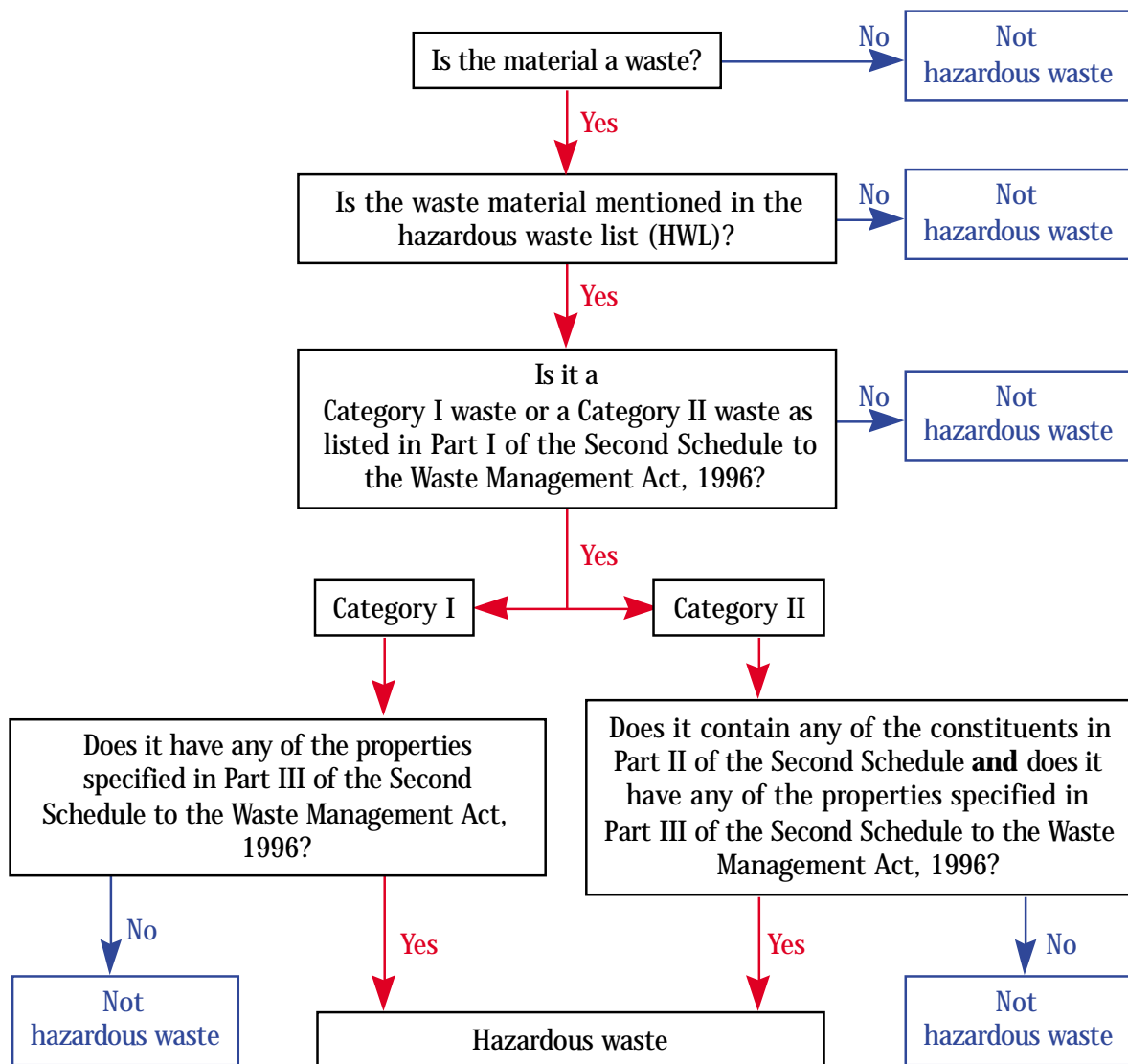


Figure 1.2 Hazardous waste flowchart

- to recommend to the Minister for the Environment and Local Government, as appropriate, the prescription of certain wastes as hazardous waste.

1.6 Other waste streams

The scope of the Plan is determined by the definition of hazardous waste in the Act. It has become evident from submissions made and from other sources that the classification of a number of waste streams causes some confusion. These are discussed below.

Specified risk material (SRM) arises from the meat processing industry and is comprised of certain prescribed parts of slaughtered animals. It is

separated from the animals after slaughter because of the risk of transmission of bovine spongiform encephalitis (BSE). SRM is not classified as hazardous waste (chapter 18 of the European Waste Catalogue (EWC)) and its management is provided for in legislation made by the Minister for Agriculture, Food and Rural Development. It is therefore outside the scope of this Plan and is not considered further.

Packaging waste is not currently classified as hazardous waste (chapter 15 of the EWC). Many of the submissions made to the Agency in the preparation of the Plan contained queries in relation to packaging contaminated with hazardous substances. The contamination of packaging waste by hazardous substances may require that the

packaging be handled as hazardous waste. The new waste list, which takes effect from 1 January 2002, includes a new classification: *packaging containing residues of or contaminated by dangerous substances*. In anticipation of this addition to the waste list and on the basis of the presence of dangerous substances, packaging waste contaminated by, or containing residues of, dangerous substances has been included in the scope of this Plan.

Components of household waste may be classified as hazardous waste when they are segregated and collected separately (chapter 20 of the EWC). Household hazardous waste is segregated and collected separately in some countries even though the hazardous waste directive (91/689/EC) has excluded 'domestic waste' from its scope. Anticipated amendments to the hazardous waste directive will remove this exclusion thus requiring the segregation and separate collection of household hazardous waste. In anticipation of this amendment, provisions for the management of household hazardous waste have been included in this Plan.

Healthcare risk waste incorporates those wastes "whose collection and disposal is subject to special requirements in view of the prevention of infection" (hazardous waste list code 18 01 03). Healthcare risk waste incorporates potentially infectious waste including used sharps. The new waste list, which takes effect from 1 January 2002, will bring additional categories of healthcare waste within the scope of the definition of hazardous waste: chemicals consisting of or containing dangerous substances, cytotoxic and cytostatic medicines and amalgam waste from dental care. An all-Ireland contract, managed by the Joint Waste Management Board of which representatives of the Department of Health and Children and the Department of Health and Social Services, Northern Ireland are members, has been established for the management of healthcare risk waste from participating health boards and non-health board funded healthcare establishments. Healthcare risk waste has been included in the scope of this Plan.

Contaminated soil is not currently classified as a hazardous waste. It is considered however that soil contaminated with oil or petroleum products

should be handled as a hazardous waste. The new waste list, which takes effect from 1 January 2002, will allow for the assessment of the hazardous nature of contaminated soil on the basis of the presence or not of dangerous substances. On that basis, contaminated soil has been included within the scope of this Plan.

Contaminated dredging spoil is not currently classified as a hazardous waste. The new waste list, which takes effect from 1 January 2002, will allow for the assessment of the hazardous nature of dredging spoil on the basis of the presence or not of dangerous substances. On that basis, contaminated dredging spoil has been included within the scope of this Plan from 1 January 2002.

Residues from the thermal treatment of waste include bottom ash and fly ash as well as flue gas cleaning residues. The classification of these waste types is set out in the hazardous waste list (chapter 19 01 00). The new waste list, which takes effect from 1 January 2002, will allow for the assessment of the hazardous nature of each of these waste types on the basis of the presence or not of dangerous substances. It should be noted that not all residues from the thermal treatment of waste are hazardous waste. However those residues that are considered to be hazardous waste have been included within the scope of this Plan.

