



Waste Legislation

WASTE LEGISLATION	1
1.0 INTRODUCTION	2
1.1 WASTE MANAGEMENT PLANS	5
2.0 WASTE REGULATION	9
2.1 CONTROL OF UNAUTHORISED WASTE MANAGEMENT ACTIVITIES AND LITTER	9
2.2 WHAT IS “WASTE”?	10
2.4 LEGISLATION AFFECTING WASTE MANAGEMENT ACTIVITIES AT THE SITE WHERE THE WASTE IS PRODUCED:	13
2.5 TRANSPORTING WASTE	20
2.6 WASTE LICENCES	31
2.7 WASTE PERMITS	34
2.9 WASTE BROKERS	37
2.10 INTEGRATED POLLUTION PREVENTION AND CONTROL (IPPC) LICENSING	38
3.0 OTHER LEGISLATION AFFECTING KEY WASTE STREAMS	40
3.1 PACKAGING WASTE, END OF LIFE VEHICLES AND WASTE FROM ELECTRICAL AND ELECTRONIC EQUIPMENT	40
3.2 ANIMAL BY-PRODUCTS	40
3.3 PLASTIC BAG LEVY	41
3.4 WASTE DISPOSAL INSTALLATIONS	42
3.5 THERMAL TREATMENT/ INCINERATION	45
3.6 FARM PLASTICS	46
4.0 FUTURE DEVELOPMENTS	48
4.1 THE BATTERIES DIRECTIVE	48
4.2 COMPOSTING	50
5.0 FURTHER INFORMATION	52
5.1 WHERE TO GET ADDITIONAL INFORMATION	52
5.2 LIST OF THE MAIN IRISH LEGISLATION AFFECTING WASTE MANAGEMENT	54
5.3 EU LEGISLATION RELEVANT TO WASTE MANAGEMENT IN IRELAND	56



1.0 INTRODUCTION

Ireland has experienced a dramatic change in its waste management practices in the last decade. Inadequate environmental standards at much of the landfill infrastructure have been addressed by new licensing controls. Waste disposal prices have increased significantly due to the imposition of higher standards, scarcity in the supply of replacement facilities and increasing waste volumes. These changes have also greatly increased the financial attractiveness of waste minimisation and recycling initiatives.

In comparison to some of the larger EU member states, Ireland's enactment of modern waste management controls commenced quite late. Since that time, there has been a significant catch-up process and now an extremely sophisticated system of regulation is in place. However, the system is still experiencing some difficulties and there is evidence that the legislation needs better enforcement in some areas. Recent and proposed new laws are also expected to better define environmentally acceptable waste management practices and to stimulate further waste reclamation initiatives.

This guide has been compiled to help industrialists to gain a ready understanding of what is now a complex area of law. It summarises the relevant provisions that affect the day-to-day management of wastes, as well as setting out the main elements of the long-term strategic framework for waste management in Ireland. Knowledge of both of these areas is increasingly important - not only for reasons to do with legal compliance. New policies and regulation initiatives are likely to place further restrictions on the use of disposal facilities such as landfill sites for the management of commercial and industrial waste. Mandatory recycling initiatives are also being rolled out. It is therefore becoming crucial that companies take a more long-term view of both national and regional trends and hence are better prepared to address them.



This waste guide concentrates mainly upon those areas of legislation which have the 1996 Waste Management Act as their statutory basis. However, where necessary, other areas of Irish and EU legislation will also be referenced.

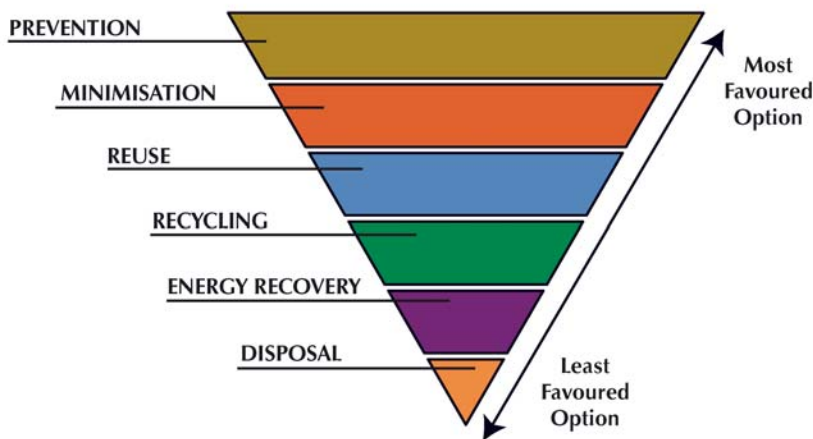
National Policy and Waste Management Planning:

At national level, the [Department of the Environment, Heritage and Local Government \(DoEHLG\)](#) has primary responsibility for waste policy and legislation. This is articulated mainly through the national laws, policy statements, the Department's funding of local authority waste management activities and also through its Race against Waste campaign and its control of the Environment Fund.

A significant proportion of national policy is governed by European Union (EU) initiatives. The most common form of EU environmental legislation – Directives – need to be “transposed” into Irish law by our own legislation. An example would be the EU definition of “waste”, which is reproduced in Section 4 of the Waste Management Act 1996. However, not all of Ireland's waste management legislation is in direct response to EU provisions. Examples of Irish-based initiatives are the landfill levy and plastic bag levy.

Currently, national waste management policy is contained in the following DoEHLG policy statements, (a) ["Waste Management Changing our Ways"](#)(pdf 728KB) – published in 1998, (b) ["Preventing and Recycling Waste: Delivering Change"](#) (pdf 1.31MB) published in 2002 and (c) ["Taking Stock and Moving Forward"](#) (pdf 737KB) published in 2004. These statements are grounded on the EU concept of a waste management hierarchy (Figure 1), whereby waste prevention and re-use are viewed as the most desirable options for managing wastes with the least desirable option considered being landfill. The overall intent of these policy statements is to move Irish waste management away from landfill into those options that feature in the upper echelons of the hierarchy.

Figure 1. Hierarchy of Waste Management



A focus of waste policy is on waste prevention and the National Waste Prevention Task Force and Programme operated by the DOEHLG and the Environmental Protection Agency (EPA) is co-ordinating a range of national initiatives in this area. In terms of the actual legislation, the Waste Management Act 1996 is the main vehicle by which this policy framework is enacted, through the provisions on waste collection, waste planning and via the detailed regulatory package. This Act was changed in 2001 by the Waste Management (Amendment) Act 2001. In summary, the 2001 Act contained new provisions to set up levies on landfill and plastic bags, as well as providing for a streamlined adoption process for waste management plans.

The Waste Management Act divides the responsibility for the regulation of waste in Ireland between the EPA and the local authorities. The 29 county councils and the five city councils undertake local authority regulation. They also have the main responsibility for the collection and disposal of household waste, as well as currently providing much of the landfill



infrastructure. Other bodies have a role in relation to some types of waste, e.g., [Repak Ltd's](#) involvement with packaging waste recovery.

It is important to realise that the Waste Management Act 1996 – as well as some of the associated regulations – has been amended a number of times. These amendments are necessary in order to address new EU environmental initiatives or to tighten up on some matters where problems have arisen. Their existence means that readers of the actual legislation will need to take care to ensure that they are in possession of the most up-to-date legislation possible.

1.1 Waste Management Plans

Waste planning is an important function of the Waste Management Act. Local authorities are responsible for non-hazardous waste planning while the EPA has responsibility for a national hazardous waste management plan.

Non-hazardous waste management plans:

Government policy encourages local authorities to jointly draw up waste management plans and 10 have been prepared regionally. Of the 29 county councils involved in this process, only counties Donegal, Kildare and Wicklow have not partaken in the regional planning approach.

Once it has been drafted, a waste management plan must be issued for public consultation prior to finalisation. Each plan has to be renewed at the end of a five-year cycle. In order to accommodate new developments in the local area, an existing waste management plan can be amended or reviewed within its lifespan.

The Waste Management Act outlines the main requirements on the drafting of waste management plans, with their actual structure and content being determined by the Waste Management (Planning) Regulations 1997. A major purpose of these regulations is to ensure that the different plans are comparable nationally.

In summary, a waste management plan must cover:

- Policies, objectives and priorities for waste management for the area of the plan;
- Data and forecasts of wastes arising in the locality;
- Information on waste disposal and recovery facilities;
- Details of waste management infrastructure which will be required in the planning period;
- Steps to be taken by the local authority to enforce the Waste Management Act;
- An identification and risk assessment of closed waste facilities.

The Waste Management (Amendment) Act 2001 changed the way in which waste plans are adopted by local authorities. If the elected members of a local authority refuse to adopt the plan or inappropriately change its contents – which has happened in the past due to the controversial nature of the waste issue in Ireland – the approval process passes to the county manager.

By the summer of 2002, all of the waste management plans for Ireland had been completed and adopted. Copies of the plans can be purchased from the constituent local authorities.

At present, there is no single, national, plan for non-hazardous waste for Ireland as a whole. Instead, the national picture must be derived from collectively reading the waste plans for the constituent local authorities' areas. However, the EPA periodically publishes national waste statistics, in the form of the National Waste Database Reports. These reports present the most up to date national information available on waste generation and management. They also report on waste management infrastructure and initiatives towards waste prevention and

recovery targets. The National Waste Database Reports help all stakeholders in waste management to make informed decisions and to fulfil national and EU reporting obligations. The most recent report was published in January 2007 reporting waste information for 2005.

Sludge Management Plans:

A significant number of local authorities have also produced separate management plans for sludge. While these plans concentrate on sewage sludge disposal from urban wastewater facilities, most cover the increasingly difficult issue of industrial sludge management. These plans have been developed by local authorities acting individually or by small regional groupings. Copies of the plans can be obtained from the relevant county councils.

National Hazardous Waste Plan:

The Waste Management Act requires the EPA to draw up a hazardous waste management plan for Ireland. The first National Hazardous Waste Plan was finalised and published by the EPA in 2001.

In summary, the following key priorities are set out in the National Hazardous Waste Plan:

- The establishment of the implementation committee for the Plan;
- The establishment of the hazardous waste prevention team;
- The elimination of unreported hazardous waste arisings;
- The identification and prioritisation of closed hazardous waste sites;
- The establishment of improved collection systems for hazardous waste generated by householders, by small businesses and by agricultural activities;
- The allocation of financial and technical assistance to address capacity deficits in national hazardous waste management infrastructure;



- The development of both hazardous waste landfill and incineration capacity;
- New public awareness initiatives on hazardous waste issues;
- The further development of a number of current initiatives, particular those which relate to “clean technology”.

The Waste Management Act requires local authorities to set out how the proposals in the hazardous waste management plan are to be implemented in their areas. However, as many of the local authority plans were finalised before the publication of the National Hazardous Waste Plan, a number contain limited information in this respect. An exception is the Waste Management Plan for the South East, which was adopted after the National Hazardous Waste Plan was finalised. The EPA is now reviewing the plan and the second National Hazardous Waste Plan is expected to be finalised in 2007.

Management Plan for Polychlorinated Biphenyls (PCBs):

The Waste Management (Hazardous Waste) Regulations 1998 require the EPA to draw up a plan for the management of polychlorinated biphenyls (PCBs). This is an obligation under the EU PCB Directive (96/59/EC) and the Plan was published in 2002. It sets out estimated quantities of PCBs in Ireland and the legislative requirements for their management.



2.0 WASTE REGULATION

2.1 Control of Unauthorised Waste Management Activities and Litter

The Waste Management Act makes the operation or “use” of an unauthorised waste management facility an offence. As outlined below, such facilities generally need a waste licence or waste permit in order to operate. In Ireland, the primary responsibility for the policing of unauthorised waste sites rests with the local authority where the facility is situated.

The Act forbids the handling, transportation, recovery or disposal of waste when it is done in a manner which causes environmental pollution. It also requires that, when waste is to be transferred, the waste passes to a body that falls within the legal concept of an “appropriate person”. Organisations that are covered by this definition include local authorities, holders of waste collection permits, waste permits and waste licences. While the nature of these terms is discussed later, it follows that the use of an unauthorised waste collector or waste management facility is an offence.

There is a duty to inform a local authority if there is any loss, spillage or accident involving non-hazardous waste that may cause environmental pollution to arise. Where hazardous waste is involved, both the local authority and the EPA must be informed.

In general, the penalties for the contravention of the Waste Management Act are €1900 or prison sentences of up to 12 months. However, more serious offences can be subject to fines up to €12.7 million and imprisonment of up to 10 years. High Court injunctions can be sought to cause the cessation of unauthorised waste management activities. Vehicles involved in illegal dumping can be confiscated.

As noted, both operators and users of unauthorised waste management facilities can be prosecuted under the legislation, as well as companies who use unauthorised waste collectors or send waste to illegal waste sites. In addition, directors and senior company managers can be held personally liable in the event that their organisation is involved in such crimes.

Besides the Waste Management Act, inappropriate waste management activities can be dealt with under other items of Irish environmental legislation. For example, persons who cause water pollution commit an offence under the Local Government (Water Pollution) Acts 1977 and 1990. The burning of waste may contravene the Air Pollution Act 1997. In some circumstances, an unauthorised waste activity may breach more than one statute. For example, while the burning of waste may contravene the Air Pollution Act, it may simultaneously breach the Waste Management Act as well.

The production of litter is an offence under the Litter Pollution Act 1997. This Act can be used in relation to inappropriate waste storage activities, where waste becomes a nuisance when left out for collection or where litter is created from the movement of un-netted skip vehicles. In general, fines of up to €1900 can be levied. However, on-the-spot fines of up to €125 can be issued by local authority litter wardens or by the Garda Síochána. Part IV of the Protection of the Environment Act 2003 amending the Litter Act strengthened provisions for litter control and increased the powers of local authorities to make general anti – litter byelaws.

2.2 What is “Waste”?

The Waste Management Act sets down the legal definition of “waste”. This is important as the regulations described in this document generally only affect the management of materials that

fall within this definition. It is therefore vital that this concept is understood. However, the issues can get complex in some cases, particularly in relation to spent materials that are potentially recoverable.

Waste is defined in law as something which a holder discards, intends to discard or is required to discard. The most important term in the legal definition is the word “discard”. While “discard” may usually mean “throwing something away”, in the Waste Management Act it has a somewhat wider legal scope. This is because materials passing to recovery or recycling fall within the legal definition of waste. The legislation views such substances as “discarded” when consigned for these purposes. This general rule may apply even if there is a market for these materials and that they may have some intrinsic value.

The result is a broad definition of waste which will include many scrap materials, such as old metal or a worn out motor vehicle sent for dismantling, waste paper or plastic, timber and so on. The definition also means that materials such as soils, used bricks or broken up concrete may fall within the definition of waste if they are removed from a construction site and taken elsewhere for disposal or recovery. This is an important point, and some of the regulations set out later in this guide will apply to the management of these materials.

Besides being discarded, for something to be a waste under national law, the material must be identifiable from the list set out in the First Schedule to the Waste Management Act or in the European Waste Catalogue (EWC). Virtually any substance can fall within the inventory of generic waste categories in the Schedule and hence it is not reproduced here. The EWC is a very lengthy directory of waste types, which has been developed as part of a European-wide attempt to produce a standard nomenclature system for wastes. It is also used in determining whether a substance falls within the definition of hazardous waste (discussed later). The EWC has been subject to a number of amendments since the initial list of wastes was produced. A copy of the EWC can be found on the [EPA's Website](#).

Although the legal definition of waste can involve complicated matters of legal interpretation, whether something falls within the definition is often obvious. Clearly items being sent to a

landfill or that have been flytipped is waste as they have been discarded. However, the definition can become more difficult in relation to wastes passing to recycling and particularly in any debate about whether a substance is a waste or a secondary raw material. This area is a problematic one for many EU member states and the European Court of Justice has provided clarification on this matter a number of times. Further judgments from the Court on this matter are expected, with the result that readers may on occasion need specialist legal advice on whether some secondary raw materials are defined as waste and hence subject to the control system set out below.

2.3 What is “Hazardous Waste”?

The term “hazardous waste” is also given a legal meaning in the Waste Management Act. This is outlined in conjunction with European law and the EU publication known as the “Hazardous Waste List”. This List was last changed on the 1st January 2002, being combined with the European Waste Catalogue (EWC). A copy can be obtained from the EPA’s web site.

In summary, for a substance to be a hazardous waste, the Waste Management Act requires that it must:

- Fall within the definition of waste as described previously in this guide;

- Feature on the Hazardous Waste List¹; and
- Exhibit certain hazardous properties (such as flammability or toxicity), which are listed in the Second Schedule to the Waste Management Act.

All of the three elements must be satisfied for a substance to be defined as a hazardous waste. Like the definition of general waste, the definition of hazardous waste can get complex. Hence it may be sometimes necessary to get clarification from a local authority, the EPA or a suitably qualified expert in this field. In some instances, only specialised chemical and toxicological testing of the waste in question will resolve the matter.

A hazardous waste classification tool is available on the EPA website to guide a holder of waste through the complex procedure for the identification of the hazardous components of waste

2.4 Legislation Affecting Waste Management Activities at the Site where the Waste is Produced

Hazardous Waste Storage and Record Keeping:

In order that the storage of significant quantities of hazardous waste is environmentally appropriate, this activity is controlled either by the EPA or by a local authority.

¹ Since the Hazardous Waste List and European Waste Catalogue have been combined, whether something is a possible hazardous waste is indicated by the waste type being accompanied by an asterisk. However, as discussed, the waste must still exhibit the hazardous properties set out in the relevant schedule to the Act.

The EPA Act (1992) was amended by the Protection of the Environment Act 2003. This Act transposed the Integrated Pollution Prevention and Control (IPPC) Directive into Irish law. All major industry in Ireland is now subject to this system of licensing. These licences are issued by the EPA and cover all aspects of an affected company's environmental performance, including on-site waste storage activities which have environmental implications. Upgrading of existing IPC license holders who are now covered by the IPPC Directive is due to be completed by the end of 2007. Copies of the IPC/IPPC licence for particular premises can be viewed on the EPA's web site.

For those smaller companies that do not require IPPC licences, the temporary storage of hazardous waste needs to be authorised by a local authority. This requirement applies where:

- The storage period is less than six months; and
- The quantities being stored at any one time exceed 25,000 litres of liquid waste or 40 m³ of non-liquid waste.

If these quantity limits are not exceeded, no such authorisation is needed.

Temporary hazardous waste storage in excess of the above quantities is duly authorised by a "registration", which is issued under the Waste Management (Permit) Regulations 1998 by a local authority. Those regulations also set out the procedures for applying for a registration. Once registered, a registration certificate is issued.

As noted, if the premises already holds an IPC/IPPC licence, the provisions on the registration of hazardous waste storage do not apply. Furthermore, if the storage period exceeds six months, the legislation requires that this activity is instead subject to a waste licence (waste licences are discussed later).

The Waste Management (Hazardous Waste) Regulations 1998 place duties on hazardous waste producers to keep specified records of any hazardous waste arising from the premises. These records must set out:

- The quantity, nature and origin of waste produced;
- Any treatment carried out;
- The quantity, nature, destination, frequency of collection and mode of transport of any hazardous waste transferred to another person.

This information must be kept for at least three years. In practice, most of this information will be recorded on the C1 forms used to track hazardous waste movements. As discussed later, these forms have to be completed and retained by all parties involved in the transport of hazardous waste.

If a waste producer is subject to an IPC/IPPC licence issued by the EPA, additional records may need to be kept. The IPC/IPPC licence for the particular site will set out the requirements.

While temporarily stored at the place of production, the Waste Management (Hazardous Waste) Regulations require that containers of waste and other packaging must be properly labelled. Unless subject to local authority approval, the waste must not be mixed with other hazardous wastes or with non-hazardous waste at this location.

Asbestos, batteries, PCBs, oil and ozone depleting substances are also subject to certain additional provisions. These are summarised in the final section of this part of this guide.

Non-Hazardous Waste Storage and Record Keeping:

The temporary storage of non-hazardous waste at the premises where it is produced is generally exempt from needing any form of authorisation under the Waste Management Act.



However, to be exempt, the materials in question must not be allowed to linger on the site for more than six months. In the event that non-hazardous waste is to be stored for a period of time in excess of six months, the local authority will need to be approached to issue a waste permit to authorise this activity². In general, this requirement provides an incentive on a company not to store wastes on its premises for a prolonged period.

There is no general statutory requirement on smaller industrial activities in Ireland to keep records of waste quantities, where they have been moved to and by whom. However, it is prudent for every company to retain this information. It is also desirable that written contracts are obtained from providers of waste management services, including those handling recyclable materials. Periodic checks may also be necessary to ensure that waste is being handled correctly after it has left the premises of its production. All these measures help to protect a company from legal action that may occur if the waste is found dumped. It also decreases the possibility of negative publicity in the local or national press.

As was the case with hazardous wastes, industrial activities that have been issued with IPC/IPPC licences are not subject to any of the requirements relating to non-hazardous waste storage which have been just described. Instead, waste storage - and also record keeping - may be the subject of one or more conditions of the IPC/IPPC licence for the plant.

Asbestos:

Besides the provisions on hazardous waste storage, the Waste Management (Hazardous Waste) Regulations 1998 require that Best Available Techniques Not Entailing Excessive Cost (BATNEEC) are to be used to prevent or limit the production of asbestos waste. This applies mainly to companies handling more than 100 kgs of raw asbestos each year and involved in

² In the highly unlikely event that over 5,000 tonnes of non-hazardous waste is situated on the premises of production and is awaiting disposal, a waste licence is required for the storage activity.

the manufacture of asbestos products, such as asbestos cement, paper and board, asbestos floor coverings and fillers.

Health and safety legislation relating to the supply, use and stripping of asbestos products will also apply. Further information on these matters can be obtained from the Health and Safety Authority.

Batteries:

In general, most batteries are now defined as hazardous waste and are subject to the control system set out elsewhere in this document. In addition, certain types of batteries with significant mercury content are banned from being supplied in Ireland under the Waste Management (Hazardous Waste) Regulations 1998³. Subject to certain exclusions, this prohibition also applies to electrical appliances that are operated by batteries containing mercury above defined levels. Such appliances may not be marketed unless the battery can readily be removed. The appliance and any batteries supplied it with must be labelled in the manner set out in the regulations. The transposition of the Batteries Directive (2006/66/EC) into Irish law will supersede much of this legislation.

Polychlorinated Biphenyls:

The Waste Management (Hazardous Waste) Regulations 1998 set down obligations on all persons who hold PCBs, used PCBs or PCB-contaminated equipment. They also apply to other types of PCB derivative. The greatest effect will be on industrial users of the older types of electrical transformer.

These regulations require all holders of this equipment to ensure that it is decontaminated or disposed of as soon as possible. There is also a requirement to provide labelling at premises

³ As amended by the Waste Management (Hazardous Waste)(Amendment) Regulations 2000.

where any of the larger PCB-containing equipment remains in use. Both the equipment itself and the doors to the particular premises must be clearly labelled to indicate that PCBs are inside. This information is intended to alert the emergency services of the presence of these harmful materials.

The Waste Management (Hazardous Waste) Regulations mandate that transformers containing defined quantities of PCBs must be decontaminated. If they are to be put back into service, the replacement fluid must not make the transformer difficult to dispose of. After decontamination, the transformer must be labelled to that effect and in the manner set down in the regulations. The regulations require that the decontamination of all larger transformers is completed by the end of 2010.

The Waste Management (Hazardous Waste) Regulations also require that holders of equipment containing PCBs above stipulated levels must notify the EPA of the existence of the equipment. This must have first been done by 1 September 1998 and notification must be repeated annually thereafter. In 2002, the EPA introduced an annual fee for such notifications. The regulations ban the importation, production and supply of PCBs in Ireland. PCBs cannot be re-used nor can transformers be topped up with PCBs. Similarly, it is an offence to hold specified levels of PCBs or PCB-containing equipment that has not been notified to the EPA.

Waste Oils:

The Waste Management (Hazardous Waste) Regulations 1998 make the disposal of waste oils to waters or drainage systems an offence. It is also prohibited to mix them with PCBs or other wastes. The regulations impose particular requirements on persons who produce more than 500 litres of waste oils in a calendar year. Such individuals must keep information on the quantity, quality, origin and location of waste oils. When waste oils are to pass to another person, details of the date of transfer and the identity of the transferee must be maintained. This information must be kept for at least two years.



Ozone Depleting Substances:

EU Regulation 2037/2000 on Substances that deplete the Ozone Layer came into force in Ireland on a succession of dates, starting October 2000. The Irish legislation which implements this Regulation is The Control of Substances that Deplete the Ozone Layer Regulations 2006 (S.I. 281 OF 2006) which entered into force on the 1 June 2006 . The competent authority in Ireland for the implementation of the Regulation is the EPA. The Regulation contains a list of substances that damage the ozone layer – these are referred to as ozone depleting substances or controlled substances. Examples of controlled substances include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, 1, 1, 1, trichloroethane, carbon tetrachloride and methyl bromide. A full listing of controlled substances is listed in Annex 1 of the Directive.

Industrial areas where these controlled substances are most likely to be found include air conditioning and refrigeration, fire suppression systems, chemical/pharmaceutical industries, soil treatment and pest control.

Under the regulations the use of controlled substances (with few exceptions) in aerosols, as refrigerants and solvents are banned since the regulation came into force. The use of methyl bromide is banned since 31 Dec 2005. Exceptions exist – usually in the case of essential or critical use (as defined in the 1987 Montreal Protocol). What constitutes a critical or essential use is decided on by the EPA.

The Regulation also requires the introduction of systems for the recovery of ozone depleting substances (for the purposes of recycling, reclamation or ecologically acceptable destruction) contained in:

- Refrigeration and air conditioning equipment and heat pumps (including household refrigerators and freezers);
- Equipment containing solvents;
- Fire protection equipment and fire extinguishers.

Guidance Notes have been prepared by the EPA to help people or businesses involved in the handling of ozone depleting substances and are available on the EPA website.

Fluorescent Tubes:

In general, spent fluorescent tubes are defined as hazardous waste. Hence they must be subject to the storage and record keeping requirements set out above. In addition, they should also be segregated from other non-hazardous waste and consigned for specialist processing.

2.5 Transporting Waste

Waste Collection Permits:

A system for the formal authorisation of all commercial bodies involved in the collection of waste was initiated by the Waste Management (Collection Permit) Regulations 2001. November 30th 2001 was the main deadline for waste collectors to apply for a permit to authorise their waste collection activities. Unless an application had been made by the stipulated date, the legislation forbids a collector from transporting waste until such a permit has been issued.

Since the definition of waste is quite wide, the requirement for hauliers to obtain collection permits extends to companies handling construction and demolition waste, scrap metal, waste paper, cardboard, oils and other recyclable wastes, as well as items such as pallets and scrap computers. Hauling waste without a collection permit is an offence, as is passing waste to a person who is not duly authorised.



A waste collection permit only allows a waste carrier to collect waste within the area of jurisdiction of the issuing authority. In order to simplify the process and to prevent nation wide collectors requiring permits from every local authority in Ireland, the country has been divided

into ten areas. These areas are the same as those used for the drafting and implementation of waste management plans. One local authority within each of the areas has been designated as a “nominated authority”, having primary responsibility for the processing of collection permit applications and the granting of such permits for the area as a whole. Table 1 shows the nominated authorities and their functional areas.

Table 1. Waste Collection Permits – Nominated Authorities

Area of Ireland	Nominated Authority
South East (Carlow, Wexford, Kilkenny, Waterford City & County, Tipperary SR)	Kilkenny County Council
Cork (Cork City & County)	Cork County Council
North East (Cavan, Louth, Monaghan, Meath)	Meath County Council
South West (Clare, Limerick City & County, Kerry)	Limerick County Council
Connaught (Galway City and County, Mayo, Roscommon, Sligo, Leitrim)	Mayo County Council
Midlands (Offaly, Tipperary NR, Laois, Longford, West Meath)	Offaly County Council
Dublin Region (Dublin City, Fingal, South Dublin, Dun Laoghaire Rathdown)	Dublin City Council
Wicklow	Wicklow County Council
Donegal	Donegal County Council
Kildare	Kildare County Council



The main purpose of the waste collection permits is to prevent individuals who have been involved in unauthorised waste management activities from continuing to haul waste. Hence a permit application can be refused or a collection permit revoked in the event that a person has received convictions under the Waste Management Act. Once issued, collection permits are to be reviewed every two years by the nominated authority.

The requirement to possess a waste collection permit relates to any individual or organisation involved in the collection of waste for commercial reasons. Subject to one significant exception, it extends to producers of waste who themselves transport their own waste to disposal or recycling facilities. However, there is an exemption when the waste is to be transported by the producer in smaller, non-skip vehicles of less than 1 tonne gross axle weight. Hence the transportation by a waste producer of cardboard from a factory to a waste paper merchant in a light van would not, for example, require a waste collection permit.

The requirement to obtain a waste collection permit also embraces many contractors involved in the haulage of agricultural waste.

Local authority waste collection activities are not required to be authorised by waste collection permits. However, any private sector organisation contracted by a local authority to undertake waste collection on its behalf would need to obtain a waste collection permit in the normal way. There are also a small number of other miscellaneous exemptions. While many of these will only affect very specialised types of waste collection activity, it should be noted that authorised collectors of animal by-products are exempted from needing a waste collection permit when they transport this type of waste.

When issued, the waste collection permit is subject to a number of conditions. These may restrict the types of waste that can be handled, the places to which such waste may be delivered and they require records to be kept of each waste movement. It is therefore



important that any company wishing to engage the services of a waste contractor verifies two aspects of that individual's collection permit; whether a permit is in force for the area in which the waste is to be collected and whether the proposed waste movement is in accordance with any conditions contained in the permit. Local authorities may include as part of their permit conditions a requirement that waste collection companies ensure the segregation, treatment or recovery of all or part of the waste collected. Guidance on this matter issued by the DoEHLG recommends that local authorities make use of this tool in reviews of waste collection permits to meet targets for the recycling of specific waste streams.

Existing Waste Management (Collection Permit) Regulations are under review by the DoEHLG with input from the EPA – it is hoped a revised system will result in more transparency and lead to better enforcement.

It should be noted that Irish waste legislation refers to both “waste collection permits” and “waste permits”. As discussed, waste collection permits authorise the gathering of waste by the use of vehicles. Waste permits (will be addressed later in the text) legitimate the operation of waste infrastructure that is of insufficient size or environmental impact to warrant a waste licence. Although these concepts are quite different, the similarity in their names has the potential to cause confusion.

Moving Hazardous Waste within Ireland

All carriers of hazardous waste must obtain waste collection permits in the manner set out above. In addition, the movement of hazardous waste within Ireland is controlled by the Waste Management (Movement of Hazardous Waste) Regulations 1998. The primary purpose of this legislation is to allow a local authority to track the transportation of hazardous waste from its source to the waste management facility to be used for disposal or reclamation. This ensures that these dangerous materials are managed safely and end up at an appropriate and properly

authorised waste facility. Moving hazardous waste contrary to these requirements is an offence.

This tracking process is centred on the use of a consignment note, known as a “C1 form”. The completion of this document by each party in a waste transaction means that any hazardous waste movement can be traced back to where it came from.

Although the law requires most movements of hazardous wastes to be subject to C1 forms, there are some exceptions. These are set out in the Waste Management (Movement of Hazardous Waste) Regulations, which have been supplemented by a part of the Waste Management (Collection Permit) Regulations 2001.

The result is that the following exemptions now apply in relation to C1 forms:

- Authorised movements of hazardous wastes, when such materials are to be exported from Ireland to other countries;
- The transfer of waste oil;
- Hazardous waste collected from either bring centres or by segregated collection services provided to members of the public.

A further exception from using a C1 form relates to the movement of end of life vehicles. Since the start of 2002, end of life vehicles have become classified as hazardous waste due to their petrol, oil, brake fluid and battery acid content. This change was made at EU level when the European Waste Catalogue and Hazardous Waste List was amended (the Catalogue and List are discussed in the section dealing with the hazardous waste definition). Due to the practical difficulties in applying the C1 form system to movements of end of life vehicles, such forms are not required for this type of transaction.

The C1 form is obtained from the local authority where the hazardous waste originated. Each form is uniquely numbered. It is made up of five differently coloured identical pages, with each page being sub-divided into three parts (A, B & C). A carbon copy system ensures that entries made on the uppermost page are reproduced on the other pages.

The C1 form must be completed in the manner set out in the legislation. In summary, the waste producer must complete Part A of all five copies of the form before a load of hazardous waste is given to a carrier. On accepting the consignment, the carrier then completes Part B on the five copies, and this is witnessed by the producer. The producer keeps a copy of the completed form and the carrier retains the remaining four copies.

The carrier must keep the four copies of the C1 form with the hazardous waste while it is in transit. When the waste arrives at its destination, the disposer or recoverer - termed the "consignee" in the legislation - verifies if the load is acceptable and then completes Part C on the four copies. One copy of the form is then given to the carrier and the consignee keeps a copy. The other two copies are sent to the local authority where the waste originated and to the local authority responsible for the consignee.

The Waste Management (Movement of Hazardous Waste) Regulations also set down procedures which apply where a load is transported by the waste producer rather than by a third party waste carrier. Provision has also been made in the event that the waste is rejected by the consignee as being unsuitable.

Each party to a transaction of hazardous waste must retain copies of the C1 form. Waste producers and collectors need to keep copies of the completed forms for at least five years.

As well as keeping records of hazardous waste movements, producers of this type of waste are required by the Waste Management (Movement of Hazardous Waste) Regulations to ensure that they obtain documentary evidence that each consignment has in fact reached its

destination. Hence there is a duty on them to make relevant enquiries if nothing has been heard about the shipment. However, usually the waste haulier or consignee will be in contact, confirming that the waste has reached its destination. This documentary proof also needs to be retained for five years.

In all cases, the legislation mandates that any requirements on the labelling of hazardous waste consignments must be followed.

Local authorities and the EPA may request to see completed C1 forms to ensure that hazardous waste has been dealt with properly. The Waste Management (Movement of Hazardous Waste) Regulations also allow a local authority or the EPA to require a producer, carrier or consignee of hazardous waste to contribute to any regulatory costs incurred. This could include paying for site visits and having any waste chemically analysed.

Finally, the Waste Management (Hazardous Waste) Regulations 1998 require that no asbestos fibres or dust is emitted by any person involved in the transportation of asbestos wastes.

Moving Waste from Ireland to Another EU State

Movement of wastes from Ireland to other countries is a complicated process and in general, such shipments are undertaken by a small number of specialist firms. These organisations are experienced in the operation of the complicated paperwork system, in international long distance haulage and in the licensing requirements of the waste infrastructure that is to be used.

The legal requirements on moving waste from Ireland are set out not only in the Waste Management (Transfrontier Shipment of Waste) Regulations 1998. Most of the detailed

procedures are contained in an EU Regulation – Council Regulation No 259/93 of 1 February 1993 on the Supervision and Control of Shipments of Waste within, into and out of the European Community. Some wastes are more strictly controlled than others. The regulations classify waste as belonging to either green, amber or red lists. The red list covers particularly dangerous wastes. Like the provisions controlling hazardous waste movements within Ireland, this legislation also mandates the use of a consignment note tracking system. However, it has been noted that the system is much more complicated.

This EU Regulation is referred to as “Regulation 259/93”. It is important to realise that Regulation 259/93 has been amended a number of times. Recent amendments mainly relate to the procedures for shipping wastes to non-EU states for recovery purposes. However, it is vital that readers wishing to explore this legislation are using the most up to date copies.

It is important to understand that Regulation 259/93’s detailed requirements for the completion of the paperwork for the tracking of waste consigned internationally apply to a wider range of substances than those defined in Irish law as “hazardous waste”. In particular, the procedures apply to any form of waste being sent from Ireland for disposal, as well as to hazardous wastes passing to recovery. In addition, a much less onerous tracking system is mandated for any type of non-hazardous waste sent abroad for recovery or recycling, including substances such as metal scrap, waste paper, plastic waste and so on. Readers should also be aware that Regulation 259/93 and the Waste Management (Transfrontier Shipment of Waste) Regulations apply as much to shipments to Northern Ireland as they do to other EU and non-EU countries.

The local authority – rather than the EPA – is the body with responsibility for this legislation in respect of the exportation of waste from Ireland.

In general, the legislation allows many EU countries to greatly limit the range of wastes that can be accepted from Ireland for disposal. For example, Britain restricts waste shipments for

disposal to only high temperature incineration. By contrast, shipments within the EU to recovery facilities are generally allowed – subject to the relevant procedures being followed.

While the export of waste from Ireland has traditionally mainly involved hazardous wastes, shortages in landfill space and deficits in recycling infrastructure within Ireland have meant that non-hazardous commercial and industrial waste is now being exported in increasing quantities. Much of this is consigned to Germany for incineration. Any organisation wishing to get involved in this type of transaction must need to fully understand the regulatory system. Companies wishing to engage the services of third parties to transport wastes to non-Irish destinations are urged to ensure that they are absolutely convinced of the legitimacy of both the organisation involved and also of what is proposed to happen to the waste.

(i) **Stage 1: Pre-notification.** A person who intends to export any waste for disposal to another member state must obtain permission to ship this material before moving it. Normally, this requirement also applies to all exports of hazardous waste for recovery.

The prior approval of all affected regulatory bodies is needed to ensure that the waste is not inappropriately dealt with when it arrives or has somehow gone astray in transit. This approval must be obtained from:

- The Irish local authority covering the premises from which the waste is to be sent;
- The regulatory body in the country of destination;
- The regulatory body in any country through which the waste will pass.

Prior approval is accomplished by applying for the formal consent of all regulatory parties in the affected countries. This can be for a single shipment or for a “general notification” for a specified number of shipments. This is done using the ***transfrontier waste shipment form***, which comprises a two-part document. The first part is the Notification Form, which must be



completed well before the waste is to be moved. This sets out the advance consent of the affected EU member states. The second part is a Movement/Tracking Form, which accompanies the shipment when it is moved. Copies of the form must be obtained from the

Irish local authority responsible for the premises from which the waste is being consigned. Each form is uniquely numbered for complete traceability.

When completed, the Notification Form will provide all the necessary information on the shipment, including details of the entire transaction. Additional information may be included in annexes to the Form, including particulars of the hauliers to be used and any chemical analyses of the waste.

A proposed shipment to a disposal facility is enacted by completing the required part of the transfrontier waste shipment form and forwarding this document to the regulatory authorities of the country of destination. This must be done well in advance of the intended date of shipment: Regulation 259/93 sets down the required time period. Copies of the form are sent to any transit state. Once the form has been processed, the consent of each country is indicated. This consent is valid for a maximum period of one year.

If the shipment has been subject to regulatory approval, a financial guarantee must be raised. This guarantee ensures that the waste will be returned without public expense if the shipment is aborted. It must be approved by the local authority in the manner set out in the Waste Management (Transfrontier Shipment of Waste) Regulations 1998. A written contract must also be drawn up between the waste contractor involved and the intended destination of the waste.

(ii) Stage 2: Moving the waste. The purpose of the second part of the transfrontier waste shipment document - the Movement/Tracking Form - is to provide information on the actual

movement of each load. It must be completed to give details of the haulier being used, the date of shipment, the quantity and the exact analysis and classification of the waste. All regulatory bodies involved in the transaction are informed by being sent a photocopy of this document after the waste has been collected.

When the waste reaches its destination, the Movement/Tracking Form must be signed by the haulier and the recipient. Photocopies are sent to the affected regulatory bodies telling them that the waste has arrived. When the waste has been processed, the final parts of the Form are completed, including the Certificate of Disposal/Recovery. Copies are again sent to the regulatory authorities, so that they can see that the waste has been disposed of or recovered.

Shipments into Ireland and to Non-EU Countries:

Shipments of waste into Ireland are also subject to these provisions. Rather than one of the Irish local authorities, it is the EPA that oversees this type of movement. Since there are very few shipments, the exact requirements of the legislation will not be reviewed here. The Waste Management (Transfrontier Shipment of Waste) Regulations and EU Regulation 259/93 also control waste shipments from Ireland to non-EU member states. Generally, shipments to disposal facilities outside the EU are banned under international conventions. The legislation also allows many non-EU states to ban or greatly restrict hazardous waste movements to recovery facilities. Because the nature of the restrictions is specific to each country and is subject to change, readers will need to consult up-to-date versions of the relevant legislation for details. If necessary, enquires should also be made to the Department of the Environment Heritage and Local Government.

International Movements of Non-Hazardous Waste to Recovery Facilities:

While the provisions described above embrace transactions of hazardous waste to recovery

facilities, non-hazardous waste passing internationally to recovery⁴ is also subject to this legislation. The affected wastes are those which are on Regulation 259/93's "Green List".

They include materials such as scrap metal, waste paper etc. While there is no need to inform the regulatory authorities about the movement of Green List wastes using the transfrontier shipment document discussed above, Green list shipments must be accompanied by the written information required by the Regulation. Often this information is already set out in the relevant transportation documents.

As the Green List has been subject to a number of changes and many non-EU countries can elect to ban this type of shipment, readers are again urged to make sure that they have the most up to date copies of the legislation and/or to obtain specialist advice.

The Transfrontier Shipment of Waste Regulation 259/93 has been revised and the new Regulation will come into force later in 2007. Additional information is available on the European Union waste shipments webpage.

2.6 Waste Licences

A waste licence is a single integrated licence which deals with emissions to all environmental media as well as the environmental management of a facility. The legislation governing the processing of waste licence applications is contained in the Waste Management Act 1996 which was amended by the Protection of the Environment Act 2003. Once granted, a waste licence defines the nature of environmentally acceptable waste management activities at a waste facility. This is done by the conditions of the licence. The EPA issues waste licences.

⁴ As noted earlier, the movement of both hazardous and non-hazardous waste to a disposal facility is subject to the full notification procedures set out in the previous sections

The waste licensing system is designed to ensure that the licensee deals with any long-term environmental liabilities. Hence waste licences cannot be surrendered or transferred without the approval of the EPA. The Waste Management Act also stipulates that a licence cannot be changed unless the agreement of the EPA has been obtained in light of an application for a waste licence review.

In addition, the legislation requires that no new waste management facility can start operating unless it has been fully licensed by the EPA.

In summary – and subject to some exceptions - the following types of activity require waste licences:

- All landfills
- Non-hazardous waste incinerators of greater than one tonne per hour capacity;
- Hazardous waste incinerators;
- Other hazardous waste disposal and recovery facilities⁵;
- Large composting facilities;
- All waste disposal facilities operated by local authorities;
- Other significant local authority waste recovery activities;
- Private sector-based disposal facilities, such as skip waste transfer stations, where the intake exceeds 5,000 tonnes per annum.

A full list of activities that require a waste licence are outlined in the Third and Fourth Schedules of The Waste Management Acts, 1996 to 2005

⁵ Excepting facilities which accept waste containing mercury or its compounds, such as from fluorescent tubes, light bulbs and other electric lamps, as well as scrap yards and motor vehicle dismantlers – these facilities are instead subject to waste permits

It must be noted however that larger industrial activities in Ireland which require IPPC licences are outside the scope of the waste licensing system that pertains to the waste industry through the Waste Management Act. For example an incinerator at a large chemical plant would not require a waste licence and is bound by the conditions of the IPPC licence for that plant.

The Waste Management (Licensing) Regulations also allow for the licensing of a mobile waste management plant that can move from location to location.

The procedures by which a waste licence application is made are contained in the relevant parts of the Waste Management Act and also in the Waste Management (Licensing) Regulations 2004. Most applications for larger types of waste facility will also require an environmental impact statement to be drafted and submitted.

The Waste Management Act sets down strict criteria by which the EPA is to judge a licence application. The legislation makes clear that an application should be refused if these criteria are not met. Most criteria relate to possible environmental impacts, but an application also may be refused if the applicant has received convictions under the Waste Management Act for illicit waste management activities. Waste licences held by private operators can be suspended or revoked by the EPA without recourse to the courts.

All waste licences contain a large number of conditions that define the environmentally acceptable nature of the operation of the facility. These conditions will include restrictions on hours of opening and on acceptable waste types. For landfill operations a waste licence usually requires the installation of systems to facilitate the collection and recovery or flaring of landfill gas.

All persons wishing to use a licensed facility for the management of their wastes should verify that the facility is correctly licensed to receive the material. Copies of waste licences can be viewed and downloaded from the EPA's website. Virtually all other information available on

the site's environmental performance and licence compliance is publicly available at the EPA's headquarters in Wexford and at its regional offices. Users of waste management facilities may also find it prudent to visit them periodically, in order to check that they are being operated correctly.

When the conditions of a waste licence need changing, a licensee must request the EPA for a licence review to be held. Any licensee wanting to apply for a licence review must contact the EPA for advice on the content and scope of the application. In the light of that advice, the application can then be drafted. Once received by the EPA, the application proceeds under an essentially similar system to that governing an application for a new waste licence.

The EPA can also require that a licence is reviewed. The Waste Management (Licensing) Regulations mandate the EPA to review waste licences authorising discharges to groundwater at least every four years. This requirement will apply to most landfills in Ireland.

2.7 Waste Permits

Certain types of waste management facility do not require a waste licence. Instead they are subject to a waste permit or to a registration, both of which are issued under the Waste Management (Permit) Regulations 1998.

A local authority rather than the EPA is the body that issues waste permits. As noted earlier, waste permits are quite different to waste collection permits. Waste collection permits authorise the haulage of wastes on roads. By contrast, waste permits authorise what are often smaller or lower environmental impact waste facilities.

The following activities are subject to waste permits:

- Small waste incinerators that do not take hazardous waste and which have a capacity of less than one tonne per hour;



- Scrap metal recovery and motor vehicle dismantling activities;
- Recovery processes for waste that involves mercury or its compounds (eg lamp crushers);
- The recovery of non-hazardous waste, with the exception of any composting plant that handles more than 1000 m³ of compost at any one time;
- Transfer stations and other non-hazardous waste disposal facilities where the annual waste intake does not exceed 5,000 tonnes per annum.

It should be noted that quite large recovery facilities could be subject to waste permits. In addition, the Waste Management Act defines the nature of a waste recovery activity quite widely. For example, it can include treating waste on land with a view to making agricultural improvements. Hence waste permits have been issued for the infilling of quarries to raise the height of the land with construction and demolition wastes. However, the legislation states that all landfill sites require a waste licence.

With some exceptions, waste permits generally only apply to facilities that do not deal with hazardous waste. For example, facilities that accept mercury and its compounds can be subject to waste permits. Hence processors of scrap fluorescent tubes are often subject to this regime. Similarly, scrap yards and motor vehicle dismantlers are authorised by waste permits, despite such facilities handling hazardous wastes such as oils, batteries, petrol residues and so on.

The Waste Management (Permit) Regulations set down how a waste permit is applied for, the application determination period, how the application should be advertised and so on. Like the system for determining waste licences, the regulations contain criteria against which an application is judged and indicate the type of conditions that should feature in a waste permit.

As was stressed previously in the context of waste licences, it is important that companies using a facility claiming to be subject to a waste permit verify it's credentials. This can be done by obtaining a copy of the permit and by contacting the local authority in which it is situated.

A major review of the current waste permit application system is expected soon. At present there is no stipulation on permit holders directing firms on where they should take their waste. There are proposals in place planning to make it a legal requirement that non recyclable waste collected by private firms is directed to facilities higher in the waste hierarchy than landfill eg thermal treatment. These proposals could result in significant cost implications for waste companies and may be subject to legal challenges.

2.8 Exclusions from Licences, Waste Permits and Registrations

Certain waste activities are excluded from all of the provisions of the Waste Management Act. Often this is to prevent overlaps occurring with other elements of Irish environmental law. In addition, some types of waste management activity are excluded from certain facets of the Act, such as the requirement to hold a waste licence.

The following activities are totally excluded from the Waste Management Act:

- Atmospheric emissions, unless they stem from waste facilities;
- Sewage and sewage effluent, with the exception of sludge from sewage treatment;
- Effluent treatment and its discharge to waters, unless from waste facilities;
- Dumping of waste at sea;
- Radioactive substances.

Exclusions from waste licensing include:

- Waste management activities at industrial facilities which are themselves subject to IPPC licences;
- Household waste managed within the site of a domestic dwelling;



- Litter placed in litter bins;
- Waste transfers for legitimate disposal or recovery⁶;
- Animal-by product disposal;
- Sewage sludge recovery;

Naturally, if a substance does not fall within the legal definition of “waste” it is not generally subject to the Waste Management Act. This is why understanding the definition of “waste” is so important.

Instead of being required to have waste permits or waste licences, a small number of minor waste management facilities are subject to registrations. With the exception for the on-site storage of hazardous waste (see earlier), these activities relate only to two types of waste management activity undertaken by local authorities:

- Facilities where less than 5000 tonnes of waste is recovered;
- Sites where no more than 1000 tonnes of compost is held.

In practice, most of these facilities will be bring centres, bottle banks and other similar infrastructure provided by a local authority. In these instances, the registration authority is the EPA, which also issues registration certificates.

2.9 Waste Brokers

Many waste management companies will be subject to licences or waste permits for the waste processing activities they carry out. However, small numbers of commercial organisations acts solely as brokers and do not actually handle any waste themselves.

⁶ note that this is an exclusion from the need to obtain a waste licence or waste permit for this activity. It does not exclude an operator from the need to obtain a waste collection permit.



The Waste Management (Collection Permit) Regulations 2001 require that any waste “broker or dealer” must notify its existence to the local authority covering their principal place of business. Such an organisation must also keep records of:

- the types and quantities of waste dealt with,
- its origin and destination,
- the treatment, disposal and recovery activities utilised, and
- the persons who collected the waste on its behalf.

These records must be maintained for no less than five years.

2.10 Integrated Pollution Prevention and Control (IPPC) Licensing

The IPPC Directive was transposed into Irish law via the Protection of the Environment Act 2003. IPPC licensing is a licensing system for large scale activities in the industrial and agricultural sectors.

An IPPC licence is a single, integrated licence dealing with emissions to all environmental media from an activity, as well as the environmental management of the facility where the activity occurs. IPPC licences are issued by the EPA.

The IPPC licensing process is based on the Best Available Technology (BAT) principle and not on BATNEEC (Best available technology not exceeding excessive cost) as is the case with the existing IPC licensing system. The updating of existing IPC licences for activities which now fall within the scope of the IPPC Directive is to be completed by October 2007. A list of specified industrial activities which are subject to the IPPC licensing are listed in the schedule to the EPA Acts 1992 and 2003. This list was extended by ministerial order in 2006. A person must obtain an IPPC licence for a scheduled activity before commencing a new activity.



The application process and associated issues are not discussed here but information and guidance are available on the EPA website .

One of the key issues for industrialists under the IPPC licensing system is deciding on what constitutes BAT and how it is interpreted for specific existing installations. The capital investment to meet BAT requirements is of concern. A number of guidance documents – BAT reference documents (BREFs) have been issued by the European IPPC Bureau. BREFs identify BAT in a general sense for a specific sector – they are not prescriptive. A list of all current BREFs is available on the EPA website.

3.0 OTHER LEGISLATION AFFECTING KEY WASTE STREAMS

3.1 Packaging Waste, End of Life Vehicles and Waste from Electrical and Electronic Equipment

The following waste types are products focused legislation aiming to tackle the environmental impacts of specific products e.g. packaging, vehicles and electronics:-

- Packaging Waste
- End of Life Vehicles
- Waste from Electrical and Electronic Equipment

See the [Reducing the Environmental Impact of Products Guide](#) for information on this legislation

3.2 Animal By-Products

Animal by-products can pose risks to animal and human health if not properly disposed of. Recent animal by-products legislation aims to control these risks.

See the [Animal By-Products Guide](#) for information on this legislation.

3.3 Plastic Bag Levy

In order to discourage the use of single trip plastic bags, a levy on these items was introduced on 4 March 2002. The working of this levy is governed by the Waste Management (Environmental Levy)(Plastic Bag) Regulations 2001.

The levy is collected at the point of sale of consumer goods. Hence any retailer who passes plastic bags to customers in Ireland has to collect the amounts due. In a similar manner to VAT, a return is made to the Revenue Commissioners. For 2002, the levy was set at 15 cent per bag.

Re-usable bags sold by retailers are exempt from the levy if they cost in excess of 70 cent each. In addition, there are certain exemptions in relation to bags which have to be issued for food hygiene reasons, such as for non-prepacked fresh meat, loose vegetables, fruit etc.

Retailers who fail to comply with the relevant regulations may be subject to either the sanctions set out in the Waste Management Act or the more significant penalties which apply also to non-payment of income tax or VAT. Unpaid levy can also be recovered and subject to interest charges.

Since it was introduced, the levy has greatly reduced the numbers of plastic bags in circulation. These have been substituted by more durable multi-trip bags and by bags made of other materials such as paper. It has been estimated that the use of disposable plastic shopping bags has been reduced by approximately 90%. Prior to its introduction, in the region of 1.2 billion disposable plastic bags were given away free by retailers.

Funds accrued by the plastic bag levy pass to a national Environment Fund, where they are distributed as grants to pay for a range of waste management initiatives, including the enhanced enforcement of existing litter laws, waste recovery subsidies and environmental education. To date the levy has raised €75 million. €18.8 million was remitted by the Revenue Commissioners in 2006.

Prior to the introduction of the levy, the per capita usage of plastic bags was estimated to be 328. The levy led to a reduction in per capita usage to 21 bags. In the interim time period however there has been an increase in plastic bag usage. CSO figures indicate that per capita usage rose to 30 bags in 2006. The plastic bag levy will increase to 22 cent from the 1st of July 2007. The aim of the increase is to reduce per capita usage to 2002 levels or lower.

3.4 Waste disposal Installations

Landfill

Use of Landfill Facilities:

The EU Directive on the Landfill of Waste (99/31/EC) mandates EU member states to significantly reduce their reliance on landfill as a waste management option over the period up to 2016. Using the national use of landfill in 1995 as a base, it sets down a final target and two interim targets for the landfill of biodegradable waste. These are:

- 75% of the 1995 usage rate by 2006;
- 50% of the 1995 usage rate by 2009;
- 35% of the 1995 usage rate by 2016.



In order to achieve these targets, each EU country must divert a very significant amount of biodegradable waste to other, non-landfill alternatives. Some EU states already meet these targets by such initiatives as intensive separate collection, composting, recycling and incineration. The [National Strategy on Biodegradable Waste](#) (pdf 1.66MB) launched in 2006 reaffirms the Landfill Directive targets and the move towards recycling and recovery.

For Ireland, the achievement of these targets will prove very challenging. The country has been historically highly reliant on the use of landfill. Whilst performance in terms of waste recycling and recovery is improving, we are generating ever increasing quantities of waste. Biodegradable municipal waste generation has increased by approximately 50% in the nine year period since 1995 – with 1.935 million tonnes of waste generated in 2004. The economic boom of recent years is the main causative factor.

Figure 2. Biodegradable Municipal Waste Generation and Management: 1995 to 2004 (source [EPA National Waste Report 2004](#) (pdf 2.22MB))

Year	Gross Quantity Available	Landfill	Recovered	Rate
1995	1,289,911	1,147,320	142,591	11.1%
2001	1,525,315	1,291,464	233,852	15.3%
2002	1,727,490	1,365,628	361,862	20.9%
2003	1,855,505	1,317,560	537,944	29.0%
2004	1,935,214	1,304,426	630,788	32.6%

How these targets are to be achieved in each local authority area is set out in each waste management plan. The implementation of waste management plans has accelerated since 2001. The extent of landfilling however remains greater than projected in the original suite of plans. There is therefore an urgent need to procure the necessary alternative waste treatment capacity which will facilitate diversion of waste from landfill over the coming decade.

The Landfill Directive also sets down standards for the operation of new and existing waste facilities. Certain substances are banned from being accepted at landfills, including liquid waste, infectious clinical waste, tyres etc. Any new landfill has to comply immediately.

Facilities which were in operation before July 2001 are required to meet the full requirements of the Directive between 2001 and 2009 and those that cannot comply by 2009 will have to close.

Finally, the Directive also mandates that waste passing to a landfill opened after July 2001 must be pre-treated, by sorting and other processing operations. This matter needs to be addressed by a very significant investment in new intermediate waste handling processes, such as materials reclamation facilities.

Landfill Levy

A landfill levy was introduced in Ireland on 1 June 2002 by the Waste Management (Landfill Levy) Regulations 2002. The bodies with responsibility for the collection of the levy are the local authorities.

For 2002, the levy was set at €15 per tonne of waste landfilled. The landfill levy applies to all types of waste passing to disposal in landfill sites. This includes inert wastes from the

construction sector. However, there are certain exemptions for the use of construction wastes for site engineering purposes, such as landfill capping and cover.

The levy both applies to licensed and unauthorised landfill sites. Hence unpaid landfill levy can be recouped from users of unauthorised facilities. The levy does not, however, apply to facilities that are subject to waste permits, including those involving the deposit of construction wastes for land reclamation purposes.

Like the plastic bag levy, revenues from the landfill levy are placed into the Environment Fund for redistribution as grants and subsidies. The amount of the revenue is presently a relatively small proportion of landfill gate fees, which are now reaching up to €250 per tonne.

3.5 Thermal Treatment/ Incineration

Thermal treatment is a generic term used to cover all processes that use heat to treat waste. Most of these processes are commonly referred to as incineration and include thermal oxidation, gasification and pyrolysis. The main purpose of Incineration is to convert waste to a stable end product and reduce the amount that requires disposal to landfill.

A number of hazardous waste incineration facilities are in operation – mainly within the pharmaceutical and fine chemicals sectors although there is currently no central national facility for the incineration of such wastes. The incineration of hazardous waste is licensed by the EPA by way of IPC/IPPC licences. Non- hazardous incineration facilities are also licensed by the EPA by issuing waste licences for them.

The incineration of Municipal Solid Waste (MSW) combined with energy recovery is an integral operation within most integrated waste management plans and is in line with current Irish

waste management policy. Currently however, Ireland remains the only country in the EU without a municipal waste treatment facility .

Any existing or proposed incineration facilities built in Ireland will have to comply with the requirements of the [EU Waste Incineration Directive 2000/76/EC](#) which is transposed into Irish law by the European Communities (Incineration of Waste) Regulations 2003 (S.I. No 275 of 2003). The Waste Incineration Directive aims to prevent, or limit as far as practicable the negative effects of incineration on the environment.

The Directive requires all incineration plants to keep the incineration gases at a temperature of 850 degrees centigrade for at least 2 seconds. The temperature must be raised to 1100 degrees centigrade for at least 2 seconds if the waste contains more than 1% of halogenated organic substances (expressed as chlorine).

The Directive requires strict monitoring of emissions of major pollutants. The limit values for incineration plant emissions are set out in Annex V to the Directive.

Special provisions are laid down in the directive relating to cement kilns, and combustion plants which co-incinerate waste. These provisions concern emission limit values and are contained in Annex II of the Directive.

3.6 Farm Plastics

The Waste Management (Farm Plastics) Regulations 2001 are intended to greatly increase the recycling of farm plastics, thereby reducing rural litter and undesirable waste management practices such as open burning. The first provisions on this matter came into operation in August 1997, with these regulations being replaced in July 2001.



The regulations apply to silage bags, silage sheeting and bale stretch wrap. Over 55,000 tonnes of waste silage sheeting and bale wrap plastic has been collected since the start of the

Waste Farm Plastics Collection Scheme in 1997. This important Scheme, which protects our environment, is paid for by Irish farmers through a small additional charge included in the price of silage sheeting and bale wrap plastic. The Scheme is now being administered by the Irish Farm Films Producers Group Ltd. (I.F.F.P.G. Ltd.), which represents the farm plastics industry and farmers, through the Irish Farmers Association (I.F.A.)

The IFFPG is made up of manufacturers and importers of farm plastics. The scheme provides a free plastic collection service to farmers.

Manufacturers or importers are required by the Regulations to join the IFFPG scheme or to set up their own plastic take-back scheme. However, as with the Waste Management (Packaging) Regulations, the requirements for the self-compliance option are much more onerous. For example, such bodies must establish a national deposit/refund scheme for farm plastics, with the deposit being set at €254 per tonne of plastic supplied. Purchasers of plastic from non-

IFFPG members will need to pay this deposit, which is returned when the plastic becomes waste and passes back for re-processing. The result is that there is a very strong incentive to join the IFFPG.

Enforcement of the Waste Management (Farm Plastics) Regulations is carried out by the local authorities.



4.0 FUTURE DEVELOPMENTS

4.1 The Batteries Directive

The new Batteries Directive 2006/66/EC was published on 26th September 2006 and replaced the 1991/157/EC Directive. The 1991 Directive was deemed to have limited scope, was found to be unworkable and was poorly implemented. Under the new Directive member states have until the 26th September 2008 to transpose it into national legislation. The primary aim of the Directive is to minimise the negative impact of batteries and accumulators and waste batteries and accumulators on the environment.

The new Directive applies to all batteries and accumulators placed on the community market, regardless of the shape, volume, weight, material composition or use. In practice all consumer or industrial batteries and accumulators are covered, even when incorporated in equipment otherwise covered by the WEEE and RoHS Directives. However, the new Directive excludes batteries and accumulators for military use and those designed to be sent into space.

The main objectives of the Directive are:

- To contribute to a high level of environmental protection by avoiding incineration and disposal in landfill of batteries and accumulators via the establishing of a closed loop system.
- To contribute to the proper functioning of the internal market i.e. establish rules for national collection and recycling schemes.



The Key provisions of the directive are:

- A ban on the use of mercury (over 0.0005% by weight) in all batteries and accumulators except in button cells (e.g. Watch batteries) provided they have a mercury content of not >2% by weight.
- A ban on the use of cadmium (over 0.002% by weight) in portable batteries except for:
 - a) Emergency and alarm systems
 - b) Medical equipment
 - c) Cordless power tools
- A ban on the disposal of untreated automotive and industrial batteries and accumulators to landfill or by incineration.
- Producers of batteries and accumulators will have to be registered.
- Producers are obliged to adopt and finance a battery collection and recycling scheme as well as the net costs associated with public information campaigns.
- The Directive sets out minimum collection targets of 25% by September 2012 and 45% by 26th September 2016.
- The Directive proposes the following recycling efficiencies:
 - Lead Acid batteries – all the lead and a minimum of 65% by average weight.
 - Nickel/Cadmium batteries – all the cadmium and a minimum of 75% by average weight.
- Producers of industrial batteries and accumulators will have to offer free take back of batteries and accumulators from end users.
- Manufacturers of electrical and electronic equipment must design products so as to ensure that batteries can be readily and safely removed.
- The Directive sets out a range of information that member states must ensure is provided to end users (through information campaigns) as well as labelling requirements for all batteries and accumulators.

- Member states must send the community a national implementation report every three years – the 1st report being due in September 2012. The Directive affects producers, distributors and end users of batteries and accumulators. It particularly affects those involved in the treatment and recycling of waste batteries and accumulators.

The Directive poses a number of issues for the manufacturers and distributors of batteries and accumulators, for the consumer, for local authorities and the waste management sector in Ireland. These include the possible incorporation of existing collection and registration schemes (eg WEEE) with those proposed under the Directive as well as the economic and technological viability of recycling consumer batteries .

The next phases in the transposition of the Directive include the development of draft legislation and a consultation process followed by a review and full transposition into Irish Law by 2008. During this process producers of batteries and accumulators and producers of electronic equipment should continue to monitor the implementation process to facilitate the implementation of the Directive and ensure compliance.

4.2 Composting

The EU Waste Framework Directive, the EU Thematic Strategy on the Prevention and Recycling of Waste and the EU Soil Thematic Strategy all recognise the benefits of composting as a necessary alternative waste treatment method which will facilitate diversion of waste from landfill. The National Strategy on Biodegradable Waste also states the relevance of composting as part of an integrated waste management approach.



At present there are a number of issues which need to be addressed to facilitate the development of a compost market in Ireland. Currently there are no composting standards available. A set of national compost quality standards are to be developed by a certified standards body in association with the DoEHLG and the industry. The standards will specify the maximum permissible concentration of various contaminants for composts.

The use of compost on pastureland (91% of agricultural land) is currently banned by the Animal By-Products Regulation. The Department of Agriculture will however allow catering waste derived compost to be spread on pastureland. This comes with strict conditions that animals are not allowed access this pastureland for specific time periods after the spreading of compost. For ruminants this time period is 21 days which is increased to 60 days for pigs.

Note: if any doubts exist in regard to the composting of wastes or the use of these composts on agricultural land, enquiries should be made to the Cré – The Composting Association of Ireland or The Department of Agriculture.

5.0 FURTHER INFORMATION

5.1 Where to get additional information

ORGANISATION	WEBSITE
An Bord Pleanála	www.pleanala.ie
CRÉ- The composting Association of Ireland	www.compostireland.ie
Department of Agriculture & Food	www.agriculture.gov.ie
Department of Communications Marine & Natural Resources	www.dcmnr.gov.ie
Department of the Environment Heritage & Local Government	www.environ.ie
Enterprise Ireland	www.enterprise-ireland.com
Envirocentre	www.envirocentre.ie
EPA	www.epa.ie
EPA National Waste Prevention Programme	www.epa.ie/OurEnvironment/Waste/NationalWastePreventionProgramme/
European Commission	http://ec.europa.eu/index_en.htm
European Commission Legislation Index	http://eur-lex.europa.eu/en/index.htm
European Integrated Pollution Prevention and Control Bureau	http://eippcb.jrc.es/
FAS	www.fas.ie



ORGANISATION	WEBSITE
Food Safety Authority of Ireland	www.fsai.ie
Forfas	www.forfas.ie
HSA	www.hsa.ie
IBEC	www.ibec.ie
Institute of Engineers of Ireland	www.iei.ie
Institute of Waste Management (Irish Centre)	www.ciwm.co.uk
Irish Environmental Law Association	www.iela.info
Irish Farm Films Producers Group	www.farmplastics.ie
Irish Farmers Association	www.ifa.ie
Irish Statute Book	www.irishstatutebook.ie
National Construction and Demolition Waste Council	www.ncdwc.ie
Race Against Waste	www.raceagainstwaste.com
REPAK Ireland	www.repak.ie
Sustainable Energy Ireland	www.sei.ie
The European Recycling Platform	www.erp-recycling.org/index.php
Defra, UK - Department for Environment Food and Rural Affairs	www.defra.gov.uk
WEEE Ireland	www.weeeireland.ie
WRAP	www.wrap.org.uk

5.2 List of the main Irish legislation affecting waste management

WASTE MANAGEMENT ACT 1996 (SI No 10 Of 1996)

WASTE MANAGEMENT (AMENDMENT) ACT 2001 (No 36 OF 2001)

WASTE MANAGEMENT ACT 1996 (COMMENCEMENT ORDER) 1996 (SI 192 OF 1996)

PROTECTION OF THE ENVIRONMENT ACT 2003 (COMMENCEMENT) (NO 2) ORDER 2003 (SI No 413 OF 2003)

ENVIRONMENTAL PROTECTION ACT, 1992 (NO 7 OF 1992)

WASTE MANAGEMENT (AMENDMENT OF WASTE MANAGEMENT ACT, 1996) REGULATIONS 1998 (SI No 146 OF 1998)

WASTE MANAGEMENT ACT 1996 (PRESCRIBED DATE) ORDER, 2001 (SI No 345 OF 2001)

EUROPEAN COMMUNITIES (AMENDMENT OF WASTE MANAGEMENT ACT, 1996) REGULATIONS, 1998 (SI No 166 OF 1998)

WASTE MANAGEMENT (PRESCRIBED DATE) REGULATIONS, 2001 (SI No 390 OF 2001)

WASTE MANAGEMENT (PLANNING) REGULATIONS 1997 (SI No 137 OF 1997)

WASTE MANAGEMENT (REGISTER) REGULATIONS 1997 (SI No 183 OF 1997)

WASTE MANAGEMENT (COLLECTION PERMIT) REGULATIONS, 2001 (SI No 402 OF 2001)

WASTE MANAGEMENT (COLLECTION PERMIT)(AMENDMENT) REGULATIONS, 2001 (SI No 540 OF 2001)

WASTE MANAGEMENT (PERMIT) REGULATIONS, 1998 (SI No 165 OF 1998)

WASTE MANAGEMENT (LICENSING) REGULATIONS 2004 (SI No 395 OF 2004)

WASTE MANAGEMENT (HAZARDOUS WASTE) REGULATIONS 1998 (SI No 163 OF 1998)

WASTE MANAGEMENT (HAZARDOUS WASTE)(AMENDMENT) REGULATIONS, 2000 (SI No 73 OF 2000)

WASTE MANAGEMENT (USE OF SEWAGE SLUDGE IN AGRICULTURE) REGULATIONS 1998 (SI No 148 OF 1998)

WASTE MANAGEMENT (USE OF SEWAGE SLUDGE IN AGRICULTURE)(AMENDMENT) REGULATIONS, 2001 (SI No 267 OF 2001)



WASTE MANAGEMENT (MOVEMENT OF HAZARDOUS WASTE) REGULATIONS 1998 (SI No 147 of 1998)

WASTE MANAGEMENT (TRANSFRONTIER SHIPMENT OF WASTE) REGULATIONS 1998 (SI No 149 of 1998)

WASTE MANAGEMENT (ENVIRONMENT LEVY)(PLASTIC BAG) REGULATIONS, 2001 (SI no 605 of 2001)

WASTE MANAGEMENT (LANDFILL LEVY) REGULATIONS, 2002 (SI No 86 of 2002)

WASTE MANAGEMENT (FARM PLASTICS) REGULATIONS, 2001 (SI No 341 of 2001)

WASTE MANAGEMENT (PACKAGING) REGULATIONS, 2003 (SI NO 61 of 2003)

WASTE MANAGEMENT (PACKAGING) (AMENDMENT) REGULATIONS, 2004 (SI No 871 of 2004)

WASTE MANAGEMENT (ELECTRICAL AND ELECTRONIC EQUIPMENT) REGULATIONS 2005 (SI No 290 of 2005)

WASTE MANAGEMENT (WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT) REGULATIONS 2005 (SI No 340 of 2005)

WASTE MANAGEMENT (RESTRICTIONS OF CERTAIN HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT) REGULATIONS 2005 (SI No 341 of 2005)

EUROPEAN COMMUNITIES (INCINERATION OF WASTE) REGULATIONS 2003 (SI No 275 of 2003)

WASTE MANAGEMENT (MISCELLANEOUS PROVISIONS) REGULATIONS 1998 (SI No 164 of 1998)

WASTE MANAGEMENT (END OF LIFE VEHICLES) REGULATIONS 2006 (SI No 282 of 2006)

WATER QUALITY (DANGEROUS SUBSTANCES) REGULATIONS 2001 (SI No 12 of 2001)

LITTER POLLUTION ACT, 1997 (NO 12 OF 1997)

CONTROL OF SUBSTANCES THAT DEplete THE OZONE LAYER REGULATIONS 2006 (SI No 281 of 2006)



5.3 EU Legislation relevant to Waste Management in Ireland

DIRECTIVE 2006/12/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 5 APRIL 2006 ON WASTE (THE WASTE FRAMEWORK DIRECTIVE)

COUNCIL DIRECTIVE 91/689/EEC OF 12 DECEMBER 1991 ON HAZARDOUS WASTE

COUNCIL REGULATION (EEC) No 259/93 OF 1 FEBRUARY 1993 ON THE SUPERVISION AND CONTROL OF SHIPMENTS OF WASTE WITHIN AND OUT OF THE EUROPEAN COMMUNITY

2000/532/EC COMMISSION DECISION OF 3 MAY 2000 REPLACING DECISION 94/3/EC ESTABLISHING A LIST OF WASTES PURSUANT TO ARTICLE 1(A) OF COUNCIL DIRECTIVE 75/442/EEC ON WASTE AND COUNCIL DECISION 94/904/EC ESTABLISHING A LIST OF HAZARDOUS WASTE PURSUANT TO ARTICLE 1(4) OF COUNCIL DIRECTIVE 91/689/EEC ON HAZARDOUS WASTE.

REGULATION (EC) No 2150/2002 OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 25 NOVEMBER 2002 ON WASTE STATISTICS

COUNCIL DIRECTIVE 1999/31/EC OF 26 APRIL 1999 ON THE LANDFILL OF WASTE

DIRECTIVE 2000/76/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 4 DECEMBER 2000 ON THE INCINERATION OF WASTE.

DIRECTIVE 2000/59/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 27 NOVEMBER 2000 ON PORT RECEPTION FACILITIES FOR SHIP GENERATED WASTE AND CARGO RESIDUES.

COUNCIL DIRECTIVE 86/278/EEC OF 12 JUNE 1986 ON THE PROTECTION OF THE ENVIRONMENT, AND IN PARTICULAR OF THE SOIL, WHEN SEWAGE SLUDGE IS USED IN AGRICULTURE.

COUNCIL DIRECTIVE 75/439/EEC OF 16 JUNE 1975 ON THE DISPOSAL OF WASTE OILS

EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE 94/62/EC OF 20 DECEMBER 1994 ON PACKAGING AND PACKAGING WASTE



DIRECTIVE 2000/53/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 18 SEPTEMBER 2000 ON END OF LIFE VEHICLES

DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 27 JANUARY 2003 ON THE RESTRICTION OF THE USE OF CERTAIN HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT

DIRECTIVE 2002/96/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 27 JANUARY 2003 ON WASTE ELECTRICAL AND ELECTRONIC (WEEE) - JOINT DECLARATION OF THE EUROPEAN PARLIAMENT, THE COUNCIL AND THE COMMISSION RELATING TO ARTICLE 9

DIRECTIVE 2006/66/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 6 SEPTEMBER 2006 ON BATTERIES AND ACCUMULATORS AND WASTE BATTERIES AND ACCUMULATORS AND REPEALING DIRECTIVE 91/157/EEC

COUNCIL DIRECTIVE 96/59/EC OF 16 SEPTEMBER 1996 ON THE DISPOSAL OF POLYCHLORINATED BIPHENYLS AND POLYCHLORINATED TERPHENYLS (PCB/PCT)

COUNCIL DIRECTIVE 89/369/EEC OF 8 JUNE 1989 ON THE PREVENTION OF AIR POLLUTION FROM MUNICIPAL WASTE INCINERATION PLANTS

COUNCIL DIRECTIVE 89/429/EEC OF 21 JUNE 1989 ON THE REDUCTION OF AIR POLLUTION FROM EXISTING MUNICIPAL WASTE INCINERATION PLANTS

COUNCIL DIRECTIVE 96/61/EC OF 24 SEPTEMBER 1996 CONCERNING INTEGRATED POLLUTION PREVENTION AND CONTROL

COUNCIL DIRECTIVE 91/271/EEC OF 21 MAY 1991 CONCERNING URBAN WASTE WATER TREATMENT

REGULATION (EC) No 1774/2002 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 3 OCTOBER 2002 LAYING DOWN HEALTH RULES CONCERNING ANIMAL BY PRODUCTS NOT INTENDED FOR HUMAN CONSUMPTION