

Government Interpretation of the Landfill (England and Wales) Regulations 2002 (As Amended)

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INTERPRETATION OF THE LANDFILL (ENGLAND AND WALES) REGULATIONS 2002 (AS AMENDED)

1 INTRODUCTION

1.1 Background

The Landfill Directive was developed through a process of discussion and negotiation for a period of some nine years before it was agreed as Directive 1999/31/EC on 26 April 1999 and published in Europe's Official Journal on 16 July 1999 (OJ L 182).

The Directive's overall objective is to supplement the requirements of the Waste Framework Directive and prevent or reduce as far as possible the negative effects of landfilling on the environment as well as any resultant risk to human health. It seeks to achieve this through specifying uniform technical standards at Community level and setting out requirements for location, conditioning, management, control, closure and preventative and protective measures for landfills. The Directive also includes some requirements that are aimed not at the engineering of the landfill but at the characteristics of the waste to be deposited. Examples are the requirements to treat most wastes before landfill and to divert biodegradable municipal wastes from landfill.

The terms of the Directive require a major change in the way the UK manages its wastes. For many years, landfill has been the main disposal option, and this has been shown not to be a sustainable way of disposing of waste, both environmentally and in terms of resource use. As a result, Government policy is to move away from landfill and push waste management up the waste hierarchy by concentrating on minimisation, reuse, re-cycling or recovery options. This overall policy is set out in Waste Strategy 2000¹ and the Prime Minister's Strategy Unit Report "Waste Not, Want Not"².

The Government considers that there are aspects of the Regulations and the underlying intentions of the Directive for which policy interpretation would be helpful. This document provides that interpretation. It is aimed at waste producers, waste managers, landfill operators and regulators and is intended to provide a clear statement of the Government's intentions in implementing the Directive through the relevant Regulations in England and Wales. In producing this document, it is important to state that while it expresses the Government's view, only the Courts can decide on the meaning of legislation.

The waste management licensing system in force under Part II of the Environmental Protection Act 1990 and the Waste Management Licensing Regulations 1994 fulfilled some of the requirements of the Waste Framework Directive. In the past, landfills have been regulated under waste management licensing regime in order to fulfil the Waste Framework Directive requirements. More recently, larger landfills have been brought into the Pollution Prevention and Control (PPC) regime to meet the Integrated Pollution Prevention Control (IPPC) Directive requirements. Whilst many of the requirements of the Landfill Directive in relation to the system of permits and the provisions of those permits are similar to those already in operation under the waste management licensing system and PPC, some provisions require UK practices to change. Important changes include:

- A ban on the disposal of certain wastes to landfill, for example, liquid waste, certain hazardous wastes and tyres.
- The separation of landfills into three types: for only hazardous, non-hazardous or inert wastes (and thus put an end to the common UK practice of mixing hazardous wastes with other wastes in landfills). The classification of wastes as hazardous or otherwise is by means of the European Waste Catalogue, transposed by the List of Waste Regulations 2005; up to date information on hazardous waste can be obtained from the hazardous

¹ Cm 4963

² published in November 2002

waste website (www.hazardouswaste.org.uk), the Environment Agency website (www.environment-agency.gov.uk), the Hazardous Waste Forum section of the Defra website (www.Defra.gov.uk).

- The requirement to treat most wastes before disposal to landfill.
- The introduction of waste acceptance criteria, which is starting to have a strong influence on the treatment options, particularly for hazardous wastes.

In addition, Articles 5 (1) & (2) of the Directive requires that a strategy on biodegradable waste is put in place that achieves, amongst other things, the progressive diversion of biodegradable municipal waste from landfill. This requirement has been implemented by the Government through Waste Strategy 2000 and the Waste and Emissions Trading Act 2003 and is not covered by this guidance.

While the Regulations impose requirements mainly on the operators of landfills, waste producers will be affected in important ways. They will need to work with operators to ensure that waste which is landfilled meets all the relevant requirements. It is for waste producers to decide the appropriate waste management route for their waste. The Government believes, as set out in Waste Strategy 2000, their first aim should be to reduce, recycle or re-use their wastes. Some waste will no longer be able to go to landfill so alternative disposal routes will need to be found. Once these options have been fully explored, if waste is to be landfilled, it will be necessary to carry out basic characterisation of the waste, and to consider appropriate treatment for the waste, in the light of waste acceptance criteria.

1.2 Implementing the Landfill Directive

Prior to 2000, landfills were regulated under Waste Management Licences (WMLs). This is changing so that by 2007, landfill sites still accepting waste will be permitted under Pollution Prevention and Control legislation.

The Integrated Pollution Prevention and Control Directive (96/61/EC) lists 'landfill' as an activity to be regulated under its system of 'integrated permits'. It requires that sites above a certain capacity threshold are issued with PPC permits by October 2007 at the latest if they are to continue accepting waste.

The Landfill Directive supplements the IPPC directive by setting a variety of technical standards of operation for landfill and sets out a timetable for existing sites to be brought up to standard. This must be achieved as soon as possible and not later than 31 March 2007. Sites that cease to operate must be closed as soon as possible and by 16 July 2009 at the latest. Existing sites were required to provide conditioning plans to demonstrate that they could continue to accept waste in accordance with the Directive requirements. Those that could not had to close.

The Government implemented the initial technical and regulatory requirements of the Landfill Directive in England and Wales in the Landfill (England and Wales) Regulations 2002, using the powers in Section 2 of the Pollution Prevention and Control Act 1999. Some of the requirements were implemented by amending parts of the Pollution Prevention and Control (England and Wales) Regulations 2000.

This guidance is amended from time to time to take account of changes to the legislation. This version takes account of two legislative amendments. These are (i) the Landfill (England and Wales) (Amendment) Regulations 2004 (S.I. 2004/1375), implementing Council Decision 2003/33/EC (OJ L11) establishing criteria and procedures for the acceptance of waste in landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC and (ii) the provisions in the Landfill (England and Wales)(Amendment) Regulations 2005 (S.I. 2005/1640).

The Environment Agency received conditioning plans in respect of about 900 existing landfills, and those landfills were given an initial classification under the Regulations pending

re-permitting. The sites have also been subject to risk assessment and are currently being re-permitted in tranches according to the results of those risk assessments.

Many of those existing landfills have previous phases of filling that are still regulated by WMLs but which are not physically separate from adjacent operational phases to be permitted. These will fall within the installation to be covered by the PPC permit.

1.3 References to the Regulations

Throughout the remainder of this guidance, the following terms are used:

- The “2000 Regulations” means the Pollution Prevention and Control (England and Wales) Regulations 2000 as amended³.
 - The “Regulations”, or the “2002 Regulations as amended”, means the Landfill (England and Wales) Regulations 2002, as amended by the Landfill (England and Wales) (Amendment) Regulations 2004 and 2005.
 - The “2004 Regulations” means the Landfill (England and Wales) (Amendment) Regulations 2004
- The “2005 Regulations” means the Landfill (England and Wales) (Amendment) Regulations 2005
- The “permit” or “landfill permit” means the permit required by the Landfill Directive, which in England and Wales is a permit under the 2000 Regulations.

1.4 Issues Addressed in this Document

It is not the purpose of this document to interpret every aspect of the Regulations. However, experience has shown that there are some issues for which further explanation would be beneficial, and the document therefore deals with those issues.

The issues addressed are:

Regulation	Issue
3	Definition of landfill and installation
4	Deposit of dredgings
5	Location of landfills
6	Dis-application of some provisions of the 2000 Regulations
7	Operating landfills of different classes in close proximity
8	Financial provision; Interpretation of Schedule 2 and the Groundwater regulations; Implementation dates; The “relevant waste management plan”.
10	Waste pre-treatment;

³ These Regulations have been amended by SI 2001 No. 503, SI 2002 Nos. 275 and 1702 and SI 2003 Nos. 1699 and 3296, SI 2004 Nos.434 and 3276 and SI 2005 No. 1448 (the Pollution Prevention and Control (Public Participation)(England and Wales) Regulations 2005), all available through <http://www.legislation.tso.gov.uk/stat.htm> . Of these, only SI 2003 No 3296 is directly relevant to landfills. The Landfill (England and Wales) Regulations 2002 (SI 2002 No. 1559), the Landfill (England and Wales)(Amendment) Regulations 2004 (SI 2004 No. 1375), the Waste Incineration (England and Wales) Regulations 2002 (SI 2002. No. 2980), the Solvent Emissions (England and Wales) Regulations 2004 (SI 2004 No. 107) and the Hazardous Waste (England and Wales) Regulations 2005 (SI 2005 No.894) also make amendments to the PPC Regulations 2000 in respect of those activities concerned.

	Waste acceptance procedures; List of Waste Regulations 2005 (as amended)
11	Charging the costs of landfill
14	Interpretation of Schedule 3
15	Closure “as soon as possible”; Closure without a PPC permit; Closure cf. Cessation of waste acceptance
19	Fit and proper person: training requirements

1.5 Structure of this document

The document follows the order of the 2002 Regulations, as shown in the table above. The longer sections have an introduction setting out the issues considered in the section.

A final section, 15, deals with the principles of enforcement.

1.6 References to Environment Agency guidance

The Agency has provided more detailed technical guidance on many aspects of the Regulations. Cross-references are provided to the principal guidance documents. The Government would expect stakeholders to have regard to these, and to any updates and subsidiary guidance documents.

1.7 Acknowledgement

The guidance has been produced by Defra officials in consultation with officials of the Welsh Assembly Government (WAG). A large part of the initial ground work was carried out by technical experts from the Environment Agency, to whom both the Department and the WAG are grateful.

2. REGULATION 3: DEFINITION OF LANDFILL

2.1 Introduction

“Landfill” is defined in the Regulations as meaning:-

“a waste disposal site for the deposit of waste onto or into land including:

- any site which is used for more than one year for the temporary storage of waste, and
- any internal waste disposal site, that is to say a site where a producer of waste is carrying out its own waste disposal at the place of production.

but excluding:

- any facility where waste is unloaded in order to permit its preparation for further transport for recovery, treatment or disposal elsewhere;
- any site where waste is stored as a general rule for a period of less than three years prior to recovery or treatment; or,
- any site where waste is stored for a period less than one year prior to disposal.

There are a number of issues regarding this definition that require clarification. These relate to:

- temporary/permanent storage;
- lagoons;
- spreading of waste on land;
- remediation of contaminated land.

A related matter is the identification of the “installation” that is to be permitted under the 2000 Regulations.

These issues are addressed below.

2.2 Temporary/permanent storage

Regulation 3(3) states:

Landfills include:

Subject to paragraph (4) any site which is used for more than a year for the temporary storage of waste.

Any permanent site storing waste on a temporary basis will be a landfill if it is operational for more than a year. This is qualified by paragraph (4) which excludes facilities such as transfer stations and other sites where waste is stored temporarily prior to treatment or recovery.

Any site used to store waste will be a landfill if waste is stored there for a year if the waste is to be disposed of. This includes permanent underground storage within a geological cavity such as a salt mine. A three year limit applies in cases where waste is destined either for recovery or for treatment.

A site which falls within these boundaries will be a landfill within the meaning of the Regulations and would need to be permitted as such.

2.3 Lagoons

Many sludges and liquids are deposited in lagoons. Where the waste is controlled waste, such sites are capable of falling within the broad definition of a landfill set out in regulation 3. The Government considers that two issues require clarification:

- is the deposit excluded by virtue of being stored for less than the specified period? (see section 2.3.1)
- Is the deposit one of “waste in liquid form”, and thereby prohibited by regulation 9(1)(a)? (see Section 8)

2.3.1 Storage times

Whether the deposit is excluded by virtue of being stored for less than the specified period will depend upon the way in which the lagoon is operated.

- i) In some cases, liquid or sludge is permanently deposited in the lagoon. Such cases fall within the definition of landfill, subject to the exemptions for dredging sludges.
- ii) A second type of operation involves periodic removal of the solids that have settled in the lagoon. Such an operation will not be a landfill where waste is stored for:
 - less than 3 years prior to recovery or treatment; or
 - less than 1 year prior to disposal.

Such an operation will not require a Landfill Permit but may require a Waste Management Licence or a PPC permit authorising the storage or treatment of waste.

- iii) A third type of operation involves temporary lagoons, from which all the waste is subsequently removed. These are subject to the same considerations as in (ii) above.

2.4 Disposal or recovery?

2.4.1 Spreading of waste on land

Where, for example, waste is spread on land, a distinction must be made between disposal activities and recovery activities. The difference between disposal and recovery is that the principal objective of a recovery operation is to ensure that the waste serves a useful purpose by replacing other substances that would have had to be used for that purpose (thereby saving natural resources), whereas disposal operations are primarily aimed at the disposal of waste.

Applying waste to land which is done as part of a recovery operation will not need a landfill permit. Whether a particular operation is considered disposal or recovery will need to be assessed on the circumstances in particular depending on the purpose of activity. If in doubt approach the Environment Agency.

2.4.2 Remediation of contaminated land

Where soils are retained on site following its remediation, consideration must be given as to whether the soils are waste, and whether their management amounts to recovery or disposal. It will be for the Environment Agency to decide what the primary purpose is – if it is disposal or if the soil is stored for a sufficiently long period then it will be a landfill. Where the soil is waste but is not being stored or disposed of a landfill, the re-use of the soil on land may require a waste management licence or, if applicable to the activity in question, registration of an exemptions under regulation 17 of and Schedule 3 to, the Waste Management Licensing Regulations 1994.

2.4.3 Environment Agency Guidance

The Environment Agency has produced Guidance to determine whether a waste activity is a disposal or recovery operation⁴ and specific Guidance on the Deposit of Waste in Land as a Recovery Activity⁵.

2.5 The installation to be permitted

2.5.1 Introduction

Regulation 3 defines landfills, and sections 2.2 – 2.4 relate to that definition. Where an activity is to be permitted as a landfill it is also necessary to consider the extent of the installation under the 2000 Regulations.

In so far as the 2000 Regulations relate to landfills, an installation is defined in regulation 2 of the 2000 Regulations⁶ as:

- i) **a stationary technical unit** where one or more activities listed in Part 1 of Schedule 1 are carried out; and
- ii) any other location on the same site where any other **directly associated activities** are carried out.

"Directly associated activity" is in turn defined in the 2000 Regulations⁷ as:

any directly associated activity which has a **technical connection** with the activity carried out in the stationary technical unit and **which could have an effect on pollution**.

The PPC regulatory regime requires the polluting activities subject to it to be regulated in an integrated manner.

In defining the extent of the installation that is to be the subject of the landfill permit, it is clearly essential to identify correctly the stationary technical unit and any directly associated activities.

2.5.2 The stationary technical unit

Government guidance contained in IPPC A Practical Guide, Edition 4⁸ explains that a "technical unit" can be taken to mean something which is functionally self-contained in the sense that the unit – which may consist of one component or a number of components functioning together – can carry out the Schedule 1 activity or activities on its own.

The Government considers that the stationary technical unit for any particular landfill may consist of both:

- those parts of the site where waste is being disposed of by being deposited into or onto land; and
- any other parts of the site (e.g. adjacent cells) that function together to enable the listed activity to take place.

⁴ ENVIRONMENT AGENCY (2005) Guidance to determine whether a waste activity is a disposal activity or recovery operation, Version 1, Environment Agency, Bristol.

⁵ ENVIRONMENT Agency (2005) Guidance: Deposits of waste in land as a recovery activity, Version 1, Environment Agency, Bristol.

⁶ As amended by regulation 8(2) of SI 2004 No.107 (see footnote 1).

⁷ As amended by regulation 8(2) of SI 2004 No.107 (see footnote 1).

⁸ DEPARTMENT FOR ENVIRONMENT, FOOD & RURAL AFFAIRS: IPPC A practical guide Edition 4 (June 2005), Defra, London.

The Agency has produced further guidance in RGN 16⁹

2.5.3 Other directly associated activities on the same site

After determining the extent of the stationary technical unit, the second element of the definition of installation to be considered is the inclusion of directly associated activities. The criteria that must be met for activities to be directly associated activities are explained in IPPC A Practical Guide, Edition 4¹⁰. This aspect is also covered in more detail in Agency guidance on the meaning of installation¹¹. For landfills, examples of activities likely to qualify for inclusion in the permit as directly associated activities are:

- Facilities for treating the waste prior to its deposit.
- Leachate management activities.
- Gas management activities.
- Waste reception and quarantine areas.
- Fuel storage areas.

⁹ ENVIRONMENT AGENCY (2003) Landfill Directive Regulatory Guidance Note 16 Establishing the area to be covered by a Pollution Prevention and Control permit for a landfill, version 1.0 Environment Agency, Bristol

¹⁰ DEPARTMENT FOR ENVIRONMENT, FOOD & RURAL AFFAIRS: IPPC A practical guide, Edition 4 (June 2005), Defra, London.

¹¹ ENVIRONMENT AGENCY (2004): IPPC Regulatory Guidance Series No 5, interpretation of Installation in the PPC Regulations, version 2, Environment Agency, Bristol

3. REGULATION 4: DREDGINGS

3.1 Background

Large quantities of material are dredged from inland waters in England and Wales by a variety of organisations charged with managing these waters for conservation, navigation, recreation, flood defence and land drainage purposes.

The material ranges from the potentially hazardous e.g. sediments from urban waterways subject to historic industrial pollution, to the extremely benign e.g. clean river gravel that can be sold as aggregate. In its 'raw' state much of this material would normally be regarded as 'liquid waste' under the definition contained in section 9 of this guidance.

Once removed from the waterway, dredgings need to be appropriately managed to minimise impacts on human health and the environment. Generally, this management involves the material being deposited in or on land in one of four ways:

- Landfilling in 'merchant' landfill sites.
- Spreading on land for benefit.
- Disposal in dedicated dredgings tips located alongside the waterway from which they were dredged.
- Spreading along the banks of the waterway from which they have been removed.

3.2 Disposal of Dredgings in 'Merchant' Landfills

The acceptance of dredgings for disposal at commercially operated landfills is subject to the same requirements under the landfill regulations (as amended) as any other type of waste. This includes the requirements to meet waste acceptance criteria and for pre-treatment.

3.3 Waste Recovery Activities Involving Dredgings

In addition to this general exclusion of waste recovery activities from the definition of landfill, regulation 4(a) of the 2002 Regulations specifically disapples the regulations in the case of:

"the spreading of sludges (including sewage sludges and sludges resulting from dredging operations) and similar matter on the soil for the purposes of fertilisation or improvement".

3.4 Disposal of dredgings alongside small waterways

The third indent of Article 3.2 of the Landfill Directive specifies that "the deposit of non-hazardous dredging sludges alongside small waterways from where they have been dredged out" is excluded from the scope of the Directive.

In many instances dredgings are simply deposited along the banks of the waterways from which they have been removed or alternatively into dedicated sites for the deposit of non-hazardous dredgings.

In the Government's view, the disposal of all non-hazardous wet dredgings meets the exclusion contained within Article 3.2 of the Directive if their disposal takes place:

- alongside the banks of a waterway from where they were dredged;
- on nearby land or in dedicated lagoons located at intervals along a waterway.

Following consultation, the Government has made an amendment to regulation 4(c) of the 2002 Regulations in the 2005 Regulations by transposing the exact wording in the Landfill Directive to clarify the legal position in respect of non-hazardous wet dredgings.

Regulation 4(c)(i) of the 2002 Regulations, as amended by the 2005 Regulations provides that the requirements of the landfill regulations do not apply to the deposit of non-hazardous dredging sludges alongside small waterways from where they have been dredged out. Such sites will continue to be regulated under Waste Management Licensing. This exclusion does not apply to dredging disposal sites that accept dredgings from other waterways.

4. REGULATION 5: PLANNING PERMISSION

4.1 Introduction

Regulation 5 places a specific responsibility on Waste Planning Authorities (WPA) to consider the requirements of Schedule 2, paragraph 1(1) of the Regulations (distances from residential and recreational areas; the proximity to water sources; geological and hydro-geological conditions; the risk of natural disasters; and protection of the site's heritage).

The relevant waste management plans will also have a bearing on the location of landfills as it is an objective to implement such plans under Schedule 4 to the Waste Management Licensing Regulations 1994 for planning authorities (and indeed the Environment Agency) in carrying out their respective functions. This is discussed further in section 7.5.

4.2 Landfill location and the protection of groundwater

Both the Agency and the WPA have a role in determining landfill location. A PPC permit cannot be granted until planning permission for a landfill is in place. In assessing the planning application the WPA will look at groundwater to meet the Schedule 2, paragraph 1(1) requirements and consult the Agency. The Agency will give an initial view at this stage but the precise operation assessment will be done at the landfill permitting stage and the project may therefore still be rejected at that stage. However, because groundwater may be protected by managing the location of a landfill and by its engineering the two are discussed together in relation to regulation 8 (section 7.3).

4.3 Regulation 5 and Schedule 2, paragraphs 1(1) and 1(2)

Regulation 5 provides that:

A planning permission under the Town and Country Planning Act 1990 may be granted for a landfill only if the requirements of paragraph 1(1) of Schedule 2 to the 2002 Regulations have been taken into consideration.

Schedule 2, paragraph 1(1) states:

The location of a landfill must take into consideration requirements relating to –

- a) the distances from the boundary of the site to residential and recreational areas, waterways, water bodies and other agricultural or urban sites;
- b) the existence of groundwater, coastal water or nature protection zones in the area;
- c) the geological or hydro geological conditions in the area;
- d) the risk of flooding, subsidence, landslides or avalanches on the site; and
- e) the protection of the natural or cultural heritage in the area.

and paragraph 1(2) continues:

A landfill permit may be issued for the landfill only if –

- (a) the characteristics of the site with respect to the requirements in sub-paragraph (1); or
- (b) the corrective measures to be taken, indicate that the landfill does not pose a serious environmental risk.

4.3.1 Existing landfills

Landfills which were already licensed or permitted when the Landfill Directive came into force in England and Wales (on 16 July 2001) and remained open when it was transposed (on 15 June 2002) are subject to a transitional regime. This is set out in Schedule 4 to the 2002 Regulations and its purpose to allow these sites to be brought into line with the Directive. If it is not possible for them to be brought into line, they are required to close.

It is clear that the location of an existing landfill is not something that is capable of being changed and hence the Directive provided that these sites are exempted from its location requirements. This is achieved by excluding the location requirements from the assessment made by the Environment Agency under Schedule 4 to the 2002 Regulations. It is not necessary for the WPA to revisit the planning permission to assess whether the location requirements are met.

4.3.2 New landfills

New landfills are those landfills permitted for the first time after the 16 July 2001. They are therefore required from the start of their operations to comply with all the Directive requirements, including location requirements.

The Town and Country Planning (Environmental Impact Assessment) (EIA) (England and Wales) Regulations 1999 set out at Schedule 4 the information to be included in an Environmental Statement. These are also included in Circular 02/99¹², and guidance is given in "Environmental Impact Assessment: Guide to Procedures"¹³, Appendix 5.

Some of the environmental issues that need to be covered by an Environmental Statement (and any scoping issues) will also have to be separately addressed for the purpose of meeting the requirements of Schedule 2, paragraph 1(1) of the Regulations.

Some landfills may fall outside the indicative criteria for Schedule 2 developments listed in Para A 36 of Circular 02/99. While the WPA may consider that an EIA is not required, it is still necessary to meet the requirements of Schedule 2, paragraph 1(1) of the Regulations

Regulation 8(3)(a)(i) requires the Environment Agency to consider appropriate conditions for ensuring compliance with all of Schedule 2. The consideration of the matters in Schedule 2, Paragraph 1(1), respectively by the WPA and the Environment Agency, should be as advised in PPS 10.

¹² DEPARTMENT OF THE ENVIRONMENT, TRANSPORT AND THE REGIONS (1999), Office of the Deputy Prime Minister. Circular 02/99: Environmental Impact Assessment. TSO, London.

¹³ DEPARTMENT OF THE ENVIRONMENT, TRANSPORT AND THE REGIONS (2000), Office of the Deputy Prime Minister. Environmental Impact Assessment; A guide to procedures. ISBN 0 7277 2960 8

5. REGULATION 6: DISAPPLICATION OF THE 2000 REGULATIONS

Article 1(2) of the Landfill Directive states that:

In respect of the technical characteristics of landfills, this Directive contains, for those landfills to which Directive 96/61/EC is applicable, the relevant technical requirements in order to elaborate in concrete terms the general requirements of that Directive. The relevant requirements of Directive 96/61/EC shall be deemed to be fulfilled if the requirements of this Directive are complied with. 96/61/EC is the IPPC Directive.

The 2002 Regulations therefore set out the relevant technical requirements, principally in Schedule 1, and provide condition-making powers to ensure that the aim and objectives of the Landfill Directive are met. As a result, the condition making powers of the 2000 Regulations are largely dis-applied by regulation 6(3), in respect of landfilling activities.

However, where the Directive and the Regulations do not set out specific technical requirements (e.g. landfill gas utilisation, leachate treatment, odour management), then the Agency will still need to include any other conditions that are appropriate, taking into account the objectives of the Landfill Directive, the IPPC Directive and the impacts of such activities.

6 REGULATION 7: LANDFILLS OF DIFFERENT CLASSES IN CLOSE PROXIMITY

6.1 Introduction

The Government considers that the requirement for classification of landfills still allows the operation of landfills of different classes in close proximity, separated, for example, by a barrier.

Regulation 7 specifies that landfills must be classified as for hazardous waste, for non-hazardous waste or for inert waste. Regulation 10(2) provides that waste shall only be accepted if it meets the relevant acceptance criteria for that class of landfill.

This means that the practice of mixing hazardous with non-hazardous wastes - co-disposal - was banned from 16 July 2004.

If a landfill operator wishes to operate landfills of different classes in close proximity, then the Government considers that the following two objectives must be met:

- There must be no interactions between the wastes in the different landfills.
- The landfills must be operated so as to eliminate any possibility that waste may be deposited in the wrong landfill.

In permitting any such landfills, the Agency must ensure that no co-disposal of waste takes place.

6.2 Permitting

The effect of regulations 7 and 8 is that the landfills of different classes must be operated as separate installations so that each site will separately meet all the conditions of the Regulations and be capable of separate management.

6.3 Prevention of waste interactions

The Government considers that the design and operation of the landfills should give effect to the following principles:

- there should be no direct physical contact between wastes in the separate landfills;
- there should be no contact between the waste products from any landfill, including leachate or gas, and the wastes in any other landfill (see below);
- the landfills should have separate leachate collection and extraction systems (but not necessarily separate treatment and discharge systems);
- operation of any landfill must not compromise the environmental control systems of any other.

As part of its regulatory function, the Environment Agency has produced technical guidance on the landfill engineering requirements to prevent waste interactions. Operators should have regard to this guidance, currently provided in RGNs 6¹⁴ and 11¹⁵.

¹⁴ ENVIRONMENT AGENCY (2004) Landfill Directive Regulatory Guidance Note 6: Interpretation of the Engineering Requirements of Schedule 2 of the Landfill (England & Wales) Regulations 2002, Version 2, Environment Agency, Bristol.

¹⁵ ENVIRONMENT AGENCY (2005) Landfill Directive Regulatory Guidance Note 11: The disposal in landfills for non-hazardous waste of: stable, non-reactive hazardous waste, asbestos wastes and wastes with a high sulphate or gypsum content, version 2, Environment Agency, Bristol.

6.4 Control of waste deposits

Operators must demonstrate to the Environment Agency they can ensure that, following on-site verification of each load of waste, the load is directed to the appropriate landfill of the correct class, and that the load cannot then accidentally reach the wrong landfill. However, it is not necessary to have separate laboratory facilities or main site offices and weighbridges for each landfill.

7. REGULATION 8: ISSUES FOR PERMIT CONDITIONS

7.1 Introduction

Regulation 8 sets out wide-ranging requirements as to the content of permits. The Government considers that it is necessary to provide clarification in respect of the following aspects:

- regulation 8(2)(b): financial provision.
- regulation 8(3)(a)(i): interpretation of Schedule 2, and the implementation of the Groundwater Regulations¹⁶.
- regulation 8(4): implementation dates for certain of the requirements of the Regulations.
- the relevant waste management plan.

These are dealt with in sections 7.2 – 7.5 below.

7.2 Financial provision

Regulation 8(2)(b) requires the operator to make financial provision to ensure that:

- the obligations (including after-care provisions) arising from the permit are discharged; and
- the financial provision is maintained until the permit is surrendered in accordance with the 2000 Regulations.

The Environment Agency already has standard mechanisms, taking account of the following objectives:

- adequate funding is secured for as long as a landfill presents a hazard to the environment to meet the operational obligations, including the post-closure costs; and
- this funding is available to a competent operator when required

7.3 Schedule 2 – General Requirements for Landfills

7.3.1 The Groundwater Regulations

Schedule 2 sets out general requirements for all landfills. In addition, the requirements of the Groundwater Directive apply independently. In carrying out its functions under the 2000 Regulations, the Environment Agency is required by virtue of regulation 3 of the Groundwater Regulations 1998 to ensure the requirements of the Groundwater Directive (as transposed by the Groundwater Regulations) are also met.

The Groundwater Regulations require that there should be no unacceptable discharge to groundwater. Unacceptable discharges are:

- discharges causing discernible entry of List I substances to groundwater, and/or
- discharges of List II substances that cause pollution of groundwater

Therefore, when planning and designing a landfill, it is necessary to ensure that there will be no likelihood of unacceptable discharges from the site.

¹⁶ The Groundwater Regulations (1998). SI 1998 No. 2746. TSO, London.

The Government considers that landfills should not be sited in any designated “Source Protection Zone 1” (SPZ1).

In all other situations, risk assessment should be undertaken in accordance with paragraphs 1(1)(b) and (c), 2 and 3 of Schedule 2 and the requirements of the Groundwater Regulations. The risk assessment should be informed by guidance issued by the Environment Agency¹⁷ on this matter.

A key requirement of such risk assessment is that it should cover the long-term, that is, it must include consideration of future failure and degradation of the active controls (e.g. artificial sealing liner and leachate management systems, and operational/management controls including groundwater pumping) until such time as the likely contaminant concentrations in the landfill no longer pose a risk (landfill completion).

7.3.2 Schedule 2, paragraph 1(1): Location criteria

Paragraph 1(2) of Schedule 2 only allows the grant of a landfill permit where the location of the landfill does not pose a serious environmental risk. Regulation 5 allows the grant of planning permission only if the requirements of paragraph 1(1) have been taken into account. The Environment Agency will therefore advise Waste Planning Authorities, in relation to both Development Plans and planning applications, regarding circumstances where the protection of groundwater requires that a landfill should not be developed to aid them carrying out their functions. The Environment Agency will also assess the environmental risk as part of its detailed assessment of a permit application.

In addition to locations in SPZ1, referred to in section 7.3.1, landfills should not be developed where risk assessment demonstrates that active long-term site management is essential to prevent long-term groundwater pollution, and the proposed site is:

- below the water table in any strata where the groundwater provides an important contribution to river flow or other sensitive surface waters;
- on or in a major aquifer;
- within Source Protection Zones II or III.

The Environment Agency will need sufficient information to assess these criteria and will object to applications (and refuse PPC applications) where this is not provided.

Section 4.4 deals with the definitions of new and of existing landfills and how location requirements apply to them.

7.3.3 Schedule 2, paragraphs 3(2) and 3(3) – Protection of groundwater etc.

Paragraphs 3(2) and 3(3) of Schedule 2 set out how soil, surface water and groundwater is to be protected by the use of a geological barrier and the efficient collection of leachate. Paragraphs 3(4) to 3(7) set out technical detail on the make up of the barrier, including the need for a bottom liner during the operational phase of the landfill and a top liner following closure and during the after care phase. Paragraph 3(8) allows for the *reduction* (but not their removal) in the requirements of paragraphs 3(3) to 3(7) “to an appropriate extent” on the basis of an environmental risk assessment.

7.3.4 Discharges of listed substances to groundwater from already deposited wastes

In cases where existing waste deposits form part of the installation, to meet the requirements of the Groundwater Regulations 1998, the applicant must demonstrate that there will be no unacceptable discharges from the installation (as well as the need for existing sites to meet all the requirements of Directive save location).

¹⁷ ENVIRONMENT AGENCY (2004) Guidance on assessment of risks from landfill sites. Environment Agency, Bristol. draft for external consultation.

Where risk assessment indicates that existing areas of the installation are currently giving rise to an unacceptable discharge to groundwater the Environment Agency may still issue a permit provided the applicant can demonstrate, using a fully quantitative risk assessment, that:

- mitigation measures will render the existing discharge acceptable **and**
- the ongoing landfilling operation itself and any impact it may have on the old wastes will not, in the long-term, result in an additional risk of entry of List I substances into groundwater or pollution of groundwater by List II substances.

Mitigation measures must be designed to reduce the capacity of the site to discharge listed substances in order to ensure the necessary protection to groundwater and compliance with the Groundwater Regulations.

Risk assessment of mitigation proposals must include the long-term degradation of any active management systems.

The measures should be designed to achieve compliance as soon as possible after the issue of the permit and no later than the occasion of the first four-yearly review required under the Groundwater Regulations.

The permit must include monitoring and evaluation criteria to assess the effectiveness of the measures.

7.3.5 Principal Agency guidance relevant to Schedule 2

The Environment Agency has produced and continues to produce a considerable amount of guidance relating to the practical issues raised by location of and technical requirements for landfills.

The following Table shows the principal guidance relevant to Schedule 2.

DEPARTMENT OF THE ENVIRONMENT, TRANSPORT & THE REGIONS <i>et al.</i> (2000). Guidelines for Environmental Risk Assessment and Management. The Stationery Office, London.
ENVIRONMENT AGENCY (2004) Guidance on assessment of risks from landfill sites. Environment Agency, Bristol, draft for external consultation.
ENVIRONMENT AGENCY (2003) Part B of Application form for the Landfill Sector, Templates for the Completion of Section 1. Section A – Conceptual Model, Environmental Setting and Installation Design Report, Section B - Hydro geological Risk Assessment Report, Section C - Stability Risk Assessment Report, Section D - Landfill Gas Risk Assessment. Version 2, Environment Agency, Bristol.
ENVIRONMENT AGENCY (2001) Guide to Good Practice for the Development of Conceptual Models and the Selection and Application of Mathematical Models of Contaminant Transport Processes in the Subsurface. National Groundwater & Contaminated Land Centre report NC/99/38/2, Environment Agency, Solihull.
ENVIRONMENT AGENCY (2002) The implementation of the EC Groundwater Directive (80/68/EEC) in the United Kingdom. www.Environment-Agency.gov.uk/search/JAGDAG .
ENVIRONMENT AGENCY (2002) Determination of substances for the purposes of the EC Groundwater Directive (80/68/EEC). www.Environment-Agency.gov.uk/search/JAGDAG .
ENVIRONMENT AGENCY (2002) List of substances determined for the purpose of the EC Groundwater Directive (80/68/EEC). www.Environment-Agency.gov.uk/search/JAGDAG .
DEPARTMENT OF THE ENVIRONMENT, TRANSPORT AND THE REGIONS (2001) Guidance on the Groundwater Regulations 1998, Department for the Environment, Food and Rural Affairs, London.
ENVIRONMENT AGENCY (1998): Policy and Practice for the Protection of Groundwater (2 nd Edition). Environment Agency, Solihull.
ENVIRONMENT AGENCY (2002) Regulatory Guidance Note 3 Groundwater protection: locational aspects of landfills in planning consultation responses and permitting decisions, version 4.0. Environment Agency, Bristol.
ENVIRONMENT AGENCY (2004) Landfill Regulatory Guidance Note 6, interpretation of the engineering requirements of Schedule 2 of the Landfill (England and Wales) Regulations 2002, version 2. Environment Agency, Bristol.
ENVIRONMENT AGENCY (2003) Hydro geological risk assessments for landfills and the derivation of groundwater control and trigger levels. Environment Agency, Bristol.
ENVIRONMENT AGENCY (2001) Framework policy for landfill engineering. Environment Agency, Warrington.
ENVIRONMENT AGENCY (2005) Landfill Restoration – Technical Guidance on Capping & Restoration. Environment Agency, Bristol, consultation draft (final version in preparation).
ENVIRONMENT AGENCY (2003) Landfill Directive Regulatory Guidance Note 16 Establishing the area to be covered by a Pollution Prevention and Control permit for a landfill, version 1.0 Environment Agency, Bristol
ENVIRONMENT AGENCY (2004) Guidance on the management of landfill gas Environment Agency, Bristol. (This overarching guidance on the management of landfill gas is supported by a number of specific guidance documents.)
ENVIRONMENT AGENCY (2002) Technical guidance for the regulation of odour at waste management facilities. Environment Agency, Bristol.

7.4 Implementation dates

7.4.1 Introduction

The Regulations apply to all sites which accepted waste after 16 July 2001 when the Landfill Directive came into force. Any site which closed before 16 July 2001 did not therefore need to comply with the Directive's closure requirements. Any site permitted after that date needs to comply with all the requirements of the Regulations. Sites already in existence at the July 2001 date benefit from a transitional period before they need to be brought fully into line with the Directive. This will be done by re-permitting these existing sites under the Regulations. Some obligations are brought in earlier, directly under the Regulations rather than when the permit to be re-issued. There is also the facility for other obligations to be brought in at some date after permitting.

A new landfill is one that was licensed or permitted after 16th July 2001. Due to the late transposition of the Directive, permits which are caught by the Directive were issued before the transposing regulations came into force. During this time the Environment Agency exercised their powers to ensure Directive requirements were met. However, there is still a requirement under paragraph 2 of Schedule 4 the Regulations for the Environment Agency to make any amendments necessary to bring these permits fully into line. Any new land area covered by an application made after the 2001 date to extend an existing licensed or permitted area is also treated as a new landfill.

An existing landfill is one that was operational (accepting waste for disposal) or authorised at 16 July 2001.

The Directive recognises it may take some time before all existing sites can be re-permitted but requires certain requirements to be brought in to force within a specific timeframe, in particular:

- the ban on particular wastes going to landfill;
- the requirement to treat wastes prior to landfill;
- waste acceptance criteria and procedures.

In consequence, some provisions of the Regulations are to be applied via landfill permit conditions, while some (as specified in Schedule 4, paragraph 3(3)-(5)) are applied directly by the Regulations before re-permitting. There is also a facility for other obligations to be brought in at some date after permitting. The Environment Agency is able to specify dates when particular obligations should apply. This will allow some provisions to be brought into force on a common date even if it is later than the re-permitting for the individual site.

7.4.2 Regulation 8 and Schedule 4 – Landfill Permit Conditions

Regulation 8 specifies the conditions that should appear in the landfill permit, including the types and quantity of waste authorised to be deposited, preparation, control and monitoring procedures, financial provision, accident prevention and appropriate conditions to comply with regulatory requirements, including:

- regulation 9 (prohibition of acceptance of certain wastes at landfills).
- regulation 10 (waste which may be accepted in the different classes of landfill).
- regulation 12 (waste acceptance procedures).

7.4.3 Summary: permit conditions or directly under the Regulations?

Landfills other than existing landfills require a permit from the outset, and hence the permit conditions must apply all the requirements of the Regulations, including prohibited wastes, waste treatment and waste acceptance procedures.

Existing landfills for hazardous wastes are subject to direct obligations under the Regulations not to accept:

- waste in liquid form;
- explosive, corrosive, oxidising, flammable or highly flammable wastes;
- hospital and other clinical wastes which are infectious;
- waste tyres and shredded tyres;
- waste which has been mixed or diluted solely to meet the waste acceptance criteria.

Existing landfills for hazardous wastes are subject to direct obligations only to accept:

- waste that has been subject to prior treatment;
- waste that meets the relevant acceptance criteria.

Existing landfills for hazardous wastes are subject to direct obligations to inspect and test wastes.

Other requirements of the Regulations must be applied by the Environment Agency to existing landfills for hazardous wastes as they are permitted. The direct obligations fall away on re-permitting because they will then be covered by permit conditions.

Non-hazardous and inert sites have direct requirements too. They cannot accept hazardous waste (unless it is stable non-reactive hazardous waste and they are authorised to accept such waste).

Under transitional arrangements for existing landfills for non-hazardous wastes (including landfills for inert wastes), the requirements of the Regulations must be applied by the Environment Agency through the conditions of landfill permits. The prohibition of liquid wastes and the requirement to treat wastes prior to acceptance will both be applied from 30 October 2007. The amendments made in the 2005 Regulations mean that all relevant permits shall be read as containing a condition to that effect.

7.4.4 Prohibited wastes and prior treatment

The application of the requirements of the regulations is summarised in the following table.

REQUIREMENT	NEW LANDFILL	EXISTING LANDFILL FOR HAZARDOUS WASTE	OTHER EXISTING LANDFILL
Wastes prohibited by regulation 9(b)-(d) of the 2002 Regulations may not be accepted.	Now, via permit	Now, directly under the regulations	May not accept any hazardous wastes
Wastes in liquid form may not be accepted.	Now, via permit	Now, directly under the regulations	30 October 2007
Whole used tyres may only be accepted as engineering material	From 16 July 2003, via permit However, a new landfill for hazardous waste may not accept such waste, as it is not hazardous waste.	From 16 July 2003, via permit	From 16 July 2006. Whole used tyres may only be accepted as engineering material thereafter if authorised by the permit.
Shredded used tyres may not be accepted	From 16 July 2006, via permit. However, a new landfill for hazardous waste may not accept such waste, as it is not hazardous waste.	From 16 July 2004 (as these landfills may not accept non-hazardous waste)	From 16 July 2006
Wastes must be subject to prior treatment (Regulation 10(1) of 2002 Regulations and Regulation 6(1) of 2005 Regulations apply	Now, via permit	From 16 July 2004, directly under the Regulations	30 October 2007

7.4.5 Waste acceptance criteria

The national interim waste acceptance criteria originally included in the 2002 Regulations have been replaced by the full waste acceptance criteria adopted at European level from 16 July 2005 by the 2004 and 2005 Regulations.

	All new landfills	Existing hazardous landfills	Other existing landfills
Full Waste Acceptance Criteria	16 July 2005	16 July 2005	As permitted

7.4.6 Waste testing and characterisation

The 2004 Regulations introduce a three level hierarchy of waste characterisation and testing:

- Level 1 – basic characterisation.
- Level 2 – compliance checking.
- Level 3 – on-site verification.

The timetable for the introduction of the hierarchy may be summarised as follows:

Level of testing / characterisation	New landfills	Existing landfills for hazardous waste	Other existing landfills
Level 3	As permitted	From 16 July 2002, by direct application of the Landfill Regulations	As permitted
Level 1 and 2	From 16 July 2005	From 16 July 2005, by direct application of the Landfill Regulations	As permitted

Although the specific requirements of the Directive for waste characterisation and testing apply as shown above, the Government considers that some of the basic principles are already applied by the Duty of Care under Section 34 of the Environmental Protection Act 1990. Waste holders must take all reasonable measures to prevent a breach of the WML or PPC permit conditions, and must transfer such a description as necessary to enable others to avoid such contravention. Landfill operators also need to ensure that they comply with the requirements of the Regulations and their permit.

7.5 Landfill Permits and Waste Management Plans

7.5.1 Introduction

Paragraph 4 of Schedule 4 to the 1994 WML Regulations requires that waste is recovered or disposed of without endangering human health and without using processes or methods which could harm the environment and in particular without—

- (i) risk to water, air, soil, plants or animals; or
- (ii) causing nuisance through noise or odours; or
- (iii) adversely affecting the countryside or places of special interest; implementing, so far as material, any plan made under the plan-making provisions.

These objectives stem from the Waste Framework Directive and remain valid subsequent to the implementation of the Landfill Directive.

7.5.2 The relevant waste management plan

Schedule 4 to the 1994 WML Regulations, which in part transposes the Waste Framework Directive in Great Britain, requires both planning authorities and the Environment Agency to

implement plans made under the 'plan-making provisions' when discharging functions under the Town and Country Planning Act 1990 and the 2000 Regulations respectively.

Plan-making provisions are defined for these purposes to include Waste Strategy 2000 (as amended)¹⁸ (in Wales "Wise about Waste"¹⁹) and Part II of the Town and Country Planning Act 1990 (development plans). In addition PPS10²⁰, and in Wales TAN 21²¹, also form part of the waste management plan for England and Wales for the purposes of the Waste Framework Directive.

Waste Strategy 2000, PPS10 and TAN 21 (to be read in the context of Planning Policy Wales 2002²²) set out the framework for the preparation of strategies, documents and plans which are prepared under Part 1 (regional functions), Part 2 (local development), Part 6 (Wales) and the relevant transitional provisions of the Planning and Compulsory Purchase Act 2004 ('the PCPA'). PPS 10 specifically requires WPAs to prepare and deliver planning strategies that are consistent with obligations required under European Legislation.

Following the introduction of Parts 1, 2 and 6 of the PCPA, Schedule 4 to the 1994 WML Regulations will need to be amended. Defra intends to do this as soon as practicable.

When the Waste Strategy 2000 was issued the Government were looking ahead to the Landfill Directive. As of now the Landfill Directive and the Council Decision establishing criteria and procedures for the acceptance of landfills have been transposed into national law. Whilst many of the requirements were already well established nationally such as prohibition of landfilling of flammable waste and clinical waste and the requirement for aftercare, the Landfill Directive and the Council Decision have heralded changes in the role of landfill.

The Government has announced that the next step towards the development of a definitive revised waste strategy will be the publication of a substantial "progress report" in autumn 2005. One element of this documents, which is a major opportunity for formal consultation with external stakeholders will be an account of progress and major policy developments since Waste Strategy 2000. There will also be a need to indicate new policies under development. Subject to further Ministerial decisions and what stakeholders say, these new policy directions will eventually be absorbed into a final strategy documents for publication in summer 2006.

¹⁸ DEPARTMENT OF THE ENVIRONMENT, TRANSPORT AND THE REGIONS (2000), DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS. Waste Strategy 2000: England and Wales. , London. Amended July 2005 (amendments available at <http://www.defra.gov.uk/environment/waste/localauth/pdf/changes-wastestrat2000.pdf>)

¹⁹ WELSH ASSEMBLY GOVERNMENT (2002). Wise about Waste: the National Waste Strategy for Wales. ISBN 0 7504 2760 4

²⁰ OFFICE OF THE DEPUTY PRIME MINISTER (2005). Planning Policy Statement 10 on Sustainable Waste Management. Available from the website of the Office of the Deputy Prime Minister.

²¹ WELSH ASSEMBLY GOVERNMENT (2001). Planning Policy Wales. Technical Advice Note 21: Waste. ISBN 0 7504 2815 5

²² WELSH ASSEMBLY GOVERNMENT (2002). Planning Policy Wales. ISBN 07504 28546

8. REGULATION 9: WASTES IN LIQUID FORM

Regulation 9 provides that the operator of a landfill shall not accept certain wastes, including:

“any waste in liquid form (including waste waters but excluding sludge)”.

Wastes in liquid form are prohibited from landfill due to the potential problems caused by their propensity to flow and be mobile within a landfill.

In the absence of a definition in the Landfill Directive and bearing this purpose in mind, wastes in liquid form, specifically in the context of landfills, should be regarded as:

- Any waste that near instantaneously flows into an indentation void made in the surface of the waste; **or**
- Any waste load containing free draining liquid substance in excess of 250 litres or 10% of the load volume, whichever represents the lesser amount. “Free draining” means a liquid as defined in (i), irrespective of whether that liquid is in a container.

The first of these interpretations can be used to distinguish between liquids and sludges. A waste that flows only slowly, rather than near instantaneously, into an indentation void will be a sludge (or possibly a fine-grained solid) and therefore not prohibited by regulation 9(1)(a).

The second interpretation should be used where liquids are known to be present in small amounts in a generally solid waste, or are adventitious in a waste. An example of the former might be cartons of milk or juice in mixed commercial waste. The latter would include liquid that has drained or been squeezed from components of the waste, and/or rainwater that has fallen in the waste container.

The prohibition relates to the acceptance of waste in a landfill not to the generation or management of liquid (leachate or gas condensate) within the landfill.

Where a liquid is used as an aid to facilitate the transport of waste to the landfill, usually by pipeline, and the liquid is subsequently removed then this may not amount to the acceptance of waste in a liquid form. Each such case will, however, be treated on its merits.

The Environment Agency has produced a number of Interpretation Notes relating to liquid waste^{23, 24}.

²³ENVIRONMENT AGENCY (2003) Landfill Directive Interpretation Note 1: Disposal of Liquid waste at hazardous landfills, Version 1, Environment Agency, Bristol.

²⁴ ENVIRONMENT AGENCY (2002) Landfill Directive Interpretation Note 2: Disposal of liquids in Cartons/Bottles, Version 1, Environment Agency, Bristol.

9 REGULATION 10(1): WASTE TREATMENT

9.1 Introduction

Regulation 10(1) provides that:

10. - (1) The operator of a landfill shall ensure that the landfill is only used for landfilling waste which is subject to prior treatment unless -

- a) it is inert waste for which treatment is not technically feasible; or
- a) it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment.

Regulation 8(3) requires that landfill permits shall include conditions giving effect to this requirement; Schedule 4, paragraph 3(3) provides that the requirement shall apply directly to the operators of landfills for hazardous wastes on or after 16 July 2004. The timetable for the introduction of the requirement is discussed in section 7, in particular section 7.4.4.

Regulation 2 defines treatment:

"treatment" means physical, thermal, chemical or biological processes (including sorting) that change the characteristics of waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.

Industry has asked for clarification of the regulation 2 definition, and the Government's interpretation is set out in detail in the following sub-sections.

9.2 The "three point test"

The Government's view is that to come within the regulation 2 definition, any potential treatment must fulfil three criteria:

1. It must be a physical/thermal/chemical or biological process including sorting.
2. It must change the characteristics of the waste.
3. It must do so in order to:
 - a) reduce its volume, or
 - b) reduce its hazardous nature, or
 - c) facilitate its handling, or
 - d) enhance its recovery.

For convenience, this is referred to as the three point test, and references are made to whether potential treatments meet the three criteria.

In order to meet the aims of the Directive, treatment must meet all three criteria. For example, separation would meet the first two, but in order to comply with regulation 10(1), one of the four objectives of the third criterion must also be met. The four objectives of the third criterion are alternative possibilities; any one of them can be met in order to meet the criterion. For example, some treatments may, in reducing hazardous nature, increase the quantity of waste landfilled (however note Section 9.9.3). Other treatments, such as separation, may reduce the quantity landfilled, but that fraction may be more hazardous. In both cases, one of the four objectives is met.

9.3 Source segregation

The first criterion specifically includes sorting. If, for example, paper and plastic are produced as a mixed waste and then sorted this clearly meets the first criterion. However, where steps are taken to ensure that those two waste streams are kept separate at source, it appears perverse not to accept that as a treatment. Therefore the Government considers that source

segregation is a physical process that could meet the first criterion. The other two criteria must still be met.

9.4 Non-Hazardous waste

The requirement to pre-treat all non-hazardous waste comes into effect on 30 October 2007. The Government will work with the Environment Agency, waste producers and the waste management industry to provide further interpretation of the pre-treatment requirement for non-hazardous waste.

9.5 Characteristics

The Government considers that “characteristics” must be properties of the waste that affect its potential impact on human health or the environment in a landfill. Hence these characteristics must be changed in order to meet the third criterion.

9.6 Third criterion of the “three point test”

9.6.1 Reduce volume

While compaction does reduce the volume of waste, that alone is not enough for it to be considered an acceptable treatment under the three point test. To achieve that acceptability, compaction would also have to change the characteristics of the waste in order to reduce its potential impact on human health or the environment in a landfill.

9.6.2 Reduce hazardous nature

The Government considers that this relates to the hazards listed in Annex III to Directive 91/689/EC and replicated in Schedule 3 to the Hazardous Waste Regulations 2005.

To reduce the hazardous nature of a waste, one or more hazards should be removed. There are two acceptable alternative possibilities. The first is a reduction in hazardous nature from corrosive to irritant, or from very toxic to toxic or harmful, or from toxic to harmful. The second is to remove, for the long term, the risk of one or more hazards being realised. For example, solidification should prevent ingestion of some toxic wastes and this would be regarded as reducing the hazardous nature, even though the waste remains hazardous.

9.6.3 Facilitate handling

The objectives of the Directive relate to the protection of the environment and health during the whole life-cycle of the landfill. The handling in question is that which takes place during the placement of the waste in the landfill, and any foreseeable subsequent handling and excludes handling prior to landfilling.

Preference should be given to treatments aligned with the objectives of the Directive: reducing negative impacts on the environment or risks to health. The change in characteristics that will bring about the facilitation of handling should be such as to result in some reduction in the negative effects on the environment or health arising from the landfilling of the waste. Examples would be treatments that change the characteristics of the waste in terms of leachability, generation of gas, volatile compounds or odour, or emission of dust, and which do so on a permanent basis.

9.6.4 Enhance recovery

The key provision is that the requirement is “in order to” enhance recovery. The common treatment of sorting or segregating will not of itself enhance recovery – there needs to be an intent subsequently to recover one or more of the sorted/segregated fractions. It follows that it is not acceptable to sort wastes and then landfill all the sorted materials.

9.7 Some wastes are already treated wastes

Certain wastes that are landfilled are themselves the product of a waste treatment. The key requirement of regulation 10(1) is that the material has been subject to a process that meets the three criteria for treatment following its recognition as a waste under Directive 75/442/EEC. It is not necessary for the purposes of regulation 10(1) that the treatment take place outside the site of production, or that all wastes currently landfilled receive further treatment. An example of this aspect is to be found in Articles 4(2), 5(2) and 6(2) of the EU Animal By-Products Regulation. These require certain types of animal by-products, after processing in a rendering plant, to be disposed of as waste by burial in a landfill approved under the Landfill Directive.

9.8 Hazardous waste that meets WAC standards

There is a question of whether hazardous wastes that inherently meet the WAC limit values for hazardous waste or stable non-reactive hazardous waste needs to be pre-treated prior to landfill.

The requirement to pre-treat contributes to the aim of reducing the overall impact of landfilling on human health and/or the environment. WAC is aimed at specifying the chemical properties that is actually landfilled in order to minimise the risks posed by individual sites. The consequence is that, even where the waste inherently meets the WAC limit values, pre-treatment must still take place provided there is a treatment available that reduces its quantity or further reduces its hazardous nature.

9.9 The qualifiers of the treatment requirement

9.9.1 Inert wastes

Regulation 10(1) requires treatment unless:

- a) it is inert waste for which treatment is not technically feasible;

Clearly, this derogation only applies to waste that meets the definition of inert waste in Regulation 7(4) of the Regulations.

The decision that treatment is not technically feasible can only be made following a thorough evaluation of the treatment options.

Possible treatments for inert waste are generally physical sorting or conditioning processes to render it suitable for re-use. If a waste is inert and is not suitable for use, even following such a treatment, then it may be said that treatment is not technically feasible and the waste may be landfilled without further treatment.

9.9.2 Other wastes

Regulation 10(1) goes on to say that the treatment requirement may not apply if:

- b) it is waste other than inert waste and treatment would not reduce its quantity or the hazards that it poses to human health or the environment.

Non-inert wastes must therefore be treated if a treatment is available which will reduce the mass to be landfilled or the hazards to human health or the environment. The Government expects that in most cases a treatment will be available which will achieve such a reduction. As derogations from the terms of a Directive are interpreted restrictively, any decision that there is not a treatment available can only be made following a thorough evaluation of the treatment options.

9.9.3 Mixing or diluting waste

Regulation 9(2) provides that:

(2) The operator of a landfill shall ensure that the landfill is not used for landfilling waste which has been diluted or mixed solely to meet the relevant waste acceptance criteria.

The Government considers that simple physical dilution, without any concurrent chemical or physico-chemical changes, is not an acceptable treatment process. For example, the absorption of a liquid into sawdust such that it is no longer a liquid waste, is not acceptable as a pre-treatment for landfill. Dilution of contaminated soil with other soils or minerals outside the excavation process in order, for example, to bring the concentrations of toxic components below those for hazardous waste is also unacceptable.

Mixing of wastes, or of wastes with other materials, such as to achieve a chemical or physico-chemical change in pursuance of the third criterion, is acceptable.

9.9.4 Compliance and enforcement

Regulation 10(1) puts the primary duty of compliance on the landfill operator. Operators should take all reasonable steps to ensure that they accept only waste that has been treated or that does not, by virtue of the qualifiers in regulation 10(1), need to be.

However, waste producers make the initial decisions about the management of their waste and are thus in the best position either to treat the waste or secure its treatment by others.

Section 34 of the Environmental Protection Act 1990 requires waste holders, amongst other things, to prevent any contravention of the section 33 offence for unauthorised disposal or of regulation 9 of the 2000 Regulations, and also to ensure that a written description is transferred such as to enable other persons to avoid such contravention.

It is clear that waste holders and operators will need to work together in order to ensure that the requirements of the Directive are met when waste is to be landfilled. In many cases, the holder will have important information as to the treatment which waste has undergone. Such information will help the operator assess what further treatment is required in order to meet the Directive requirements. If they do not know this information, they may be obliged to reject the waste or to treat it themselves thereby increasing the disposal costs. In addition in cases where the waste holder knows that the operator will be relying on his description of the treatment carried out in order to meet Directive requirements, section 34 requires them to transfer the information in such form as to enable the operator to comply with his obligations. The waste description requirements of the Duty of Care will be supplemented by a consultation on these and other changes to the Duty of Care planned for the near future.

Whilst the correct use of Hazardous Waste Regulation consignment notes may provide some assistance in determining whether a waste has been treated, this will not always be the case, for example, source segregated wastes.

The Government therefore considers that, as part of the wider requirements of waste acceptance procedures:

- Landfill operators should liaise with waste producers or holders to make them aware of whether the treatment requirement yet applies to their landfill, and work with them to establish that the waste will meet the requirements and hence can be landfilled.
- Waste producers and any subsequent holders should transfer written information on or with the consignment note as to whether the waste has yet been treated, if so what treatment has been applied, and any reasons why it is considered that treatment is not required.

9.10 Environment Agency Guidance

Waste holders and landfill operators should have regard to technical guidance the Environment Agency has produced^{25a,25b}.

^{25a} ENVIRONMENT AGENCY (2003) Regulatory Guidance Note 13 Guidance on the waste treatment requirements of Article 6(a) of the Landfill Directive , Environment Agency, Bristol in preparation.

^{25b} ENVIRONMENT AGENCY(2005) Guidance for waste destined for disposal in landfills, Environment Agency, Bristol

10. REGULATION 10(2) AND (3): WASTE ACCEPTANCE PROCEDURES

10.1 Introduction

The Landfill Directive has set waste acceptance procedures (WAPs) on the wastes that can go to landfill. Waste acceptance procedures comprise of waste acceptance criteria (WAC) waste characterisation, testing and on-site verification. The WAC are limits that have been derived by modelling the impacts of a typical landfill on groundwater and are thus aimed at avoiding groundwater pollution.

Regulations 10(2) and (3) of and Schedule 1 to the 2002 Regulations provide these criteria and procedures for the acceptance of waste. The 2002 Regulations came into force in June 2002.

Amendment Regulations 5 and 6 of and Schedule 1 to the 2004 Regulations implement Council Decision 2003/33/EC establishing new waste acceptance criteria and procedures by replacing Regulation 10(2) and (3) of the 2002 Regulations and substituting a new Schedule 1.

Regulations 13 and 14 of the 2005 Regulations further amend the waste acceptance criteria to be met by granular waste and set new waste acceptance criteria for monolithic waste and Polycyclic Aromatic Hydrocarbons (PAH) values for inert waste. Regulations 15 and 16 set out the requirements for the sampling and testing of these wastes.

The 2004 and 2005 Regulations have applied since 16 July 2005.

10.2 The identification of hazardous wastes

Since 31 August 2002, waste identified as hazardous by the European Waste Catalogue (EWC) may only be accepted at a landfill site classified as for hazardous waste. The EWC, which is transposed by the List of Waste Regulations 2005 (as amended), identifies entries for hazardous waste, and are subject to the requirements of the Hazardous Waste Regulations 2005. These Regulations require that each movement of hazardous waste is accompanied by a uniquely numbered consignment note, which identifies the waste and its hazards.

The Government expects waste holders to have regard to guidance produced by the Environment Agency regarding the use of List of Waste codes. The Agency is developing tools to assist with the allocation of the correct code both on waste consignment notes and in relation to licences and permits.

WAC Issues

10.3 Hazardous wastes and WAC

From 16 July 2005, hazardous wastes being landfilled must meet the relevant WAC. Regulations are now in place to control the nature of hazardous waste that can be landfilled with the aim of reducing the environmental impact of landfill. For hazardous wastes there are numerical limit values for leachable inorganic substances, organic content along with standards for physical stability. These exist for both granular and monolithic hazardous waste. Details of the numerical values are contained in the respective 2004 and 2005 Regulations.

10.4 Three times derogation from WAC limits on inorganic content for hazardous wastes

Under certain circumstances hazardous waste landfills may accept wastes that exceed the three times WAC leaching limit values on inorganic components. The 2005 Regulations allow the Environment Agency to include conditions in a permit authorising limit values for specific parameters (other than Dissolved Organic Carbon) up to three times higher for specified wastes accepted in a landfill.

Landfill operators need to apply to the Environment Agency to vary their permit if they wish to accept such wastes. In order that the Environment Agency can approve the acceptance of waste by up to three times WAC, the landfill operator must demonstrate that the emissions from the landfill will not present an additional risk to the environment as a result of accepting this waste. This will take the form of a revised site-specific risk assessments with particular emphasis on the hydrogeological risk assessment (HRA). The leachate source term in the HRA will need to accurately reflect the additional contaminant load resulting from acceptance of the waste in question. This approach can only be used up to a maximum of three times the WAC limit values in the 2005 Regulations. It cannot be applied to values that relate to the organic content of the waste.

We do not expect the use of this option to be the norm as most wastes should be treatable to meet the WAC limits. The Government is under an obligation to report all instances where landfill permits authorise this derogation to the European Commission.

10.5 Limits on organic content

There are three parameters set out in the 2005 Regulations that can be used to limit the organic content of hazardous waste destined for landfill. The three parameters are Dissolved Organic Carbon (DOC), Total Organic Carbon (TOC) and Loss on Ignition (LOI). The 2005 Regulations limit the TOC content on the following wastes:

- granular hazardous wastes landfilled at hazardous waste landfills;
- monolithic hazardous waste entering a treatment plant;
- SNRHW at non-hazardous waste landfills and
- non-hazardous wastes deposited in these cells.

Landfill operators can use either of the following measures to meet the WAC for organic content for granular hazardous waste entering a landfill or hazardous waste entering a monolithic treatment plant:

- i) the waste must show LOI of 10% or less or
- ii) TOC content of no greater than 6%.

The Environment Agency can use its discretion to allow a higher level of TOC for a specified hazardous wastes going to specific landfill sites provided the waste does not also exceed the limit for DOC that is set out in Table 7 of the 2005 Regulations.

Table 5 of the 2005 Regulations give the limit value for organic content of granular SNRHW and any non-hazardous waste deposited in the same cells at non-hazardous landfills. These wastes must normally have a TOC of 5% or less. However, the Environment Agency can permit a higher TOC limit for specified wastes at specific sites provided that the alternative DOC value set out in the 2005 Regulations is not exceeded. Alternative waste treatment options should be considered prior to the application of this provision.

10.6 Inert wastes – Polycyclic Aromatic Hydrocarbons (PAHs)

Council Decision (2003/33/EC) requires Member States to set a limit for PAH content of wastes accepted for disposal at inert waste sites. Materials disposed of at inert landfills that may contain PAHs include soils and stones, concrete, bricks and tiles. Soils are the most likely source of PAHs.

The criteria for waste accepted at an inert waste landfill must meet the relevant WAC from the date the site receives a PPC permit. Regulations 10 and 11 of the 2005 Regulations implement this provision. From 15 July 2005, a single limit value of 100 mg/kg for the 17 specified PAHs applies for waste acceptable at landfills for inert waste.

10.7 Agency guidance

General guidance aimed at waste producers and managers disposing of waste to landfill has been published by the Environment Agency²⁶. This is supported by technical guidance on the sampling and testing of wastes to meet landfill waste acceptance procedures²⁷. The Agency has also produced a specific briefing landfill Waste Acceptance Criteria²⁸ and set out its position for the use of higher landfill waste acceptance criteria limit values for hazardous waste²⁹. These are updated as necessary.

²⁶ ENVIRONMENT AGENCY (2005). Guidance for Waste Destined for Disposal in Landfills – Interpretation of the Waste Acceptance Requirements of the Landfill (England and Wales) regulations 2002 (as amended), Environment Agency, Bristol (under review).

²⁷ ENVIRONMENT AGENCY (2005) Guidance on the Sampling and Testing of Wastes to meet landfill waste acceptance procedures, version 1, April 2005.

²⁸ ENVIRONMENT AGENCY (2005). Brief Guide to Landfill Waste Acceptance Criteria, version 1, July 2005.

²⁹ ENVIRONMENT AGENCY (2005) Guidance for use of Higher Landfill Waste Acceptance Criteria Limit Values for Hazardous Waste, version 1, July 2005.

11. REGULATION 11: CHARGING THE COSTS OF LANDFILL

Regulation 11 requires that:

The operator of a landfill shall ensure that the charges it makes for the disposal of waste in its landfill covers all of the following –

- a) the costs of setting up and operating the landfill;
- b) the costs of the financial provision required by regulation 4(3)(c) of the 2000 Regulations; and
- c) the estimated costs for the closure and after-care of the landfill site for a period of at least 30 years from its closure.

The Government does not believe the Environment Agency needs to interfere directly with the commercial decisions of individual companies in applying this regulation. Operators of landfills are private sector companies who are performing this role for profit and are required separately to ensure that financial provision is in place to deal with the costs of closure and aftercare. It follows that the relevant costs will be met by the prices charged, including in-house sites where no specific charge for waste is made.

12. REGULATION 14: CONTROL AND MONITORING

Regulation 14 introduces control and monitoring procedures, including Schedule 3. Operators should have regard to Agency guidance^{30, 31, 32, 33, 34, 35} produced in this respect.

³⁰ ENVIRONMENT AGENCY (2003) Guidance on the Monitoring of Landfill Leachate, Groundwater and Surface Water. Environment Agency, Bristol.

³¹ Environment Agency (2004) Guidance on the management of landfill gas; in preparation Environment Agency, Bristol.

³² Environment Agency (2004) Guidance for monitoring landfill gas surface emissions; in preparation. Environment Agency, Bristol.

³³ Environment Agency (2004) Guidance for monitoring landfill gas engine emissions. In preparation. Environment Agency, Bristol.

³⁴ Environment Agency (2004) Guidance for monitoring enclosed landfill gas flares. In preparation,. Environment Agency, Bristol.

³⁵ Environment Agency (2004) Guidance for monitoring trace components in landfill gas. In preparation. Environment Agency, Bristol.

13. REGULATION 15: ASPECTS OF CLOSURE

13.1 Introduction

Regulation 15 sets out requirements for closure and aftercare procedures, including the three circumstances when the closure procedure should begin:

- a) when the conditions specified in the permit (licence) are satisfied;
- b) when the Agency approves the initiation of the closure procedure following a request from the operator; or
- c) by reasoned decision of the Agency which shall be set out in a closure notice served on the operator in accordance with regulation 16.

Regulation 16 sets out requirements for the issue of closure notices in accordance with regulation 15(3)(c).

Schedule 4, paragraph 1(6) sets out the following provisions in relation to existing sites:

(6) Subject to sub-paragraph (7), where:

(a) the operator notifies the Environment Agency that he does not propose to accept waste for disposal after 16th July 2002;

(b) the Environment Agency decides, following the submission by the operator of a conditioning plan, that there is no reasonable prospect of the landfill or part of it meeting the relevant requirements of these Regulations; or;

(c) the operator fails to submit a conditioning plan as required by sub-paragraphs (3) and (4) or to notify the Agency as required by sub-paragraph (5),

Schedule 4, Paragraph 1(9A) sets out the following provision:

(9A) Where following receipt of a notice under sub-paragraph (9)(a)-

(a) the operator notifies the Environment Agency that he does not propose to accept waste for disposal after the date specified in the notice served on him under sub-paragraph (9) as the end of the period within which an application for a landfill permit under regulation 10 of the 2000 Regulations must be made;

(b) a determination date for an application for a landfill permit under regulation 10 of the 2000 Regulations is reached which falls within sub-paragraph (b) or (c) of the definition in paragraph 6 of Part 1 of Schedule 3 of those Regulations; or

(c) the operator fails to submit an application for a landfill permit under regulation 10 of the 2000 Regulations in accordance with the notice described in sub-paragraph (9) (a);

The Environment Agency shall ensure closure of the landfill site as soon as possible (in whole or in part) in accordance with regulation 15. Schedule 4, Paragraph 1(9B) says-

(9B) Where a landfill permit is refused pursuant to an application made under sub-paragraph (9), the Agency shall ensure closure (in whole or in part) in accordance with regulation 15 as soon as possible after the determination date for that part of the landfill site.

There is a need for clarification on three issues in relation to closure:

- the meaning of "close as soon as possible";
- the implications of closure without a PPC permit being granted;

- the distinction between cessation of operations and “definite closure”.

These are dealt with in sections 13.2 - 13.4.

13.2 The meaning of “close as soon as possible”

Paragraph 1(6) of Schedule 4 deals with the closure of existing landfills which cannot be brought into line with directive requirements. It requires the Environment Agency to ensure that closure of the landfill site (in whole or in part) takes place as soon as possible and not later than 16 July 2009, a requirement under the Landfill Directive. Following the amendment regulations, this is also dealt with in paragraph 1(9A) and (B).

The long transitional period granted for existing sites makes clear that the requirement to close as soon as possible should be read in context. It recognises that it is not possible to simply close all existing landfills overnight because the waste disposal crisis which that would engender which would cause more environmental harm. Instead the directive makes clear the closure of existing landfills should be managed within a reasonable time frame taking into account these wider considerations as well as specific ones relating to the site. Regulation 16 requires that closure notices should specify, *inter-alia*, the steps to be taken by the operator, and the period in which they must be taken.

In determining when the landfill should be closed, the Government expects the Environment Agency to have regard to the following issues:

- The protection of human health and the environment.
- The achievement of an acceptable landform.
- The availability of alternative waste management facilities
- The funding of any necessary remediation.
- Equitable treatment of landfill operators.

13.3 Protection of the environment and human health

One likely reason for closure of an existing site is that it is not possible to eliminate an identified risk of unacceptable discharges or emissions to the environment in order to comply with the Regulations and the Groundwater Regulations. It may also be to protect habitats under the Habitats Regulations.

In connection with the cessation of the acceptance of waste, it is likely that remediation measures will be required in connection with any unacceptable discharges. These measures will need to be formulated and agreed.

13.4 Landform

Closure should take place as soon as an acceptable landform can be achieved. An acceptable landform will be one which is compatible with any remediation requirements such as capping and surface gradients in order to prevent pollution or harm to human health and which has been arrived at in consultation with the Waste Planning Authority.

The operator should discuss a suitable revision of the agreed landform with the WPA, and approval sought as appropriate to the planning permission.

13.5 Availability of alternatives

The Environment Agency should consider the availability of alternative outlets for the waste. This will depend upon the type and quantity of waste and upon the proximity principle, but the loss of any significant landfill is bound to impact on the local and regional waste strategy. An assessment of the scale and nature of the environmental impacts of early closure and the need to close due to compliance with the directive should be discussed and documented with the WPA.

13.6 Funding of Restoration and Remediation

Operators should have a business plan whereby the revenues provide for the restoration and aftercare of the landfill. An earlier than anticipated closure may leave a shortfall of funds for these purposes. Service of a closure notice implies an unacceptable discharge, in need of remediation, and the Agency should therefore consider the options for remediation.

13.7 The assessment process

Although the above issues should be considered by the Environment Agency, they should not be given equal weight: priority should be given to protection of the environment and human health. Nevertheless, the other issues will bear upon how quickly the landfill can be closed and will have to be weighed according to the specific circumstances of each site.

The Environment Agency should ensure that such assessments accord with the principles of good regulation and are therefore consistent, proportionate, transparent and targeted.

13.8 Closure without a PPC permit

For sites that have submitted a conditioning plan, the Environment Agency will determine on the basis of existing knowledge of the site whether it considers that a site will be able to meet the relevant requirements of the Regulations. This decision will principally be based on whether there is existing groundwater pollution arising from the site and may be influenced by the engineering and operational measures proposed in the conditioning plan and the requirements of Schedule 2.

During permit determination, an assessment of environmental risks in the short, medium and long-term may also identify existing sites with a long life span that do not meet the requirements of paragraphs 3(2)(a) and 3(4)-(7) of Schedule 2 to the Regulations (i.e. the requirements for liners). These sites may be refused a permit. It is likely to be more difficult for large, non-cellular sites to put adequate measures in place for future filling and therefore these are more likely to be subject to permit refusal.

In these circumstances the Agency should apply the closure requirements of the Regulations to the closure of the landfill via the closure notice.

13.9 Cease operating, or definite closure?

Closure under the Regulations is not the same as temporarily ceasing to accept waste, and operators must understand the difference for the purposes of both compliance and charging.

Where closure is under point (c) of regulation 15(3) the operator will have received a "closure notice" from the Agency.

A landfill cannot, under any of the three conditions for beginning closure be definitively closed until the operator has submitted a closure report to the Environment Agency, the Environment Agency has assessed the information contained within the report, inspected the site and notified the operator in writing that it approves the closure.

These steps will indicate whether a site has been definitely closed (and is then subject to aftercare requirements). If not, then it must be regarded as operational, even if it has stopped accepting waste.

As part of the closure procedure, the Environment Agency should consider modification of the permit to secure any necessary aftercare requirements. The permit should not allow any deposits of waste after definite closure, and a new permit application will be required for any proposals for such deposits.

Under the current Agency charging scheme for Waste Management Licences, closed landfills are charged at a lower rate of subsistence. The definition of "closed landfill" for the purposes

of subsistence charging is not the same as “definite closure” for the purposes of the Regulations.

For sites, which close, or have closed, after 16 July 2001, the full subsistence charge under the PPC charging scheme³⁶ will apply, until such time as the Agency agrees definite closure.

Agency guidance as follows:

ENVIRONMENT AGENCY (2005) Landfill Directive Regulatory Guidance Note 7: Requirements for Landfills that stop operating: closure and aftercare, Version 2. Environment Agency, Bristol.

³⁶ ENVIRONMENT AGENCY (2003) Charging scheme for pollution prevention and control (PPC) 2003/2004, and ENVIRONMENT AGENCY (2003) Draft charging scheme for pollution prevention and control (PPC) 2004/2005, Environment Agency, Bristol.

14. REGULATION 19: PROFESSIONAL TECHNICAL DEVELOPMENT AND TRAINING

Regulation 10(4)(a) of the 2000 Regulations provides that a landfill permit shall not be granted unless the Agency is satisfied that the applicant is a fit and proper person to carry out that activity.

Regulation 4 of those Regulations defines "Fit and proper person". Regulation 4(5)(b) has the effect of continuing the WMLR 94 Regulations 4 and 5 provisions in this respect (although the deemed competence provisions do not continue under PPC).

Regulation 19 and Schedule 5, para 3(c) of the Regulations amend the 2000 Regulations, regulation 4 to add:

He and all staff engaged in carrying out that activity will not be provided with adequate professional technical development and training;

This gives effect to the full requirements of Article 8(a)(2) of the Landfill Directive.

The significant differences from WMLR 94 are that:

- the training and development must be kept under review as an ongoing process; and
- the requirement applies to all staff carrying out that activity.

Recital 31 of the Directive explains the Directive requirement:

....to ensure the proper application of the provisions implementing this Directive throughout the community, and to ensure that the training and knowledge acquired by landfill operators and staff afford them the necessary skills;

The Government considers that this indicates that the necessary training and development are those necessary to enable the staff to carry out their duties so as to implement the permit conditions. It does not mean that all staff must be trained in all aspects of management and operation of the landfill.

Agency guidance regarding the assessment of competence in relation to the ability to understand and implement the permit should therefore remain valid, but must extend to all relevant staff.

Section 4.1.8 of Form IPPC Landfill Part B deals with competence and training, and operators must provide the Agency with the specified details.

The Government endorses the ISO 14001 standard for environmental management systems, which includes training requirements similar to those of the Regulations. The use of the standard as a basis for the applicant's management system should therefore ensure compliance with the requirement for adequate professional technical development and training. Other environmental management standards may also meet this requirement and if so, will be equally acceptable.

15. ENFORCEMENT

The Government expects the Environment Agency to apply the principles of good regulation: proportionality, accountability, consistency, transparency and targeting. The Environment Agency Enforcement and Prosecution Policy³⁷ is based on those principles, and should apply to the use of enforcement provisions within the Regulations (including the 2000 Regulations).

The Government expects the Environment Agency to review its function specific guidance³⁸ under the policy to ensure that the sections on waste management and regulation and on pollution prevention and control reflect the application of the 2000 Regulations and 2002 Regulations (as amended) to landfills.

³⁷ ENVIRONMENT AGENCY (1998). Enforcement and Prosecution Policy. Environment Agency, Bristol

³⁸ ENVIRONMENT AGENCY (2005) Guidance for the Enforcement and Prosecution Policy, Version 11. Environment Agency, Bristol.