

Manual of European Environmental Policy

The following pages are a section from the Manual of European Environmental Policy written by the Institute for European Environmental Policy.

The Manual was published by Earthscan/Routledge from 2010 to 2012. It was designed as an on-line interactive reference work and annual printed versions were also produced.

This section is the text of the Manual as published in 2012. It is therefore important to note the following:

- The contents have not been updated since 2012 and no guarantee is given of the accuracy of the contents given potential subsequent developments.
- The sections include links to external websites (e.g. to legal texts). These links continue to work as long as those links are not broken by those websites.
- The sections also include the original links that enabled interactivity within the published on-line version of the Manual. These links no longer work.

© Copyright IEEP 2014

The Manual should be cited as follows:

Farmer, A.M. (2012) (Editor). Manual of European Environmental Policy. 1043pp. Routledge, London.

Landfill

1999/31/EC (OJ L182 16.07.1999)	Directive on the landfill of waste
Proposed 5.3.97 – COM(97)105	
2003/33/EC (OJ L11 16.1.2003)	Decision establishing criteria and procedures for the acceptance of waste at landfills
Proposed 20.9.2002 – COM(2002)512	
Directive 2011/97/EU (OJ L328 10.12.2011)	Directive amending Directive 1999/31/EC as regards specific criteria for the storage of metallic mercury considered as waste
Legal base	Article 14 TFEU (originally Article 189 TEC)
Binding dates	
Entry into force	16 July 1999
Formal compliance	16 July 2001
Setting up of national strategy for implementation of reduction of biodegradable waste going into landfill	16 July 2003
Achievement of 75 per cent reduction target	16 July 2006 (or four years later)
Achievement of 50 per cent reduction target	16 July 2009 (or four years later)
Achievement of 35 per cent reduction target	16 July 2016 (or four years later)
Compliance by existing landfills	16 July 2009
Articles 4, 5, 11 and Annex II to apply to landfill of hazardous waste	16 July 2002
Article 6 to apply to landfill of hazardous waste	16 July 2004

Purpose of the Directive

Directive 1999/31/EC, commonly known as the Landfill Directive, aims to tackle emissions of methane by limiting the amount of biodegradable waste going to landfill. It also aims to encourage the prevention, recycling and recovery of waste by limiting its final disposal through landfill. The Directive intends to safeguard the health of people and the environment by ensuring the proper licensing, monitoring and aftercare of new and existing landfill sites. In so doing, it also aims to limit the shipment of waste between Member States by ensuring that adequate standards are applied to landfill in every country, thereby preventing the cheap dumping of waste in Member States with poor controls. In addition, by requiring the charges levied by operators to reflect the continuing costs of landfill, including clean up and aftercare, the Directive seeks to make other, apparently more expensive, methods of waste disposal more attractive to waste producers.

Summary of the Directive

Reduction of waste going to landfill

The Directive requires Member States to draw up by 2003 a national strategy for reducing the amount of biodegradable waste going into landfill. This strategy must include measures to

bring about achievement of the targets set out in Article 5 by means of recycling, composting, biogas production or materials/energy recovery in particular. Reduction of biodegradable municipal waste going to landfill must take place as follows:

- a reduction to 75 per cent of 1995 levels by 2006;
- a reduction to 50 per cent of 1995 levels by 2009; and
- a reduction to 35 per cent of 1995 levels by 2016.

Those Member States sending more than 80 per cent of their municipal waste to landfill in 1995 will be permitted to postpone attainment of the above targets by up to four years. National strategies must be communicated to the Commission which should report to the Parliament and Council by January 2004 on the content of these strategies. Member States must also report to the Commission on the implementation of the Directive (Article 15). Decision [2000/738/EC](#) sets out the form of questionnaire to be used by Member States. As a result of a report from the Commission on the practical implementation of the first two targets, the third target may be reviewed by the Council by 2014 at the latest.

Waste not acceptable in landfills

Member states must ensure that the following waste is not accepted for landfill:

- liquid waste;
- waste which is explosive, corrosive, oxidizing, highly flammable or flammable;
- infectious clinical waste;
- whole tyres (from 2003) and shredded tyres (from 2006), except large tyres and bicycle tyres; and
- any other waste that does not fulfil the acceptance criteria set out in Annex II of the Directive.

Classes of landfill

All landfills must be classified in one of three ways: for hazardous waste, for non-hazardous waste or for inert waste. The Directive gives definitions of these terms. Hazardous waste means any waste covered by Hazardous Waste Directive [91/689/EC](#). Inert waste means waste that does not undergo any significant physical, biological or chemical transformations. It will no longer be permissible to mix different types of waste at one landfill (co-disposal) except in very limited circumstances (Article 6).

Pre-treatment of waste

All waste must be treated before it goes into landfill, unless it is inert waste for which no treatment is technically feasible, or any other waste where treatment would not bring about a reduction in the quantity or hazards to health or the environment. Treatment is defined as 'physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery'.

Permits

The Directive lays down various requirements for the content of an application for a landfill permit (Article 7) and the content of the permit (Article 9). It also specifies various pre-conditions which must be satisfied before a permit may be issued (Article 8). For example, adequate provision such as financial security must be made by the landfill operator to cover the obligations of the permit, including aftercare requirements. All relevant requirements of the Directive, including technical annexes, must be complied with.

Cost of landfill

Member States must also make sure that the estimated costs of setting up, operating, closure and aftercare of the site for at least 30 years are reflected in the price charged by the operator for accepting waste for landfill. This measure is aimed at ensuring that the true cost of landfill is reflected in its price to the waste producer, so that it is not treated as a cheap option.

Operating and closure procedures

The Directive sets out the reception procedures (Article 11), control and monitoring procedures (Article 12) and closure and aftercare procedures (Article 13) which must be followed by operators of landfill sites. Annex I to the Directive sets technical standards covering issues such as leachate management and gas control. For example, gas from all landfills receiving biodegradable waste must be collected and used or flared. Annex II covers waste acceptance criteria and procedures. Annex III deals with control and monitoring during operation and aftercare. Further work is envisaged, for example, to develop a European standard for sampling waste arriving at landfill sites. Articles 16 and 17 of the Directive cover the procedure by which technical standards will be developed by the Committee established under the Waste Framework Directive [75/442/EEC](#) and adopted by the Commission from time to time.

Existing sites

Article 14 deals with existing landfill sites. Operators of existing sites have until 2002 to present to competent authorities a 'conditioning plan' dealing with any corrective measures needed to comply with the Directive. Competent authorities must take a 'definite decision' as to whether these sites may continue to operate, and must close down 'as soon as possible' sites which are not permitted to continue to operate. Existing landfills will have a maximum of eight years to carry out the necessary work to ensure compliance with the Directive, with certain tighter deadlines for hazardous waste landfills.

Exemptions

The Directive contains certain exemptions. For example, the definition of landfill in Article 2 does not include storage of waste prior to recovery or treatment for a period of less than three years. Article 3 excludes the following:

- the spreading of sewage or dredging sludges on soil for fertilization;
- the deposit of non-hazardous dredging sludges alongside waterways or in surface waters;

- the use of suitable inert waste for construction or restoration of landfills;
- the deposit of unpolluted soil and inert waste from mineral extraction or quarrying. In addition, Member States may exempt the deposit of other non-hazardous waste arising from these activities;
- Member States may exempt landfills for non-hazardous or inert waste below a certain capacity serving islands or isolated settlements, as defined in Article 2 of the Directive; and
- Member states may exempt underground storage from certain provisions of the Directive.

Criteria and procedures for acceptance of waste at landfills

Landfill site operators are to classify sites as hazardous, non-hazardous or inert by 16 July 2002. However, the acceptance criteria for hazardous and non-hazardous waste, which were needed to support this requirement, were only finalized by the Commission in December 2002 in Decision 2003/33/EC. That Decision outlines criteria for the type of waste that can be accepted at each of the defined sites and for underground storage, sets out strict EU-wide pollution leaching limit values, and defines testing methods. The criteria are to be applied by Member States by 16 July 2005. Member States will be permitted to set up to three times higher limit values for some parameters, that is less strict standards, provided that a case-by-case risk assessment is carried out which shows that this would pose no additional environmental impact or risk. In accordance with the Treaty, Member States may also introduce more stringent measures than those set out in the Decision (provided that they are compatible with the Treaty and are notified to the Commission), as well as limit values for components that are not included.

Directive 2011/97/EU

Directive [2011/97/EU](#) amended the Landfill Directive, inserting specific criteria for the storage of metallic mercury considered as waste into Annexes I (technical standards), II (waste acceptance criteria and procedures) and III (control and monitoring during operation and aftercare).

Development of the Directive

In 1990 the Council adopted a Community Strategy on Waste Management which stressed that the final disposal of waste should be an option of last resort. A draft Directive dealing with landfill followed in 1991. After lengthy discussion the proposed Directive was rejected in 1996 by the European Parliament on the grounds that it offered insufficient environmental protection. In particular, the Parliament objected to the derogation for areas with a population density of less than 35 persons per square kilometre, which effectively excluded 50 per cent of Community territory from the Directive's scope. Because the Member States were not, at that stage, unanimous about the controls to be introduced, this objection by Parliament effectively killed off the proposed Directive.

The Commission remained concerned about landfill in the Community and received numerous complaints on the subject. In particular, in September 1996, 100,000 tonnes of waste from a landfill near La Coruña in Spain slipped down a hillside endangering the nearby town and threatening to spill into the sea. In addition, it was assessed that some 32 per cent of

the overall release of methane into the atmosphere from the Community arises from decomposing waste in landfills. Very little of this methane was being used for energy or even burnt off and it was concluded that limiting the amount of such waste being landfilled in the first place would be the most effective approach. A further concern was the widespread failure to implement the provisions of the Waste Framework Directive ([75/442/EEC](#)), in particular by failing to draw up waste management plans or to ensure effective permitting of waste disposal such as landfill.

A draft proposal for a new Directive was prepared in October 1996. This suggested banning, within five years, the landfill of waste with more than 10 per cent 'total organic content'. This aspect of the draft proved highly controversial and was eventually blocked by the Commission. A new proposal for a landfill Directive, excluding this provision, was adopted by the Commission in March 1997. This proposal contained targets for a phased reduction in the overall amount of biodegradable municipal waste going to landfill. The targets in this original proposal required a reduction to 75 per cent of 1993 levels by 2002, 50 per cent of 1993 levels by 2005 and 25 per cent of 1993 levels by 2010. They were therefore much tighter than those eventually agreed.

Other new developments in this proposal included a requirement for the pre-treatment of waste, a ban on landfilling tyres, a requirement for landfill charges to reflect the true cost of aftercare and an immediate ban on co-disposal of hazardous and non-hazardous waste.

The proposed Directive was due to be considered by the European Parliament at first reading in late 1997. However, this reading was delayed until after a special hearing on waste policy scheduled for November 1997. In the event, therefore, a meeting of the Council of Ministers took place in December before the first reading. At this meeting, the Council purported to reach a Common Position regarding the proposed Directive before the opinion and proposed amendments of Parliament had been received. This approach was not only a breach of procedure but was seen by MEPs as a snub to the Parliament since it sent a clear message that the Council was not intending to take into account the views of Parliament. The Commission was also unhappy about the Council's action on the basis that it considerably weakened the proposed Directive. In particular, the Council had relaxed the targets for reduction of landfill to those which are now contained in the Directive. Additional changes to the original Commission proposal agreed by the Council at the December meeting included:

- extending the scope of the isolated settlement exemption;
- extending the definition of temporary storage from one to three years;
- allowing an exemption for non-hazardous waste arising from mining operations;
- allowing underground storage, for example in salt mines, to be excluded from the ambit of the Directive;
- allowing limited co-disposal of hazardous and non-hazardous waste;
- extending the time limit for existing landfills to comply with the Directive from five to eight years; and
- deleting reference to a minimum distance for landfills from residential areas.

The Parliament completed its first reading in February 1998, voting for various amendments to the proposed Directive, and leaving the targets in the original proposed Directive untouched. Proposed amendments from the Parliament included a call on the Council to agree fiscal measures such as a tax on waste going to landfill, an obligation on Member States to close all landfills which had not been licensed under the Waste Framework Directive

75/442/EEC, and a specific liability on landfill operators for at least 30 years after closure of a site.

In confirming its Common Position in March 1998 the Council rejected most of the Parliament's proposed amendments, although it adopted a suggestion that Member States should inform the Commission about the type and volume of waste going to exempted sites. In particular, it stuck to the more lenient targets agreed in December 1997.

The Parliament's second reading took place in February 1999. MEPs were now suggesting a final 'compromise' target which would reduce the amount of biodegradable waste sent to landfill to 25 per cent of 1995 levels by 2016, with a maximum of two years further extension for those Member States heavily dependent on landfill. It persevered with many of its previous amendments, and was largely backed by the Commission which incorporated many of them in its revised proposal. However, under the cooperation procedure, the Council was able to override these suggested amendments by maintaining unanimity on its Common Position when the Directive was adopted in April 1999.

Implementation of the Directive

A list of measures transposing the Directive in the Member States can be found in their [national execution measures](#).

Member States must report regularly on the implementation of waste legislation. Reports are sent to the Commission every three years and cover several pieces of waste legislation. To date three reports have been adopted by the Commission on implementation of the Landfill Directive: ([COM\(2005\)105](#)), adopted in March 2005 and summarizing the national strategies for the reduction of biodegradable waste going to landfills; ([COM\(2006\)406](#)), adopted in July 2006 and covering the period 2001–2003; and ([COM\(2009\)633](#)), adopted in November 2009 and covering the period 2004–2006.

The most recent report shows that the practical implementation of the Landfill Directive remains 'highly unsatisfactory'. Some of the Member States which joined the EU after 2004 still rely heavily on landfilling due to lack of alternative waste management infrastructure. Several of the older Member States are still failing to efficiently divert biodegradable waste from landfills. There are some more positive trends, however: a landfill ban for waste tyres has increased tyre recovery to 95 per cent; and several Member States report reductions in the quantity of organic waste going to landfill. The main implementation problems are set out in Table 1.

Table 1. The main implementation issues in the Landfill Directive 1991/31/EEC

Implementation issue	Member State reporting comments
16 July 2009 deadline for compliance by existing landfills	Risk that a vast majority of Member States will not meet the deadline.
Diversion of biodegradable municipal waste from landfills	Only nine Member States report having met the 2006 targets for the diversion of biodegradable municipal waste from landfills. Some Member States do not have a definition for ‘municipal waste’. Information/data provided by Member States is not comparable due to differences in the nature/detail of reporting.
Capture of, and energy production from, landfill gas	This appears insufficient – Many Member States carry out energy production from landfill gas only where ‘feasible’ or ‘economical’.
Exemptions from requirements	Many Member States vary the need for monitoring depending upon a landfill's characteristics, but more information is needed on precisely how such assessments are made and the criteria used to determine exemptions. Around half of Member States exempt inert landfills from at least some requirements. It is not possible to ascertain if waters and leachate are effectively controlled across the EU.
Treatment of inert landfills	Differing approaches in Member States and lack of information about precise practices in some Member States.

Enforcement and court cases

The Commission continues to open a significant number of infringement cases against Member States for bad transposition or implementation of the Directive. The Commission declares that it receives on a daily basis a vast number of complaints related to illegal landfills lacking the permits required by EU waste legislation. These complaints demonstrate the general and persistent nature of significant implementation deficiencies across much of the EU.

In 2009, 13 non-conformity cases and 11 bad application cases were pending against Member States related to the Directive. In response, the Commission has launched so-called ‘horizontal’ infringements and court cases addressing the lack of national infrastructures and effective enforcement measures. These actions use vast numbers of individual cases as illustrations, allowing problems to be solved in more places than focussing only on individual landfill sites.

The following cases specifically concerning the Directive have been decided by the ECJ:

- [C-423/02](#) 16.10.2003. This was a judgement against the United Kingdom for failure to fulfil its obligations under Article 18 of the Directive (transposition into national law).
- [C-422/06](#) 10.04.2004. This was a judgement against Italy for failure to properly fulfil its obligations under Articles 2 to 14 of the Directive. Italy argued that it was awaiting adoption of a related Decision to transpose both simultaneously, but this was rejected

by the Court as the grounds relied on by Italy (to await the adoption of Decision 2003/33/EC) were judged to be not well founded.

- [C-6/03](#) 14.04.2005. This was a ruling related to interpretation of Article 5 of the Directive (waste and treatment not acceptable in landfills). The Court ruled that it was not contrary to Article 5 for a domestic law to: fix limits in respect of the acceptance of biodegradable waste for landfill lower than those fixed by the Directive; fix earlier time limits than those under the Directive; apply not only to biodegradable waste but also to non-biodegradable organic substances; and apply not only to municipal waste but also to waste that may be disposed of as municipal waste.
- [C-361/05](#) 24.05.2005. This was a judgement against Spain for failure to adopt provisions to apply the requirements of the Directive to certain specific waste tips.
- [C-135/05](#) 26.04.2007. This was a judgement against Italy for failure to fulfil its obligations under Article 14(a) to (c) of the Directive (existing landfill sites). The case related specifically to hazardous waste; at a considerable number of tips in the country the site operators had not ensured the recovery or disposal of waste in such a way as not to endanger human health and not to use processes or methods which could harm the environment.
- [C-423/05](#) 29.05.2007. This was a judgement against France for failure to fulfil its obligations under Article 14(a) to (c) of the Directive (existing landfill sites).
- [C-286/08](#) 10.9.2009. This was a judgement against Greece for a breach of Articles 1(2) and 6 of Directive 91/689/EEC on hazardous waste (and Articles 5(1) and (2), 7(1), 4 and 8 of Directive 2006/12/EC on waste; and Articles 3(1), 6 to 9, 13 and 14 of Council Directive 1999/31/EC on of 26 April 1999 on the landfill of waste). It related to a failure to draw up an adequate hazardous waste management plan and to establish an integrated and adequate network of disposal installations for hazardous waste.
- [C-120/09](#) 17.12.2009. This was a judgement against Belgium for failure of the Walloon Region to transpose Article 2(f), (j) and (k), and point 4C of Annex III of the Directive (the concept of ‘underground storage’, ‘landfill gas’ and ‘eluate’, and the determining of trigger levels to identify a significant adverse effect on groundwater quality).
- [C-172/08](#) 25.2.2010. This was a judgement relating to the interpretation of Article 10 on a special levy on the disposal of solid waste in landfills. The judgement was that Article 10 does not preclude national provisions to make the operator of a landfill site subject to a levy to be reimbursed by the local authority depositing the waste (subject to conditions related to financial penalties for late payment by the operator, and interest charged if the local authority is slow to reimburse).
- [C-192/10](#) 19.4.2010. This was a judgement against Spain for failure to fulfil its obligations under Articles 13 and 14 of the Directive (aftercare and closure of an existing landfill site).

Further developments

The Commission studied the feasibility of creating an EU Waste Implementation Agency to help address the problem of inadequate implementation and enforcement deficit¹.

Related legislation

There are a number of other EU Directives that have strong interactions with the Landfill Directive 1991/31/EC. These include:

- Directive on Waste ([2008/98/EC](#)).
- Integrated Pollution Prevention and Control (IPPC) Directive ([2008/1/EC](#)).
- Industrial Emissions Directive (2010/75/EU).

The issues of relevance to these Directives are covered in the chapters which deal with them. However, a brief outline of their relevance to the Landfill Directive is given below.

Directive 2008/98/EC sets the basic concepts and definitions related to waste management and lays down waste management principles such as the ‘polluter pays principle’ and the ‘waste hierarchy’. Certain landfills fall within the ambit of Directive 2008/1/EC on IPPC. However, Article 1(2) of the Landfill Directive provides that the relevant technical requirements of the IPPC Directive shall be deemed to be fulfilled if the requirements of the Landfill Directive are complied with. The Landfill Directive does not have to be applied to existing installations until 2009 at the latest, whereas IPPC permits must be issued to existing installations by October 2007.

Reference

1 Milieu Ltd, AmbienDura and FFact (2009). Study on the feasibility of the establishment of a Waste Implementation Agency. Report for DG Environment. Available at this [link](#).