

# The EU Landfill Directive

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1.	Introduction.....	9
1.1.	Environmental policies of the Landfill Directive .....	10
1.2.	Regulatory instruments of the Landfill Directive .....	10
2.	European legal framework for landfills.....	10
3.	Scope of the Landfill Directive.....	11
4.	Permits.....	12
5.	Technical requirements for landfills .....	12
6.	Regulation of the landfilling of waste .....	12
6.1.	Classes of landfills .....	12
6.2.	Waste to be accepted.....	13
6.3.	Procedures and waste acceptance criteria.....	13
6.4.	Tightening of the provisions of the Landfill Directive by national law: ECJ decision <i>Deponiezweckverband Eiterköpfe</i> .....	13
6.5.	Reduction of biodegradable waste .....	14
7.	Control and monitoring procedures .....	14
8.	Closure and long term post operation phase .....	15

## 1. Introduction

The European legislator has targeted the environmental risks and dangers of landfills with the Directive 1999/31/EC<sup>1</sup> on the landfill of waste (Landfill Directive). In order to cope with the dangers of landfills, uniform structures were created by way of the landfill directive.

<sup>1</sup> Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste, Official Journal L 182, 16/07/1999, pp. 1. Last amended by Council Directive amending Council Directive 1999/31/EC as regards specific criteria for the storage of metallic mercury considered as waste, Official Journal L 328, 10/12/2011, pp. 49.

## 1.1. Environmental policies of the Landfill Directive

Several environmental policy goals are pursued which can be categorised into the categories protection of natural resources, protection from environmental pollution and climate protection. In order to safeguard natural resources and to obviate wasteful use of land the prevention, recycling and recovery of waste as well as the use of recovered materials is encouraged.<sup>2</sup> Another environmental policy goal next to the safeguarding of natural resources is the containment of dangers and risks deriving from landfills, in particular dangers for water, soil and air by way of increased control of the landfills and the deposit of waste at the landfills.<sup>3</sup> Furthermore, the production of methane gas from landfills shall be reduced, in order to reduce the interconnected global warming. For this purpose the Landfill Directive stipulates the reduction of the landfilling of biodegradable waste and the requirements to introduce landfill gas control.<sup>4</sup>

## 1.2. Regulatory instruments of the Landfill Directive

The Landfill Directive provides for concrete regulatory instruments for the achievement of the aforementioned goals.

For the purpose of the prevention of environmental dangers the Landfill Directive prescribes strict operational and technical requirements (see below E.) and measures, procedures and guidelines in order to avoid negative effects from landfilling of waste during the whole life-cycle of the landfill.<sup>5</sup> This includes investigation and control duties, in particular regarding a uniform waste acceptance procedure and the setting of threshold values for waste to be landfilled (see below F.III).

Furthermore, the Landfill Directive stipulates requirements for the costs of the landfilling of waste<sup>6</sup> and for the closure procedure and after-care of the site<sup>7</sup> as well as for financial security for the operator of the landfill,<sup>8</sup> in order to encompass the actual costs of landfilling of waste (see below H.).

## 2. European legal framework for landfills

The Landfill Directive is intertwined with other European statutes. For instance, the landfill decision of the Council 2003/33/EC<sup>9</sup> stipulates the criteria and procedures for the acceptance of waste on landfills pursuant to Article 16 and Annex II of the Landfill Directive.

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<sup>2</sup> Recital 3 Landfill Directive.

<sup>3</sup> Recitals 5 to 7 Landfill Directive.

<sup>4</sup> Recital 16 Landfill Directive.

<sup>5</sup> Article 1 Landfill Directive.

<sup>6</sup> Article 10 Landfill Directive.

<sup>7</sup> Article 13 Landfill Directive.

<sup>8</sup> Recital 28, Article 8(a)(iv) Landfill Directive.

<sup>9</sup> Council Decision of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II to Directive 1999/31/EC, Official Journal L 11, 16/01/2003, pp. 27.

The Waste Framework Directive 2008/98/EC<sup>10</sup> stipulates the definition of waste for the Landfill Directive as well<sup>11</sup> and the admissible disposal procedures for the waste disposal on landfills. Annex I Waste Framework Directive categorises different disposal procedures such as *D 1 Deposit into or on to land (e.g. landfill, etc.)*, *D 2 Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.)*.

The Industrial Emissions Directive (IED Directive) 2010/75/EU<sup>12</sup> covers pursuant to point 5.4. of Annex I landfills in the sense of Article 2(g) Landfill Directive with a capacity of receiving more than 10 tonnes of waste per day or with a total capacity exceeding 25,000 tonnes and stipulates further requirements for the operation of landfills (see below G.).

As sectoral legislation the Mining Waste Directive 2006/21/EC<sup>13</sup> which stipulates privileged requirements for the landfilling of mining waste takes precedence over the Landfill Directive.

### 3. Scope of the Landfill Directive

The Landfill Directive is applicable to all landfills pursuant to Article 2(g) Landfill Directive. Hereafter a *landfill* means a waste disposal site for the deposit of the waste onto or into land (i.e. underground), including:

- internal waste disposal sites (i.e. landfill where a producer of waste is carrying out its own waste disposal at the place of production), and
- a permanent site (i.e. more than one year) which is used for temporary storage of waste.

Excluded by definition are

- facilities where waste is unloaded in order to permit its preparation for further transport for recovery, treatment or disposal elsewhere, and
- storage of waste prior to recovery or treatment for a period less than three years as a general rule,<sup>14</sup> or
- storage of waste prior to disposal for a period less than one year.

Contaminated soil is not considered a landfill pursuant to the Landfill Directive since landfills require the intentional landfilling of the waste.<sup>15</sup>

<sup>10</sup> Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, Official Journal L 312, 22/11/2008, pp. 3.

<sup>11</sup> According to Article 2 (a) Landfill Directive *waste* means any substance or object which is covered by Directive 75/442/EEC. Directive 75/442/EEC was replaced by the Waste Framework Directive.

<sup>12</sup> Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast), Official Journal L 334, 17/12/2010, pp. 17.

<sup>13</sup> Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC – Statement by the European Parliament, the Council and the Commission, Official Journal L 102, 11/04/2006, pp. 15, amended by Regulation (EC) No 596/2009 of the European Parliament and of the Council of 18 June 2009, Official Journal L 188, 18/7/2009, pp. 14. See also *Attendorn, Natur und Recht* (NuR) 2008, 153 ff.

<sup>14</sup> Therefore, long term storages (*Langzeitlager*) pursuant to the German Landfill Ordinance (Deponieverordnung), i.e., storages operated longer than one year and on which the waste is generally stored longer than three years prior to its subsequent recovery or treatment or longer than one year prior to its subsequent disposal, are subject to the Landfill Directive.

<sup>15</sup> Rightly so the inofficial statement of the European Commission cited by *Wagner, Deponieverordnung und Deponieverwertungsverordnung*, 2<sup>nd</sup> ed., p. 34.

## 4. Permits

Requirements for permits for landfills are provided by the general provisions set out in Article 9 of Directive 75/442/EEC and Article 9 of Directive 96/61/EC. These provisions are specified and amended by the Landfill Directive.

The Landfill Directive prescribes detailed requirements for the permit application (Article 7 Landfill Directive), the requirements for the grant of the permit (Article 8 Landfill Directive) and for the content of the permit (Article 9 Landfill Directive). It is a prerequisite for the grant of a permit that the management of the landfill site will be in the hands of a natural person who is technically competent to manage the site. The landfill shall be operated in such a manner that the necessary measures are taken to prevent accidents and limit their consequences. The applicant has to ensure by way of a prior financial security or any other equivalent, that the obligations (including after-care provisions) arising under the permit are discharged and that the closure procedures required by Article 13 Landfill Directive are followed.

## 5. Technical requirements for landfills

General requirements for landfills are stipulated in Annex I Landfill Directive. Specific requirements for instance are prescribed regarding the location (geological and hydrogeological conditions at the prospective site), monitoring duties regarding water and leachate management and protection of the soil and of the water (in particular regarding the potential hazards of leachate). Furthermore, there are specifications for the gas control and the stability of the mass of waste, for instance in order to prevent damages to the geological barrier caused by settlements.

## 6. Regulation of the landfilling of waste

### 6.1. Classes of landfills

Starting point for the prevention of the dangers posed by landfills is the categorisation of landfills in classes to which specified types of waste is assigned.

Every landfill is classified in one of the following classes pursuant to Article 4 Landfill Directive:

- Landfill for hazardous waste,
- Landfill for non-hazardous waste,
- Landfill for inert waste.

The Council Decision 2003/33/EC allows the member states transferring the directive to create subcategories of landfills for non-hazardous waste. Such subcategories for instance are:

- Landfill for inorganic non-hazardous waste with a low content of organic/biodegradable matter (B1b),
- Landfill for organic non-hazardous waste (B2) and
- Landfill for mixed non-hazardous waste with substantial contents of both organic/biodegradable waste and inorganic waste. (B3).

## 6.2. Waste to be accepted

The types of waste permitted in the different classes of landfills are stipulated in Article 6 Landfill Directive. As a general rule Article 6(a) Landfill Directive provides that – apart from specified exceptions – only waste that has been subject to treatment is landfilled. The obligation for treatment does not apply to inert waste, for which treatment is not technically feasible.

Furthermore, hazardous waste fulfilling the respective criteria in Annex II is assigned to a landfill for hazardous waste and inert waste landfill sites shall be used only for inert waste. Landfills for non hazardous waste may be used for municipal waste and non hazardous waste fulfilling the respective criteria in Annex II Landfill Directive.

## 6.3. Procedures and waste acceptance criteria

The assignment of waste to the landfill classes is subject to the waste acceptance criteria of Annex II Landfill Directive. The uniform waste classification and acceptance procedure is laid out in the Annex of the Council Decision of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II to Landfill Directive. The decision prescribes, inter alia, obligations for visual inspections and periodical sampling of the waste (point 1.3 of the Annex of the Decision) and threshold values for different types of waste and landfilling. The dilution of mixture of waste solely in order to meet the waste acceptance criteria is prohibited pursuant to Article 5(4) Landfill Directive.

Article 5(3) Landfill Directive provides that the landfilling of liquid waste, waste which, in the conditions of landfill, is explosive, corrosive, oxidising, highly flammable or flammable, specified infectious hospital and other clinical wastes, whole used tyres and other types of waste not fulfilling the acceptance criteria determined in accordance with Annex II Landfill Directive is not to be accepted.

## 6.4. Tightening of the provisions of the Landfill Directive by national law: ECJ decision *Deponiezweckverband Eiterköpfe*

The aggravation of the provisions of the provisions of the Landfill Directive into German national law led to a ruling of the European Court of Justice<sup>16</sup> in which the possibility of maintaining or introducing more stringent protective measures were clarified. According to the ruling *it is not contrary to Article 5(1) and (2) of the Landfill Directive that a measure of domestic law should:*

- *fix limits in respect of the acceptance of biodegradable waste for landfill lower than those fixed by the Directive, even if those limits are so low that they call for treatment by mechanical and biological processes or the incineration of such waste before it is landfilled,*
- *fix earlier time-limits than those under the Directive in order to reduce the amount of waste going to landfill,*
- *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.*

<sup>16</sup> Case C-6/03 (14/4/2005) *Deponiezweckverband Eiterköpfe*.

The European Court of Justice further held that the *Community-law principle of proportionality is not applicable so far as concerns more stringent protective measures of domestic law adopted by virtue of Article 176 EC [author's comment: now Article 193 TFEU<sup>17</sup>] and going beyond the minimum requirements laid down by a Community directive in the sphere of the environment, inasmuch as other provisions of the Treaty are not involved.* The Court further held that *as a result, the Community-law principle of proportionality is not applicable so far as concerns more stringent protective measures of domestic law adopted by virtue of Article 176 EC and going beyond the minimum requirements laid down by a Community directive in the sphere of the environment, inasmuch as other provisions of the Treaty are not involved.*

## 6.5. Reduction of biodegradable waste

The environmental policy of the reduction of methane gas produced by landfills is implemented by Article 5 Landfill Directive by a step-by-step reduction of the landfilling of biodegradable waste. Article 5(1) Landfill Directive obligates the member states to set their strategy for the reduction of the biodegradable waste destined for landfilling. This strategy should cover measures by means of in particular, recycling, composting, biogas production or materials/energy recovery.

Article 5(2) Landfill Directive sets the objective for the member states. Based on the total amount produced in 1995 or the latest year before 1995 the total amount was to be reduced by the year 2006 to 75 % and by 2009 to 50 %. By the year 2016 a reduction to 35 % must be achieved. For member states which landfilled more than 80 % of their collected municipal waste in 1995 or the latest year before 1995 the aforementioned schedule may be postponed by four years.

## 7. Control and monitoring procedures

Provisions for the control and monitoring procedures during operation and during the long term post operation phase are provided in Annex III Landfill Directive.

Landfills receiving more than 10 tonnes of waste per day or with a total capacity exceeding 25,000 tonnes (excluding landfills of inert waste) are subject to the IED Directive.<sup>18</sup> Article 1(2) Landfill Directive in connection with Article 81(3) IED-Directive stipulates that the Landfill Directive takes precedent over the IED Directive regarding the technical requirements.<sup>19</sup> Otherwise, insofar non technical requirements of operators of landfills subject to the IED Directive are concerned, the IED Directive is applicable. The IED Directive provides for further requirements for instance for the monitoring of landfills and for reporting duties (monitoring of conditions with time limits and setting of environmental inspection plans and programmes for the authorities).<sup>20</sup>

<sup>17</sup> Treaty on the functioning of the European Union, Official Journal C 115, 9/5/2008, pp. 47.

<sup>18</sup> Article 2, 10 in connection with Annex I point 5.4 IED Directive.

<sup>19</sup> Article 1(2) Landfill Directive refers to *Directive 96/61/EC*. Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control, Official Journal L 257, 10/10/1996, pp. 26, was codified into the IPPC Directive 2008/1/EC, which was repealed with effect from 7 January 2014, Article 81(1) IED Directive. According to Article 81(3) IED Directive the reference to the Directive 96/61/EC shall be construed as reference to the IED Directive.

<sup>20</sup> See the German Draft Act on the Transfer of the IED Directive (*Entwurf eines Gesetzes zur Umsetzung der Richtlinie über Industrieemissionen*), BR-Drs. 314/12 of 25 May 2012, p. 46.

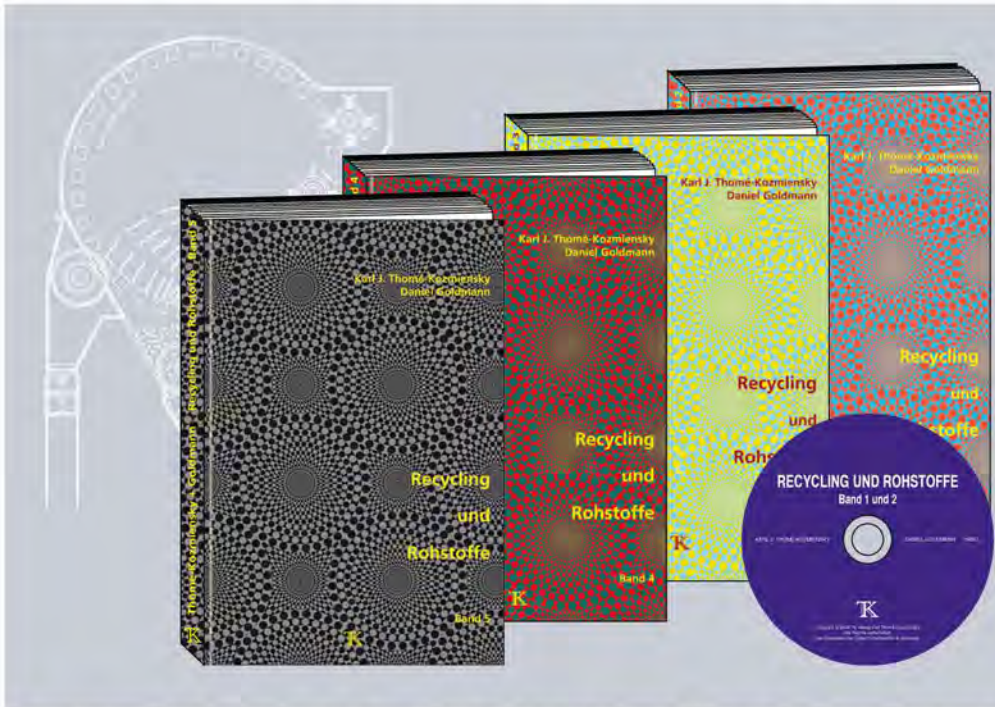
## 8. Closure and long term post operation phase

The Landfill Directive sets provisions for the operational and post-operational phases of landfills. The closure procedure for landfills are initiated when the relevant conditions stated in the permit are met; or under the authorisation of the competent authority, at the request of the operator; or by reasoned decision of the competent authority (Article 13(a) Landfill Directive). Requirement for the closure is an inspection (final on-site inspection, assessment of reports submitted by the operator) and the authority's approval for the closure. The Landfill Directive clarifies that the liability of the operator for the monitoring is not decreased by closure.

After the final closure of the landfill the operator has control and reporting duties. The operator is responsible for control and monitoring duties during the long term post operation phase as long as the competent authority requires under consideration of the time frame in which the landfill may have hazardous effects. This encompasses monitoring and analysing landfill gas and leachate from the site and the groundwater regime in the vicinity of the site in accordance with Annex III Landfill Directive.

The Landfill Directive does not contain any provisions regarding the liability of the landfill operator. Article 13 Landfill Directive is limited to prescribing that the responsibility for monitoring and analysing measures during the long term post operational phase as long as the competent authorities consider such measures necessary for the prevention of the hazards of landfills. The problem of the liability of operators for landfills is not solved by European law and continues to be unresolved at least in Germany. The operators are hardly able to calculate the price to be charged for the disposal of waste pursuant to Article 10 Landfill Directive due to the unpredictability of costs for the long term post operational phase. In the event of an unrestricted liability the operator would have to bear the full risk for the unpredictability despite fulfilling a public service with the landfill operation.

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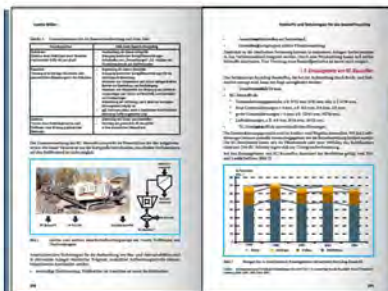
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