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**► B      DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**  
**of 19 November 2008**  
**on waste and repealing certain Directives**  
**(Text with EEA relevance)**  
**(OJ L 312, 22.11.2008, p. 3)**

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- C1      Corrigendum, OJ L 297, 13.11.2015, p. 9 (2015/1127)  
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**DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT  
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**on waste and repealing certain Directives**

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**CHAPTER I**

**SUBJECT MATTER, SCOPE AND DEFINITIONS**

*Article 1*

**Subject matter and scope**

This Directive lays down measures to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use.

*Article 2*

**Exclusions from the scope**

1. The following shall be excluded from the scope of this Directive:

- (a) gaseous effluents emitted into the atmosphere;
- (b) land (in situ) including unexcavated contaminated soil and buildings permanently connected with land;
- (c) uncontaminated soil and other naturally occurring material excavated in the course of construction activities where it is certain that the material will be used for the purposes of construction in its natural state on the site from which it was excavated;
- (d) radioactive waste;
- (e) decommissioned explosives;
- (f) faecal matter, if not covered by paragraph 2(b), straw and other natural non-hazardous agricultural or forestry material used in farming, forestry or for the production of energy from such biomass through processes or methods which do not harm the environment or endanger human health.

2. The following shall be excluded from the scope of this Directive to the extent that they are covered by other Community legislation:

- (a) waste waters;
- (b) animal by-products including processed products covered by Regulation (EC) No 1774/2002, except those which are destined for incineration, landfilling or use in a biogas or composting plant;

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- (c) carcasses of animals that have died other than by being slaughtered, including animals killed to eradicate epizootic diseases, and that are disposed of in accordance with Regulation (EC) No 1774/2002;
- (d) waste resulting from prospecting, extraction, treatment and storage of mineral resources and the working of quarries covered by Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries <sup>(1)</sup>.

3. Without prejudice to obligations under other relevant Community legislation, sediments relocated inside surface waters for the purpose of managing waters and waterways or of preventing floods or mitigating the effects of floods and droughts or land reclamation shall be excluded from the scope of this Directive if it is proved that the sediments are non-hazardous.

4. Specific rules for particular instances, or supplementing those of this Directive, on the management of particular categories of waste, may be laid down by means of individual Directives.

### *Article 3*

#### **Definitions**

For the purposes of this Directive, the following definitions shall apply:

1. 'waste' means any substance or object which the holder discards or intends or is required to discard;
2. 'hazardous waste' means waste which displays one or more of the hazardous properties listed in Annex III;
3. 'waste oils' means any mineral or synthetic lubrication or industrial oils which have become unfit for the use for which they were originally intended, such as used combustion engine oils and gearbox oils, lubricating oils, oils for turbines and hydraulic oils;
4. 'bio-waste' means biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises and comparable waste from food processing plants;
5. 'waste producer' means anyone whose activities produce waste (original waste producer) or anyone who carries out pre-processing, mixing or other operations resulting in a change in the nature or composition of this waste;
6. 'waste holder' means the waste producer or the natural or legal person who is in possession of the waste;
7. 'dealer' means any undertaking which acts in the role of principal to purchase and subsequently sell waste, including such dealers who do not take physical possession of the waste;

<sup>(1)</sup> OJ L 102, 11.4.2006, p. 15.

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8. 'broker' means any undertaking arranging the recovery or disposal of waste on behalf of others, including such brokers who do not take physical possession of the waste;
9. 'waste management' means the collection, transport, recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites, and including actions taken as a dealer or broker;
10. 'collection' means the gathering of waste, including the preliminary sorting and preliminary storage of waste for the purposes of transport to a waste treatment facility;
11. 'separate collection' means the collection where a waste stream is kept separately by type and nature so as to facilitate a specific treatment;
12. 'prevention' means measures taken before a substance, material or product has become waste, that reduce:
  - (a) the quantity of waste, including through the re-use of products or the extension of the life span of products;
  - (b) the adverse impacts of the generated waste on the environment and human health; or
  - (c) the content of harmful substances in materials and products;
13. 're-use' means any operation by which products or components that are not waste are used again for the same purpose for which they were conceived;
14. 'treatment' means recovery or disposal operations, including preparation prior to recovery or disposal;
15. 'recovery' means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy. Annex II sets out a non-exhaustive list of recovery operations;
16. 'preparing for re-use' means checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing;
17. 'recycling' means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for back-filling operations;

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18. 'regeneration of waste oils' means any recycling operation whereby base oils can be produced by refining waste oils, in particular by removing the contaminants, the oxidation products and the additives contained in such oils;
19. 'disposal' means any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy. Annex I sets out a non-exhaustive list of disposal operations;
20. 'best available techniques' means best available techniques as defined in Article 2(11) of Directive 96/61/EC.

*Article 4***Waste hierarchy**

1. The following waste hierarchy shall apply as a priority order in waste prevention and management legislation and policy:

- (a) prevention;
- (b) preparing for re-use;
- (c) recycling;
- (d) other recovery, e.g. energy recovery; and
- (e) disposal.

2. When applying the waste hierarchy referred to in paragraph 1, Member States shall take measures to encourage the options that deliver the best overall environmental outcome. This may require specific waste streams departing from the hierarchy where this is justified by life-cycle thinking on the overall impacts of the generation and management of such waste.

Member States shall ensure that the development of waste legislation and policy is a fully transparent process, observing existing national rules about the consultation and involvement of citizens and stakeholders.

Member States shall take into account the general environmental protection principles of precaution and sustainability, technical feasibility and economic viability, protection of resources as well as the overall environmental, human health, economic and social impacts, in accordance with Articles 1 and 13.

*Article 5***By-products**

1. A substance or object, resulting from a production process, the primary aim of which is not the production of that item, may be regarded as not being waste referred to in point (1) of Article 3 but as being a by-product only if the following conditions are met:

- (a) further use of the substance or object is certain;

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- (b) the substance or object can be used directly without any further processing other than normal industrial practice;
- (c) the substance or object is produced as an integral part of a production process; and
- (d) further use is lawful, i.e. the substance or object fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts.

2. On the basis of the conditions laid down in paragraph 1, measures may be adopted to determine the criteria to be met for specific substances or objects to be regarded as a by-product and not as waste referred to in point (1) of Article 3. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39(2).

*Article 6***End-of-waste status**

1. Certain specified waste shall cease to be waste within the meaning of point (1) of Article 3 when it has undergone a recovery, including recycling, operation and complies with specific criteria to be developed in accordance with the following conditions:

- (a) the substance or object is commonly used for specific purposes;
- (b) a market or demand exists for such a substance or object;
- (c) the substance or object fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and
- (d) the use of the substance or object will not lead to overall adverse environmental or human health impacts.

The criteria shall include limit values for pollutants where necessary and shall take into account any possible adverse environmental effects of the substance or object.

2. The measures designed to amend non-essential elements of this Directive by supplementing it relating to the adoption of the criteria set out in paragraph 1 and specifying the type of waste to which such criteria shall apply shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39(2). End-of-waste specific criteria should be considered, among others, at least for aggregates, paper, glass, metal, tyres and textiles.

3. Waste which ceases to be waste in accordance with paragraphs 1 and 2, shall also cease to be waste for the purpose of the recovery and recycling targets set out in Directives 94/62/EC, 2000/53/EC, 2002/96/EC and 2006/66/EC and other relevant Community legislation when the recycling or recovery requirements of that legislation are satisfied.

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4. Where criteria have not been set at Community level under the procedure set out in paragraphs 1 and 2, Member States may decide case by case whether certain waste has ceased to be waste taking into account the applicable case law. They shall notify the Commission of such decisions in accordance with Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services<sup>(1)</sup> where so required by that Directive.

*Article 7***List of waste**

1. The measures designed to amend non-essential elements of this Directive relating to the updating of the list of waste established by Decision 2000/532/EC shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39(2). The list of waste shall include hazardous waste and shall take into account the origin and composition of the waste and, where necessary, the limit values of concentration of hazardous substances. The list of waste shall be binding as regards determination of the waste which is to be considered as hazardous waste. The inclusion of a substance or object in the list shall not mean that it is waste in all circumstances. A substance or object shall be considered to be waste only where the definition in point (1) of Article 3 is met.

2. A Member State may consider waste as hazardous waste where, even though it does not appear as such on the list of waste, it displays one or more of the properties listed in Annex III. The Member State shall notify the Commission of any such cases without delay. It shall record them in the report provided for in Article 37(1) and shall provide the Commission with all relevant information. In the light of notifications received, the list shall be reviewed in order to decide on its adaptation.

3. Where a Member State has evidence to show that specific waste that appears on the list as hazardous waste does not display any of the properties listed in Annex III, it may consider that waste as non-hazardous waste. The Member State shall notify the Commission of any such cases without delay and shall provide the Commission with the necessary evidence. In the light of notifications received, the list shall be reviewed in order to decide on its adaptation.

4. The reclassification of hazardous waste as non-hazardous waste may not be achieved by diluting or mixing the waste with the aim of lowering the initial concentrations of hazardous substances to a level below the thresholds for defining waste as hazardous.

5. The measures designed to amend non-essential elements of this Directive relating to the revision of the list in order to decide on its adaptation pursuant to paragraphs 2 and 3 shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39(2).

<sup>(1)</sup> OJ L 204, 21.7.1998, p. 37.

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6. Member States may consider waste as non-hazardous waste in accordance with the list of waste referred to in paragraph 1.

7. The Commission shall ensure that the list of waste and any review of this list adhere, as appropriate, to principles of clarity, comprehensibility and accessibility for users, particularly small and medium-sized enterprises (SMEs).

**CHAPTER II****GENERAL REQUIREMENTS***Article 8***Extended producer responsibility**

1. In order to strengthen the re-use and the prevention, recycling and other recovery of waste, Member States may take legislative or non-legislative measures to ensure that any natural or legal person who professionally develops, manufactures, processes, treats, sells or imports products (producer of the product) has extended producer responsibility.

Such measures may include an acceptance of returned products and of the waste that remains after those products have been used, as well as the subsequent management of the waste and financial responsibility for such activities. These measures may include the obligation to provide publicly available information as to the extent to which the product is re-usable and recyclable.

2. Member States may take appropriate measures to encourage the design of products in order to reduce their environmental impacts and the generation of waste in the course of the production and subsequent use of products, and in order to ensure that the recovery and disposal of products that have become waste take place in accordance with Articles 4 and 13.

Such measures may encourage, inter alia, the development, production and marketing of products that are suitable for multiple use, that are technically durable and that are, after having become waste, suitable for proper and safe recovery and environmentally compatible disposal.

3. When applying extended producer responsibility, Member States shall take into account the technical feasibility and economic viability and the overall environmental, human health and social impacts, respecting the need to ensure the proper functioning of the internal market.

4. The extended producer responsibility shall be applied without prejudice to the responsibility for waste management as provided for in Article 15(1) and without prejudice to existing waste stream specific and product specific legislation.





### *Article 9*

#### **Prevention of waste**

Following the consultation of stakeholders, the Commission shall submit to the European Parliament and the Council the following reports accompanied, if appropriate, by proposals for measures required in support of the prevention activities and the implementation of the waste prevention programmes referred to in Article 29 covering:

- (a) by the end of 2011, an interim report on the evolution of waste generation and the scope of waste prevention, including the formulation of a product eco-design policy addressing both the generation of waste and the presence of hazardous substances in waste, with a view to promoting technologies focusing on durable, re-usable and recyclable products;
- (b) by the end of 2011, the formulation of an action plan for further support measures at European level seeking, in particular, to change current consumption patterns;
- (c) by the end of 2014, the setting of waste prevention and decoupling objectives for 2020, based on best available practices including, if necessary, a revision of the indicators referred to in Article 29(4).

### *Article 10*

#### **Recovery**

1. Member States shall take the necessary measures to ensure that waste undergoes recovery operations, in accordance with Articles 4 and 13.

2. Where necessary to comply with paragraph 1 and to facilitate or improve recovery, waste shall be collected separately if technically, environmentally and economically practicable and shall not be mixed with other waste or other material with different properties.

### *Article 11*

#### **Re-use and recycling**

1. Member States shall take measures, as appropriate, to promote the re-use of products and preparing for re-use activities, notably by encouraging the establishment and support of re-use and repair networks, the use of economic instruments, procurement criteria, quantitative objectives or other measures.

Member States shall take measures to promote high quality recycling and, to this end, shall set up separate collections of waste where technically, environmentally and economically practicable and appropriate to meet the necessary quality standards for the relevant recycling sectors.

Subject to Article 10(2), by 2015 separate collection shall be set up for at least the following: paper, metal, plastic and glass.

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2. In order to comply with the objectives of this Directive, and move towards a European recycling society with a high level of resource efficiency, Member States shall take the necessary measures designed to achieve the following targets:

- (a) by 2020, the preparing for re-use and the recycling of waste materials such as at least paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar to waste from households, shall be increased to a minimum of overall 50 % by weight;
- (b) by 2020, the preparing for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition waste excluding naturally occurring material defined in category 17 05 04 in the list of waste shall be increased to a minimum of 70 % by weight.

3. The Commission shall establish detailed rules on the application and calculation methods for verifying compliance with the targets set out in paragraph 2 of this Article, considering Regulation (EC) No 2150/2002 of the European Parliament and of the Council of 25 November 2002 on waste statistics<sup>(1)</sup>. These can include transition periods for Member States which, in 2008, recycled less than 5 % of either categories of waste referred to in paragraph 2. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39(2) of this Directive.

4. By 31 December 2014 at the latest, the Commission shall examine the measures and the targets referred to in paragraph 2 with a view to, if necessary, reinforcing the targets and considering the setting of targets for other waste streams. The report of the Commission, accompanied by a proposal if appropriate, shall be sent to the European Parliament and the Council. In its report, the Commission shall take into account the relevant environmental, economic and social impacts of setting the targets.

5. Every three years, in accordance with Article 37, Member States shall report to the Commission on their record with regard to meeting the targets. If targets are not met, this report shall include the reasons for failure and the actions the Member State intends to take to meet those targets.

## *Article 12*

### **Disposal**

Member States shall ensure that, where recovery in accordance with Article 10(1) is not undertaken, waste undergoes safe disposal operations which meet the provisions of Article 13 on the protection of human health and the environment.

<sup>(1)</sup> OJ L 332, 9.12.2002, p. 1.

*Article 13***Protection of human health and the environment**

Member States shall take the necessary measures to ensure that waste management is carried out without endangering human health, without harming the environment and, in particular:

- (a) without risk to water, air, soil, plants or animals;
- (b) without causing a nuisance through noise or odours; and
- (c) without adversely affecting the countryside or places of special interest.

*Article 14***Costs**

1. In accordance with the polluter-pays principle, the costs of waste management shall be borne by the original waste producer or by the current or previous waste holders.
2. Member States may decide that the costs of waste management are to be borne partly or wholly by the producer of the product from which the waste came and that the distributors of such product may share these costs.

## CHAPTER III

**WASTE MANAGEMENT***Article 15***Responsibility for waste management**

1. Member States shall take the necessary measures to ensure that any original waste producer or other holder carries out the treatment of waste himself or has the treatment handled by a dealer or an establishment or undertaking which carries out waste treatment operations or arranged by a private or public waste collector in accordance with Articles 4 and 13.
2. When the waste is transferred from the original producer or holder to one of the natural or legal persons referred to in paragraph 1 for preliminary treatment, the responsibility for carrying out a complete recovery or disposal operation shall not be discharged as a general rule.

Without prejudice to Regulation (EC) No 1013/2006, Member States may specify the conditions of responsibility and decide in which cases the original producer is to retain responsibility for the whole treatment chain or in which cases the responsibility of the producer and the holder can be shared or delegated among the actors of the treatment chain.

3. Member States may decide, in accordance with Article 8, that the responsibility for arranging waste management is to be borne partly or wholly by the producer of the product from which the waste came and that distributors of such product may share this responsibility.

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4. Member States shall take the necessary measures to ensure that, within their territory, the establishments or undertakings which collect or transport waste on a professional basis deliver the waste collected and transported to appropriate treatment installations respecting the provisions of Article 13.

*Article 16***Principles of self-sufficiency and proximity**

1. Member States shall take appropriate measures, in cooperation with other Member States where this is necessary or advisable, to establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste collected from private households, including where such collection also covers such waste from other producers, taking into account best available techniques.

By way of derogation from Regulation (EC) No 1013/2006, Member States may, in order to protect their network, limit incoming shipments of waste destined to incinerators that are classified as recovery, where it has been established that such shipments would result in national waste having to be disposed of or waste having to be treated in a way that is not consistent with their waste management plans. Member States shall notify the Commission of any such decision. Member States may also limit outgoing shipments of waste on environmental grounds as set out in Regulation (EC) No 1013/2006.

2. The network shall be designed to enable the Community as a whole to become self-sufficient in waste disposal as well as in the recovery of waste referred to in paragraph 1, and to enable Member States to move towards that aim individually, taking into account geographical circumstances or the need for specialised installations for certain types of waste.

3. The network shall enable waste to be disposed of or waste referred to in paragraph 1 to be recovered in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health.

4. The principles of proximity and self-sufficiency shall not mean that each Member State has to possess the full range of final recovery facilities within that Member State.

*Article 17***Control of hazardous waste**

Member States shall take the necessary action to ensure that the production, collection and transportation of hazardous waste, as well as its storage and treatment, are carried out in conditions providing protection for the environment and human health in order to meet the provisions of Article 13, including action to ensure traceability from production to final destination and control of hazardous waste in order to meet the requirements of Articles 35 and 36.

*Article 18***Ban on the mixing of hazardous waste**

1. Member States shall take the necessary measures to ensure that hazardous waste is not mixed, either with other categories of hazardous waste or with other waste, substances or materials. Mixing shall include the dilution of hazardous substances.
2. By way of derogation from paragraph 1, Member States may allow mixing provided that:
  - (a) the mixing operation is carried out by an establishment or undertaking which has obtained a permit in accordance with Article 23;
  - (b) the provisions of Article 13 are complied with and the adverse impact of the waste management on human health and the environment is not increased; and
  - (c) the mixing operation conforms to best available techniques.
3. Subject to technical and economic feasibility criteria, where hazardous waste has been mixed in a manner contrary to paragraph 1, separation shall be carried out where possible and necessary in order to comply with Article 13.

*Article 19***Labelling of hazardous waste**

1. Member States shall take the necessary measures to ensure that, in the course of collection, transport and temporary storage, hazardous waste is packaged and labelled in accordance with the international and Community standards in force.
2. Whenever hazardous waste is transferred within a Member State, it shall be accompanied by an identification document, which may be in electronic format, containing the appropriate data specified in Annex IB to Regulation (EC) No 1013/2006.

*Article 20***Hazardous waste produced by households**

Articles 17, 18, 19 and 35 shall not apply to mixed waste produced by households.

Articles 19 and 35 shall not apply to separate fractions of hazardous waste produced by households until they are accepted for collection, disposal or recovery by an establishment or an undertaking which has obtained a permit or has been registered in accordance with Articles 23 or 26.

*Article 21***Waste oils**

1. Without prejudice to the obligations related to the management of hazardous waste laid down in Articles 18 and 19, Member States shall take the necessary measures to ensure that:
  - (a) waste oils are collected separately, where this is technically feasible;

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- (b) waste oils are treated in accordance with Articles 4 and 13;
  - (c) where this is technically feasible and economically viable, waste oils of different characteristics are not mixed and waste oils are not mixed with other kinds of waste or substances, if such mixing impedes their treatment.
2. For the purposes of separate collection of waste oils and their proper treatment, Member States may, according to their national conditions, apply additional measures such as technical requirements, producer responsibility, economic instruments or voluntary agreements.
3. If waste oils, according to national legislation, are subject to requirements of regeneration, Member States may prescribe that such waste oils shall be regenerated if technically feasible and, where Articles 11 or 12 of Regulation (EC) No 1013/2006 apply, restrict the trans-boundary shipment of waste oils from their territory to incineration or co-incineration facilities in order to give priority to the regeneration of waste oils.

*Article 22***Bio-waste**

Member States shall take measures, as appropriate, and in accordance with Articles 4 and 13, to encourage:

- (a) the separate collection of bio-waste with a view to the composting and digestion of bio-waste;
- (b) the treatment of bio-waste in a way that fulfils a high level of environmental protection;
- (c) the use of environmentally safe materials produced from bio-waste.

The Commission shall carry out an assessment on the management of bio-waste with a view to submitting a proposal if appropriate. The assessment shall examine the opportunity of setting minimum requirements for bio-waste management and quality criteria for compost and digestate from bio-waste, in order to guarantee a high level of protection for human health and the environment.

## CHAPTER IV

**PERMITS AND REGISTRATIONS***Article 23***Issue of permits**

1. Member States shall require any establishment or undertaking intending to carry out waste treatment to obtain a permit from the competent authority.

Such permits shall specify at least the following:

- (a) the types and quantities of waste that may be treated;

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- (b) for each type of operation permitted, the technical and any other requirements relevant to the site concerned;
  - (c) the safety and precautionary measures to be taken;
  - (d) the method to be used for each type of operation;
  - (e) such monitoring and control operations as may be necessary;
  - (f) such closure and after-care provisions as may be necessary.
2. Permits may be granted for a specified period and may be renewable.
3. Where the competent authority considers that the intended method of treatment is unacceptable from the point of view of environmental protection, in particular when the method is not in accordance with Article 13, it shall refuse to issue the permit.
4. It shall be a condition of any permit covering incineration or co-incineration with energy recovery that the recovery of energy take place with a high level of energy efficiency.
5. Provided that the requirements of this Article are complied with, any permit produced pursuant to other national or Community legislation may be combined with the permit required under paragraph 1 to form a single permit, where such a format obviates the unnecessary duplication of information and the repetition of work by the operator or the competent authority.

*Article 24***Exemptions from permit requirements**

Member States may exempt from the requirement laid down in Article 23(1) establishments or undertakings for the following operations:

- (a) disposal of their own non-hazardous waste at the place of production; or
- (b) recovery of waste.

*Article 25***Conditions for exemptions**

1. Where a Member State wishes to allow exemptions, as provided for in Article 24, it shall lay down, in respect of each type of activity, general rules specifying the types and quantities of waste that may be covered by an exemption, and the method of treatment to be used.

Those rules shall be designed to ensure that waste is treated in accordance with Article 13. In the case of disposal operations referred to in point (a) of Article 24 those rules should consider best available techniques.

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2. In addition to the general rules provided for in paragraph 1, Member States shall lay down specific conditions for exemptions relating to hazardous waste, including types of activity, as well as any other necessary requirement for carrying out different forms of recovery and, where relevant, the limit values for the content of hazardous substances in the waste as well as the emission limit values.

3. Member States shall inform the Commission of the general rules laid down pursuant to paragraphs 1 and 2.

*Article 26***Registration**

Where the following are not subject to permit requirements, Member States shall ensure that the competent authority keeps a register of:

- (a) establishments or undertakings which collect or transport waste on a professional basis;
- (b) dealers or brokers; and
- (c) establishments or undertakings which are subject to exemptions from the permit requirements pursuant to Article 24.

Where possible, existing records held by the competent authority shall be used to obtain the relevant information for this registration process in order to reduce the administrative burden.

*Article 27***Minimum standards**

1. Technical minimum standards for treatment activities which require a permit pursuant to Article 23 may be adopted where there is evidence that a benefit in terms of the protection of human health and the environment would be gained from such minimum standards. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39(2).

2. Such minimum standards shall cover only those waste treatment activities that are not covered by Directive 96/61/EC or are not appropriate for coverage by that Directive.

3. Such minimum standards shall:

- (a) be directed to the main environmental impacts of the waste treatment activity;
- (b) ensure that the waste is treated in accordance with Article 13;
- (c) take into account best available techniques; and
- (d) as appropriate, include elements regarding the quality of treatment and the process requirements.



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4. Minimum standards for activities that require registration pursuant to points (a) and (b) of Article 26 shall be adopted where there is evidence that a benefit in terms of the protection of human health and the environment or in avoiding disruption to the internal market would be gained from such minimum standards, including elements regarding the technical qualification of collectors, transporters, dealers or brokers.

Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39(2).

## CHAPTER V

## PLANS AND PROGRAMMES

*Article 28***Waste management plans**

1. Member States shall ensure that their competent authorities establish, in accordance with Articles 1, 4, 13 and 16, one or more waste management plans.

Those plans shall, alone or in combination, cover the entire geographical territory of the Member State concerned.

2. The waste management plans shall set out an analysis of the current waste management situation in the geographical entity concerned, as well as the measures to be taken to improve environmentally sound preparing for re-use, recycling, recovery and disposal of waste and an evaluation of how the plan will support the implementation of the objectives and provisions of this Directive.

3. The waste management plans shall contain, as appropriate and taking into account the geographical level and coverage of the planning area, at least the following:

- (a) the type, quantity and source of waste generated within the territory, the waste likely to be shipped from or to the national territory, and an evaluation of the development of waste streams in the future;
- (b) existing waste collection schemes and major disposal and recovery installations, including any special arrangements for waste oils, hazardous waste or waste streams addressed by specific Community legislation;
- (c) an assessment of the need for new collection schemes, the closure of existing waste installations, additional waste installation infrastructure in accordance with Article 16, and, if necessary, the investments related thereto;
- (d) sufficient information on the location criteria for site identification and on the capacity of future disposal or major recovery installations, if necessary;

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- (e) general waste management policies, including planned waste management technologies and methods, or policies for waste posing specific management problems.

4. The waste management plan may contain, taking into account the geographical level and coverage of the planning area, the following:

- (a) organisational aspects related to waste management including a description of the allocation of responsibilities between public and private actors carrying out the waste management;
- (b) an evaluation of the usefulness and suitability of the use of economic and other instruments in tackling various waste problems, taking into account the need to maintain the smooth functioning of the internal market;
- (c) the use of awareness campaigns and information provision directed at the general public or at a specific set of consumers;
- (d) historical contaminated waste disposal sites and measures for their rehabilitation.

5. Waste management plans shall conform to the waste planning requirements laid down in Article 14 of Directive 94/62/EC and the strategy for the implementation of the reduction of biodegradable waste going to landfills, referred to in Article 5 of Directive 1999/31/EC.

#### *Article 29*

#### **Waste prevention programmes**

1. Member States shall establish, in accordance with Articles 1 and 4, waste prevention programmes not later than 12 December 2013.

Such programmes shall be integrated either into the waste management plans provided for in Article 28 or into other environmental policy programmes, as appropriate, or shall function as separate programmes. If any such programme is integrated into the waste management plan or into other programmes, the waste prevention measures shall be clearly identified.

2. The programmes provided for in paragraph 1 shall set out the waste prevention objectives. Member States shall describe the existing prevention measures and evaluate the usefulness of the examples of measures indicated in Annex IV or other appropriate measures.

The aim of such objectives and measures shall be to break the link between economic growth and the environmental impacts associated with the generation of waste.

**▼B**

3. Member States shall determine appropriate specific qualitative or quantitative benchmarks for waste prevention measures adopted in order to monitor and assess the progress of the measures and may determine specific qualitative or quantitative targets and indicators, other than those referred to in paragraph 4, for the same purpose.

4. Indicators for waste prevention measures may be adopted in accordance with the regulatory procedure referred to in Article 39(3).

5. The Commission shall create a system for sharing information on best practice regarding waste prevention and shall develop guidelines in order to assist the Member States in the preparation of the Programmes.

*Article 30***Evaluation and review of plans and programmes**

1. Member States shall ensure that the waste management plans and waste prevention programmes are evaluated at least every sixth year and revised as appropriate and, where relevant, in accordance with Articles 9 and 11.

2. The European Environment Agency is invited to include in its annual report a review of progress in the completion and implementation of waste prevention programmes.

*Article 31***Public participation**

Member States shall ensure that relevant stakeholders and authorities and the general public have the opportunity to participate in the elaboration of the waste management plans and waste prevention programmes, and have access to them once elaborated, in accordance with Directive 2003/35/EC or, if relevant, Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment<sup>(1)</sup>. They shall place the plans and programmes on a publicly available website.

*Article 32***Cooperation**

Member States shall cooperate as appropriate with the other Member States concerned and the Commission to draw up the waste management plans and the waste prevention programmes in accordance with Articles 28 and 29.

*Article 33***Information to be submitted to the Commission**

1. Member States shall inform the Commission of the waste management plans and waste prevention programmes referred to in Articles 28 and 29, once adopted, and of any substantial revisions to the plans and programmes.

<sup>(1)</sup> OJ L 197, 21.7.2001, p. 30.

**▼B**

2. The format for notifying the information on the adoption and substantial revisions of those plans and programmes shall be adopted in accordance with the regulatory procedure referred to in Article 39(3).

## CHAPTER VI

## INSPECTIONS AND RECORDS

*Article 34***Inspections**

1. Establishments or undertakings which carry out waste treatment operations, establishments or undertakings which collect or transport waste on a professional basis, brokers and dealers, and establishments or undertakings which produce hazardous waste shall be subject to appropriate periodic inspections by the competent authorities.

2. Inspections concerning collection and transport operations shall cover the origin, nature, quantity and destination of the waste collected and transported.

3. Member States may take account of registrations obtained under the Community Eco-Management and Audit Scheme (EMAS), in particular regarding the frequency and intensity of inspections.

*Article 35***Record keeping**

1. The establishments or undertakings referred to in Article 23(1), the producers of hazardous waste and the establishments and undertakings which collect or transport hazardous waste on a professional basis, or act as dealers and brokers of hazardous waste, shall keep a chronological record of the quantity, nature and origin of the waste, and, where relevant, the destination, frequency of collection, mode of transport and treatment method foreseen in respect of the waste, and shall make that information available, on request, to the competent authorities.

2. For hazardous waste, the records shall be preserved for at least three years except in the case of establishments and undertakings transporting hazardous waste which must keep such records for at least 12 months.

Documentary evidence that the management operations have been carried out shall be supplied at the request of the competent authorities or of a previous holder.

3. Member States may require the producers of non-hazardous waste to comply with paragraphs 1 and 2.

*Article 36***Enforcement and penalties**

1. Member States shall take the necessary measures to prohibit the abandonment, dumping or uncontrolled management of waste.

**▼B**

2. Member States shall lay down provisions on the penalties applicable to infringements of the provisions of this Directive and shall take all measures necessary to ensure that they are implemented. The penalties shall be effective, proportionate and dissuasive.

## CHAPTER VII

## FINAL PROVISIONS

*Article 37***Reporting and reviewing**

1. Every three years, Member States shall inform the Commission of the implementation of this Directive by submitting a sectoral report in an electronic form. This report shall also contain information on the management of waste oil and on the progress achieved in the implementation of the waste prevention programmes and, as appropriate, information on measures as foreseen by Article 8 on extended producer responsibility.

The report shall be drawn up on the basis of a questionnaire or outline established by the Commission in accordance with the procedure referred to in Article 6 of Council Directive 91/692/EEC of 23 December 1991 standardising and rationalising reports on the implementation of certain Directives relating to the environment <sup>(1)</sup>. The report shall be submitted to the Commission within nine months of the end of the three year period covered by it.

2. The Commission shall send the questionnaire or outline to the Member States six months before the start of the period covered by the sectoral report.

3. The Commission shall publish a report on the implementation of this Directive within nine months of receiving the sectoral reports from the Member States in accordance with paragraph 1.

4. In the first report that intervenes by 12 December 2014, the Commission shall review the implementation of this Directive, including the energy efficiency provisions, and will present a proposal for revision if appropriate. The report shall also assess the existing Member State waste prevention programmes, objectives and indicators and shall review the opportunity of Community level programmes, including producer responsibility schemes for specific waste streams, targets, indicators and measures related to recycling, as well as material and energy recovery operations that may contribute to fulfilling the objectives set out in Articles 1 and 4 more effectively.

*Article 38***Interpretation and adaptation to technical progress**

1. The Commission may develop guidelines for the interpretation of the definitions of recovery and disposal.

<sup>(1)</sup> OJ L 377, 31.12.1991, p. 48.

**▼B**

If necessary, the application of the formula for incineration facilities referred to in Annex II, R1, shall be specified. Local climatic conditions may be taken into account, such as the severity of the cold and the need for heating insofar as they influence the amounts of energy that can technically be used or produced in the form of electricity, heating, cooling or processing steam. Local conditions of the outermost regions as recognised in the fourth subparagraph of Article 299(2) of the Treaty and of the territories mentioned in Article 25 of the 1985 Act of Accession may also be taken into account. This measure, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39(2).

2. The Annexes may be amended in the light of scientific and technical progress. Those measures, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39(2).

*Article 39***Committee procedure**

1. The Commission shall be assisted by a committee.
2. Where reference is made to this paragraph, Article 5a(1) to (4) and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.
3. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

*Article 40***Transposition**

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 12 December 2010.

When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

*Article 41***Repeal and transitional provisions**

Directives 75/439/EEC, 91/689/EEC and 2006/12/EC are hereby repealed with effect from 12 December 2010.

**▼B**

However, from 12 December 2008, the following shall apply:

- (a) Article 10(4) of Directive 75/439/EEC shall be replaced by the following:

‘4. The reference method of measurement to determine the PCB/PCT content of waste oils shall be fixed by the Commission. That measure, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 18(4) of Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste (\*).

(\*) OJ L 114, 27.4.2006, p. 9.’;

- (b) Directive 91/689/EEC is hereby amended as follows:

- (i) Article 1(4) shall be replaced by the following:

‘4. For the purpose of this Directive “hazardous waste” means:

- waste classified as hazardous waste featuring on the list established by Commission Decision 2000/532/EC (\*) on the basis of Annexes I and II to this Directive. This waste must have one or more of the properties listed in Annex III. The list shall take into account the origin and composition of the waste and, where necessary, limit values of concentration. This list shall be periodically reviewed and, if necessary revised. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 18(4) of Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste (\*\*),
- any other waste which is considered by a Member State to display any of the properties listed in Annex III. Such cases shall be notified to the Commission and reviewed with a view to adapting the list. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 18(4) of Directive 2006/12/EC.

(\*) OJ L 226, 6.9.2000, p. 3.

(\*\*) OJ L 114, 27.4.2006, p. 9.’;

- (ii) Article 9 shall be replaced by the following:

*‘Article 9*

The measures necessary for adapting the Annexes of this Directive to scientific and technical progress and for revising the list of wastes referred to in Article 1(4), designed to amend non-essential elements of this Directive, inter alia by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 18(4) of Directive 2006/12/EC.’;

**▼B**

(c) Directive 2006/12/EC is hereby amended as follows:

(i) Article 1(2) shall be replaced by the following:

‘2. For the purposes of paragraph 1, point (a), Commission Decision 2000/532/EC (\*) featuring the list of waste belonging to the categories listed in Annex I to this Directive shall apply. This list shall be periodically reviewed and, if necessary, revised. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 18(4).

(\*) OJ L 226, 6.9.2000, p. 3.’;

(ii) Article 17 shall be replaced by the following:

*Article 17*

The measures necessary for adapting the Annexes to scientific and technical progress, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 18(4).’;

(iii) Article 18(4) shall be replaced by the following:

‘4. Where reference is made to this paragraph, Article 5a(1) to (4) and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.’.

References to the repealed Directives shall be construed as references to this Directive and shall be read in accordance with the correlation table set out in Annex V.

*Article 42*

**Entry into force**

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

*Article 43*

**Addressees**

This Directive is addressed to the Member States.





## ANNEX I

**DISPOSAL OPERATIONS**

- 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.)
- D 3 Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)
- D 4 Surface impoundment (e.g. placement of liquid or sludgy discards into pits, ponds or lagoons, etc.)
- D 5 Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)
- D 6 Release into a water body except seas/oceans
- D 7 Release to seas/oceans including sea-bed insertion
- D 8 Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12
- D 9 Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcination, etc.)
- D 10 Incineration on land
- D 11 Incineration at sea (\*)
- D 12 Permanent storage (e.g. emplacement of containers in a mine, etc.)
- D 13 Blending or mixing prior to submission to any of the operations numbered D 1 to D 12 (\*\*)
- D 14 Repackaging prior to submission to any of the operations numbered D 1 to D 13
- D 15 Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage, pending collection, on the site where the waste is produced) (\*\*\*)

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(\*) This operation is prohibited by EU legislation and international conventions.

(\*\*) If there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, inter alia, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12.

(\*\*\*) Temporary storage means preliminary storage according to point (10) of Article 3.



## ANNEX II

## RECOVERY OPERATIONS

- R 1 Use principally as a fuel or other means to generate energy (\*)
- R 2 Solvent reclamation/regeneration
- R 3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) (\*\*)
- R 4 Recycling/reclamation of metals and metal compounds
- R 5 Recycling/reclamation of other inorganic materials (\*\*\*)
- R 6 Regeneration of acids or bases

(\*) This includes incineration facilities dedicated to the processing of municipal solid waste only where their energy efficiency is equal to or above:

- 0,60 for installations in operation and permitted in accordance with applicable Community legislation before 1 January 2009,
- 0,65 for installations permitted after 31 December 2008,

using the following formula:

$$\text{Energy efficiency} = (E_p - (E_f + E_i)) / (0,97 \times (E_w + E_f))$$

In which:

$E_p$  means annual energy produced as heat or electricity. It is calculated with energy in the form of electricity being multiplied by 2,6 and heat produced for commercial use multiplied by 1,1 (GJ/year)

$E_f$  means annual energy input to the system from fuels contributing to the production of steam (GJ/year)

$E_w$  means annual energy contained in the treated waste calculated using the net calorific value of the waste (GJ/year)

$E_i$  means annual energy imported excluding  $E_w$  and  $E_f$  (GJ/year)

0,97 is a factor accounting for energy losses due to bottom ash and radiation.

This formula shall be applied in accordance with the reference document on Best Available Techniques for waste incineration.

►M2 The energy efficiency formula value will be multiplied by a climate correction factor (CCF) as shown below:

1. CCF for installations in operation and permitted in accordance with applicable Union legislation before 1 September 2015.

$$\text{CCF} = 1 \text{ if } \text{HDD} \geq 3\,350$$

$$\text{CCF} = 1,25 \text{ if } \text{HDD} \leq 2\,150$$

$$\text{CCF} = - (0,25/1\,200) \times \text{HDD} + 1,698 \text{ when } 2\,150 < \text{HDD} < 3\,350$$

2. CCF for installations permitted after 31 August 2015 and for installations under 1 after 31 December 2029:

$$\text{CCF} = 1 \text{ if } \text{HDD} \geq 3\,350$$

$$\text{CCF} = 1,12 \text{ if } \text{HDD} \leq 2\,150$$

$$\text{CCF} = - (0,12/1\,200) \times \text{HDD} + 1,335 \text{ when } 2\,150 < \text{HDD} < 3\,350$$

(The resulting value of CCF will be rounded at three decimal places).

►C1 The value of HDD (Heating Degree Days) should be taken as the average of annual HDD values for the incineration facility location, calculated for a period of 20 consecutive years before the year for which CCF is calculated. For the calculation of the value of HDD the following method established by Eurostat should be applied:  $\text{HDD} = (18\,^{\circ}\text{C} - T_m) \times d$  if  $T_m$  is lower than or equal to  $15\,^{\circ}\text{C}$  (heating threshold) and is nil if  $T_m$  is greater than  $15\,^{\circ}\text{C}$ ; where  $T_m$  is the mean  $(T_{\min} + T_{\max})/2$  outdoor temperature over a period of  $d$  days. Calculations are to be executed on a daily basis ( $d = 1$ ), added up to a year. ◀ ◀

(\*\*) This includes gasification and pyrolysis using the components as chemicals.

(\*\*\*) This includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.

**▼B**

- R 7 Recovery of components used for pollution abatement
- R 8 Recovery of components from catalysts
- R 9 Oil re-refining or other reuses of oil
- R 10 Land treatment resulting in benefit to agriculture or ecological improvement
- R 11 Use of waste obtained from any of the operations numbered R 1 to R 10
- R 12 Exchange of waste for submission to any of the operations numbered R 1 to R 11 (\*)
- R 13 Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage, pending collection, on the site where the waste is produced) (\*\*)

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(\*) If there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, inter alia, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11.

(\*\*) Temporary storage means preliminary storage according to point (10) of Article 3.

▼ **M1***ANNEX III***PROPERTIES OF WASTE WHICH RENDER IT HAZARDOUS**

**HP 1** ‘**Explosive:**’ waste which is capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings. Pyrotechnic waste, explosive organic peroxide waste and explosive self-reactive waste is included.

When a waste contains one or more substances classified by one of the hazard class and category codes and hazard statement codes shown in Table 1, the waste shall be assessed for HP 1, where appropriate and proportionate, according to test methods. If the presence of a substance, a mixture or an article indicates that the waste is explosive, it shall be classified as hazardous by HP 1.

Table 1: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents for the classification of wastes as hazardous by HP 1:

Hazard Class and Category Code(s)	Hazard statement Code(s)
Unst. Expl.	H 200
Expl. 1.1	H 201
Expl. 1.2	H 202
Expl. 1.3	H 203
Expl. 1.4	H 204
Self-react. A	H 240
Org. Perox. A	
Self-react. B	H 241
Org. Perox. B	

**HP 2** ‘**Oxidising:**’ waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials.

When a waste contains one or more substances classified by one of the hazard class and category codes and hazard statement codes shown in Table 2, the waste shall be assessed for HP 2, where appropriate and proportionate, according to test methods. If the presence of a substance indicates that the waste is oxidising, it shall be classified as hazardous by HP 2.

Table 2: Hazard Class and Category Code(s) and Hazard statement Code(s) for the classification of wastes as hazardous by HP 2:

Hazard Class and Category Code(s)	Hazard statement Code(s)
Ox. Gas 1	H 270
Ox. Liq. 1	H 271
Ox. Sol. 1	

▼ **M1**

Hazard Class and Category Code(s)	Hazard statement Code(s)
Ox. Liq. 2, Ox. Liq. 3	H 272
Ox. Sol. 2, Ox. Sol. 3	

**HP 3    ‘Flammable:’**

- flammable liquid waste liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;
- flammable pyrophoric liquid and solid waste solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
- flammable solid waste solid waste which is readily combustible or may cause or contribute to fire through friction;
- flammable gaseous waste gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;
- water reactive waste waste which, in contact with water, emits flammable gases in dangerous quantities;
- other flammable waste flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

When a waste contains one or more substances classified by one of the following hazard class and category codes and hazard statement codes shown in Table 3, the waste shall be assessed, where appropriate and proportionate, according to test methods. If the presence of a substance indicates that the waste is flammable, it shall be classified as hazardous by HP 3.

Table 3: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents for the classification of wastes as hazardous by HP 3:

Hazard Class and Category Code(s)	Hazard statement Code(s)
Flam. Gas 1	H220
Flam. Gas 2	H221
Aerosol 1	H222
Aerosol 2	H223
Flam. Liq. 1	H224
Flam. Liq.2	H225
Flam. Liq. 3	H226
Flam. Sol. 1	H228
Flam. Sol. 2	

▼ **M1**

Hazard Class and Category Code(s)	Hazard statement Code(s)
Self-react. CD	H242
Self-react. EF	
Org. Perox. CD	
Org. Perox. EF	
Pyr. Liq. 1	H250
Pyr. Sol. 1	
Self-heat. 1	H251
Self-heat. 2	H252
Water-react. 1	H260
Water-react. 2	H261
Water-react. 3	

**HP 4**     **‘Irritant — skin irritation and eye damage:’** waste which on application can cause skin irritation or damage to the eye.

When a waste contains one or more substances in concentrations above the cut-off value, that are classified by one of the following hazard class and category codes and hazard statement codes and one or more of the following concentration limits is exceeded or equalled, the waste shall be classified as hazardous by HP 4.

The cut-off value for consideration in an assessment for Skin corr. 1A (H314), Skin irrit. 2 (H315), Eye dam. 1 (H318) and Eye irrit. 2 (H319) is 1 %.

If the sum of the concentrations of all substances classified as Skin corr. 1A (H314) exceeds or equals 1 %, the waste shall be classified as hazardous according to HP 4.

If the sum of the concentrations of all substances classified as H318 exceeds or equals 10 %, the waste shall be classified as hazardous according to HP 4.

If the sum of the concentrations of all substances classified H315 and H319 exceeds or equals 20 %, the waste shall be classified as hazardous according to HP 4.

Note that wastes containing substances classified as H314 (Skin corr. 1A, 1B or 1C) in amounts greater than or equal to 5 % will be classified as hazardous by HP 8. HP 4 will not apply if the waste is classified as HP 8.

**HP 5**     **Spécific Toxicity:’**     **Target Organ**     **Toxicity (STOT)/Aspiration**  
waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.

**▼ M1**

When a waste contains one or more substances classified by one or more of the following hazard class and category codes and hazard statement codes shown in Table 4, and one or more of the concentration limits in Table 4 is exceeded or equalled, the waste shall be classified as hazardous according to HP 5. When substances classified as STOT are present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 5.

When a waste contains one or more substances classified as Asp. Tox. 1 and the sum of those substances exceeds or equals the concentration limit, the waste shall be classified as hazardous by HP 5 only where the overall kinematic viscosity (at 40 °C) does not exceed 20.5 mm<sup>2</sup>/s. <sup>(1)</sup>

Table 4: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 5

Hazard Class and Category Code(s)	Hazard statement Code(s)	Concentration limit
STOT SE 1	H370	1 %
STOT SE 2	H371	10 %
STOT SE 3	H335	20 %
STOT RE 1	H372	1 %
STOT RE 2	H373	10 %
Asp. Tox. 1	H304	10 %

**HP 6** ‘Acute Toxicity:’ waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

If the sum of the concentrations of all substances contained in a waste, classified with an acute toxic hazard class and category code and hazard statement code given in Table 5, exceeds or equals the threshold given in that table, the waste shall be classified as hazardous by HP 6. When more than one substance classified as acute toxic is present in a waste, the sum of the concentrations is required only for substances within the same hazard category.

The following cut-off values shall apply for consideration in an assessment:

— For Acute Tox. 1, 2 or 3 (H300, H310, H330, H301, H311, H331): 0.1 %;

— For Acute Tox. 4 (H302, H312, H332): 1 %.

Table 5: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 6

<sup>(1)</sup> The kinematic viscosity shall only be determined for fluids.

▼ **M1**

Hazard Class and Category Code(s)	Hazard statement Code(s)	Concentration limit
Acute Tox.1 (Oral)	H300	0,1 %
Acute Tox. 2 (Oral)	H300	0,25 %
Acute Tox. 3 (Oral)	H301	5 %
Acute Tox 4 (Oral)	H302	25 %
Acute Tox.1 (Dermal)	H310	0,25 %
Acute Tox.2 (Dermal)	H310	2,5 %
Acute Tox. 3 (Dermal)	H311	15 %
Acute Tox 4 (Dermal)	H312	55 %
Acute Tox 1 (Inhal.)	H330	0,1 %
Acute Tox.2 (Inhal.)	H330	0,5 %
Acute Tox. 3 (Inhal.)	H331	3,5 %
Acute Tox. 4 (Inhal.)	H332	22,5 %

**HP 7** ‘**Carcinogenic:**’ waste which induces cancer or increases its incidence.

When a waste contains a substance classified by one of the following hazard class and category codes and hazard statement codes and exceeds or equals one of the following concentration limits shown in Table 6, the waste shall be classified as hazardous by HP 7. When more than one substance classified as carcinogenic is present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 7.

Table 6: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 7

Hazard Class and Category Code(s)	Hazard statement Code(s)	Concentration limit
Carc. 1A	H350	0,1 %
Carc. 1B		
Carc. 2	H351	1,0 %

**HP 8** ‘**Corrosive:**’ waste which on application can cause skin corrosion.

When a waste contains one or more substances classified as Skin corr.1A, 1B or 1C (H314) and the sum of their concentrations exceeds or equals 5 %, the waste shall be classified as hazardous by HP 8.

The cut-off value for consideration in an assessment for Skin corr. 1A, 1B, 1C (H314) is 1.0 %.

**HP 9** ‘**Infectious:**’ waste containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.



▼ **M1**

The attribution of HP 9 shall be assessed by the rules laid down in reference documents or legislation in the Member States.

**HP 10    Toxic for reproduction:** waste which has adverse effects on sexual function and fertility in adult males and females, as well as developmental toxicity in the offspring.

When a waste contains a substance classified by one of the following hazard class and category codes and hazard statement codes and exceeds or equals one of the following concentration limits shown in Table 7, the waste shall be classified hazardous according to HP 10. When more than one substance classified as toxic for reproduction is present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 10.

Table 7: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 10

Hazard Class and Category Code(s)	Hazard statement Code(s)	Concentration limit
Repr. 1A	H360	0,3 %
Repr. 1B		
Repr. 2	H361	3,0 %

**HP 11    ‘Mutagenic:** waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell.

When a waste contains a substance classified by one of the following hazard class and category codes and hazard statement codes and exceeds or equals one of the following concentration limits shown in Table 8, the waste shall be classified as hazardous according to HP 11. When more than one substance classified as mutagenic is present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 11.

Table 8: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 11

Hazard Class and Category Code(s)	Hazard statement Code(s)	Concentration limit
Muta. 1A,	H340	0,1 %
Muta. 1B		
Muta. 2	H341	1,0 %

**▼ M1**

**HP 12 ‘Release of an acute toxic gas:’** waste which releases acute toxic gases (Acute Tox. 1, 2 or 3) in contact with water or an acid.

When a waste contains a substance assigned to one of the following supplemental hazards EUH029, EUH031 and EUH032, it shall be classified as hazardous by HP 12 according to test methods or guidelines.

**HP 13 ‘Sensitising:’** waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

When a waste contains a substance classified as sensitising and is assigned to one of the hazard statement codes H317 or H334 and one individual substance equals or exceeds the concentration limit of 10 %, the waste shall be classified as hazardous by HP 13.

**▼ M3**

**HP 14 ‘Ecotoxic:’** waste which presents or may present immediate or delayed risks for one or more sectors of the environment.

Waste which fulfils any of the following conditions shall be classified as hazardous by HP 14:

— Waste which contains a substance classified as ozone depleting assigned the hazard statement code H420 in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council <sup>(1)</sup> and the concentration of such a substance equals or exceeds the concentration limit of 0,1 %.

$$[c(H420) \geq 0,1 \, \%]$$

— Waste which contains one or more substances classified as aquatic acute assigned the hazard statement code H400 in accordance with Regulation (EC) No 1272/2008 and the sum of the concentrations of those substances equals or exceeds the concentration limit of 25 %. A cut-off value of 0,1 % shall apply to such substances.

$$[\Sigma c(H400) \geq 25 \, \%]$$

— Waste which contains one or more substances classified as aquatic chronic 1, 2 or 3 assigned to the hazard statement code(s) H410, H411 or H412 in accordance with Regulation (EC) No 1272/2008, and the sum of the concentrations of all substances classified as aquatic chronic 1 (H410) multiplied by 100 added to the sum of the concentrations of all substances classified as aquatic chronic 2 (H411) multiplied by 10 added to the sum of the concentrations of all substances classified as aquatic chronic 3 (H412) equals or exceeds the concentration limit of 25 %. A cut-off value of 0,1 % applies to substances classified as H410 and a cut-off value of 1 % applies to substances classified as H411 or H412.

$$[100 \times \Sigma c(H410) + 10 \times \Sigma c(H411) + \Sigma c(H412) \geq 25 \, \%]$$

<sup>(1)</sup> Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1).

**▼ M3**

- Waste which contains one or more substances classified as aquatic chronic 1, 2, 3 or 4 assigned the hazard statement code(s) H410, H411, H412 or H413 in accordance with Regulation (EC) No 1272/2008, and the sum of the concentrations of all substances classified as aquatic chronic equals or exceeds the concentration limit of 25 %. A cut-off value of 0,1 % applies to substances classified as H410 and a cut-off value of 1 % applies to substances classified as H411, H412 or H413.

$$[\Sigma c \text{ H410} + \Sigma c \text{ H411} + \Sigma c \text{ H412} + \Sigma c \text{ H413} \geq 25 \text{ \%}]$$

Where:  $\Sigma$  = sum and c = concentrations of the substances.

**▼ M1**

**HP 15 ‘Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste’.**

When a waste contains one or more substances assigned to one of the hazard statements or supplemental hazards shown in Table 9, the waste shall be classified as hazardous by HP 15, unless the waste is in such a form that it will not under any circumstance exhibit explosive or potentially explosive properties.

Table 9: Hazard statements and supplemental hazards for waste constituents for the classification of wastes as hazardous by HP 15

Hazard Statement(s)/Supplemental Hazard(s)	
May mass explode in fire	H205
Explosive when dry	EUH001
May form explosive peroxides	EUH019
Risk of explosion if heated under confinement	EUH044

In addition, Member States may characterise a waste as hazardous by HP 15 based on other applicable criteria, such as an assessment of the leachate.

**▼ M3****▼ C2**

*Test methods:*

The methods to be used are described in Commission Regulation (EC) No 440/2008 <sup>(1)</sup> and in other relevant CEN notes or other internationally recognised test methods and guidelines.

<sup>(1)</sup> ► **C2** Commission Regulation (EC) No 440/2008 of 30 May 2008 laying down test methods pursuant to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (OJ L 142, 31.5.2008, p. 1). ◀



#### ANNEX IV

### EXAMPLES OF WASTE PREVENTION MEASURES REFERRED TO IN ARTICLE 29

#### Measures that can affect the framework conditions related to the generation of waste

1. The use of planning measures, or other economic instruments promoting the efficient use of resources.
2. The promotion of research and development into the area of achieving cleaner and less wasteful products and technologies and the dissemination and use of the results of such research and development.
3. The development of effective and meaningful indicators of the environmental pressures associated with the generation of waste aimed at contributing to the prevention of waste generation at all levels, from product comparisons at Community level through action by local authorities to national measures.

#### Measures that can affect the design and production and distribution phase

4. The promotion of eco-design (the systematic integration of environmental aspects into product design with the aim to improve the environmental performance of the product throughout its whole life cycle).
5. The provision of information on waste prevention techniques with a view to facilitating the implementation of best available techniques by industry.
6. Organise training of competent authorities as regards the insertion of waste prevention requirements in permits under this Directive and Directive 96/61/EC.
7. The inclusion of measures to prevent waste production at installations not falling under Directive 96/61/EC. Where appropriate, such measures could include waste prevention assessments or plans.
8. The use of awareness campaigns or the provision of financial, decision making or other support to businesses. Such measures are likely to be particularly effective where they are aimed at, and adapted to, small and medium sized enterprises and work through established business networks.
9. The use of voluntary agreements, consumer/producer panels or sectoral negotiations in order that the relevant businesses or industrial sectors set their own waste prevention plans or objectives or correct wasteful products or packaging.
10. The promotion of creditable environmental management systems, including EMAS and ISO 14001.

#### Measures that can affect the consumption and use phase

11. Economic instruments such as incentives for clean purchases or the institution of an obligatory payment by consumers for a given article or element of packaging that would otherwise be provided free of charge.
12. The use of awareness campaigns and information provision directed at the general public or a specific set of consumers.
13. The promotion of creditable eco-labels.

**▼B**

14. Agreements with industry, such as the use of product panels such as those being carried out within the framework of Integrated Product Policies or with retailers on the availability of waste prevention information and products with a lower environmental impact.
15. In the context of public and corporate procurement, the integration of environmental and waste prevention criteria into calls for tenders and contracts, in line with the Handbook on environmental public procurement published by the Commission on 29 October 2004.
16. The promotion of the reuse and/or repair of appropriate discarded products or of their components, notably through the use of educational, economic, logistic or other measures such as support to or establishment of accredited repair and reuse-centres and networks especially in densely populated regions.



## ANNEX V

## CORRELATION TABLE

Directive 2006/12/EC	This Directive
Article 1(1)(a)	Article 3(1)
Article 1(1)(b)	Article 3(5)
Article 1(1)(c)	Article 3(6)
Article 1(1)(d)	Article 3(9)
Article 1(1)(e)	Article 3(19)
Article 1(1)(f)	Article 3(15)
Article 1(1)(g)	Article 3(10)
Article 1(2)	Article 7
Article 2(1)	Article 2(1)
Article 2(1)(a)	Article 2(1)(a)
Article 2(1)(b)	Article 2(2)
Article 2(1)(b)(i)	Article 2(1)(d)
Article 2(1)(b)(ii)	Article 2(2)(d)
Article 2(1)(b)(iii)	Article 2(1)(f) and (2)(c)
Article 2(1)(b)(iv)	Article 2(2)(a)
Article 2(1)(b)(v)	Article 2(1)(e)
Article 2(2)	Article 2(4)
Article 3(1)	Article 4
Article 4(1)	Article 13
Article 4(2)	Article 36(1)
Article 5	Article 16
Article 6	—
Article 7	Article 28
Article 8	Article 15
Article 9	Article 23
Article 10	Article 23
Article 11	Articles 24 and 25
Article 12	Article 26
Article 13	Article 34
Article 14	Article 35
Article 15	Article 14



Directive 2006/12/EC	This Directive
Article 16	Article 37
Article 17	Article 38
Article 18(1)	Article 39(1)
—	Article 39(2)
Article 18(2)	—
Article 18(3)	Article 39(3)
Article 19	Article 40
Article 20	—
Article 21	Article 42
Article 22	Article 43
Annex I	—
Annex IIA	Annex I
Annex IIB	Annex II

Directive 75/439/EEC	This Directive
Article 1(1)	Article 3(18)
Article 2	Articles 13 and 21
Article 3(1) and (2)	—
Article 3(3)	Article 13
Article 4	Article 13
Article 5(1)	—
Article 5(2)	—
Article 5(3)	—
Article 5(4)	Articles 26 and 34
Article 6	Article 23
Article 7(a)	Article 13
Article 7(b)	—
Article 8(1)	—
Article 8(2)(a)	—
Article 8(2)(b)	—
Article 8(3)	—
Article 9	—
Article 10(1)	Article 18



Directive 75/439/EEC	This Directive
Article 10(2)	Article 13
Article 10(3) and (4)	—
Article 10(5)	Articles 19, 21, 25, 34 and 35
Article 11	—
Article 12	Article 35
Article 13(1)	Article 34
Article 13(2)	—
Article 14	—
Article 15	—
Article 16	—
Article 17	—
Article 18	Article 37
Article 19	—
Article 20	—
Article 21	—
Article 22	—
Annex I	—

Directive 91/689/EEC	This Directive
Article 1(1)	—
Article 1(2)	—
Article 1(3)	—
Article 1(4)	Articles 3(2) and 7
Article 1(5)	Article 20
Article 2(1)	Article 23
Article 2(2)-(4)	Article 18
Article 3	Articles 24, 25 and 26
Article 4(1)	Article 34(1)
Article 4(2)(3)	Article 35
Article 5(1)	Article 19(1)
Article 5(2)	Article 34(2)
Article 5(3)	Article 19(2)
Article 6	Article 28



**▼B**

Directive 91/689/EEC	This Directive
Article 7	—
Article 8	—
Article 9	—
Article 10	—
Article 11	—
Article 12	—
Annexes I and II	—
Annex III	Annex III