STATUTORY INSTRUMENTS

2004 No. 1375

ENVIRONMENTAL PROTECTION, ENGLAND AND WALES

The Landfill (England and Wales) (Amendment) Regulations 2004

Made - - - -	*17th May 2004*
Laid before Parliament	*19th May 2004*
Coming into force	
for the purposes of Regulations 4(2), 7, 8(1) and 9	*15th June 2004*
for all other purposes	*16th July 2005*

The Secretary of State, in exercise of the powers conferred on her by section 2 of the Pollution Prevention and Control Act 1999(**1**) ("the 1999 Act"), having in accordance with section 2(4) of the 1999 Act consulted the Environment Agency, such bodies or persons appearing to her to be representative of the interests of local government, industry, agriculture and small businesses respectively, and such other bodies or persons as she considers appropriate, makes the following regulations:

Citation, commencement and extent

1.—(1) These Regulations may be cited as the Landfill (England and Wales) (Amendment) Regulations 2004 and shall come into force on 16th July 2005 except for regulations 4(2), 7, 8(1) and 9 which shall come into force on 15th June 2004.

(2) These Regulations extend to England and Wales.

Interpretation

2. In these Regulations—

(**1**) 1999 c. 24; the Secretary of State can exercise these powers only in relation to England and Wales—*see* section 53 of the Scotland Act 1998 (c. 46) and section 5(3) of the 1999 Act. Directive 99/31/EC on the landfill of waste (OJNo. L182, 16.7.1999, p. 1) was designated by S.I. 2001/3585 as a relevant directive for the purposes of paragraph 20(2)(c) of Schedule 1 to the 1999 Act.

"the 2000 Regulations" means the Pollution Prevention and Control (England and Wales) Regulations(**2**); and

"the 2002 Regulations" means the Landfill (England and Wales) Regulations 2002(**3**).

Amendment of the 2002 Regulations

3. The 2002 Regulations are amended in accordance with the following regulations.

Amendment of Part 1 (Preliminary)

4.—(1) In regulation 2—

(a) at the appropriate places, insert—

> ""SIC Code" means a code included in "The United Kingdom Standard Industrial Classification of Economic Activities 2003", published by the Office for National Statistics on 31st December 2002 and implemented on 1st January 2003(**4**);"; and

"stable, non-reactive hazardous waste" means hazardous waste, the leaching behaviour of which will not change adversely in the long-term, under landfill design conditions or foreseeable accidents—

(a) in the waste alone (for example, by biodegradation);

(b) under the impact of long-term ambient conditions (for example, water, air, temperature, mechanical constraints); or

(c) by the impact of other wastes (including waste products such as leachate and gas);"; and

(b) for the definition of "relevant waste acceptance criteria" substitute—

> ""relevant waste acceptance criteria" means, in relation to a landfill, the waste acceptance criteria under Parts 1 and 3 of Schedule 1 which apply to the class of landfill to which that landfill belongs;".

(2) At the end of regulation 4(b) insert "in a landfill".

Amendment of Part II (Landfill Permits)

5.—(1) In regulation 10—

(a) for paragraph (2) substitute "The operator of a landfill shall ensure that only waste which meets the relevant waste acceptance criteria shall be accepted at the landfill"; and

(b) omit paragraphs (3) to (5).

(2) In regulation 12—

(a) for paragraphs (1) and (2) substitute—

"(1) The operator of a landfill shall ensure that waste shall only be accepted at the landfill if—

(a) it has been subject to the relevant waste acceptance procedure set out in Part 2 of Schedule 1; and

(b) any sampling or testing required under Parts 2 or 3 of Schedule 1 is carried out in accordance with Part 4 of that Schedule.

(**2**) S.I 2000/1973; amended by S.I. 2002/1559; there are other amending instruments but none is relevant.
(**3**) S.I 2002/1559.
(**4**) ISBN 0-11-62-11-16417.

(2) Subject to paragraph (2A) the operator shall visually inspect waste at the entrance to the landfill and at the point of deposit and shall satisfy himself that it conforms to the description provided in the documentation submitted by the holder.

(2A) Where the operator is also the producer of the waste, the visual inspection required by paragraph (2) may be made at the point of dispatch.

(2B) The operator shall at appropriate periodic intervals—

(a) test the waste to establish whether it corresponds to the description in the accompanying documents, by checking its appearance, odour and any other relevant, readily determined properties; and

(b) take representative samples for analysis which shall thereafter be retained, together with the results of the analysis for a period of at least one month.”; and

(b) in paragraph (3)(f) after “its” insert “identity and”.

Substitution of Schedule 1 (Waste acceptance criteria)

6. The Schedule (which substitutes a schedule for Schedule 1 to the 2002 Regulations) shall have effect.

Amendment of Schedule 3 (Minimum monitoring procedures for landfills)

7. In paragraph 4(4) of Schedule 3 for “As” substitute “anionic surfactants”.

Amendment of Schedule 4 (Transitional Provisions)

8.—(1) In paragraph 1 of Schedule 4—

(a) in sub-paragraph (8) for “within sub-paragraph (6)” substitute “within sub-paragraph (6), (9A) or (9B)”;

(b) after sub-paragraph (9) insert—

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

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

(b) no application for a landfill permit is duly made within the period specified in the notice; or

(c) an application for a landfill permit is made within the period specified in the notice but then withdrawn or deemed withdrawn at some time after the end of that period,

the Environment Agency shall ensure closure of the landfill site as soon as possible (in whole or part) in accordance with regulation 15.

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

(c) for sub-paragraph (13) substitute—

“(13) In this Schedule—

(a) “the relevant requirements of these Regulations” do not include the requirements of paragraph 1 of Schedule 2; and

(b) "determination date" means—

(i) for a landfill (in whole or part) in relation to which a permit is refused and the applicant for the permit appeals against refusal, the date of affirmation of the refusal;

(ii) for a landfill (in whole or part) in relation to which a permit is refused and no appeal is made against the refusal, the date immediately following the last day, determined in accordance with paragraph 2 of Schedule 8 to the 2000 Regulations, on which a notice of appeal might have been given.".

(2) In paragraph 3 of Schedule 4 in sub-paragraph (5), for "in the circumstances specified in regulation 10(3)(c) and (4)" substitute "if the waste is stable non-reactive hazardous waste and it fulfils the relevant waste acceptance criteria".

Amendment of the 2000 Regulations

9.—(1) In paragraph 2 of Part 1 of Schedule 3 to the 2000 Regulations—

(a) at the start of sub-paragraph (12) insert "Subject to sub-paragraph (12A)"; and

(b) insert after sub-paragraph (12)—

"(12A) Sub-paragraph (12) shall not apply in a case where the regulator has determined in accordance with the preceding provisions of this paragraph that the primary activity of the installation is one which falls within Part A (1) of Section 5.2 in Part 1 of Schedule 1.".

(2) In paragraph 2(1)(c) of Schedule 8 after "enforcement notice" insert "a closure notice".

Elliot Morley
Minister of State,
Department for Environment Food and Rural Affairs

17th May 2004

SCHEDULE Regulation 6

Amendment to Schedule 1of the 2002 Regulations

1. For Schedule 1 of the 2002 Regulations substitute—

"SCHEDULE 1

CRITERIA AND PROCEDURES FOR THE ACCEPTANCE OF WASTE AT LANDFILLS

PART 1

GENERAL PRINCIPLES FOR THE ACCEPTANCE OF WASTE AT LANDFILLS

General principles for the acceptance of waste at all kinds of landfill

1.—(1) The following criteria shall apply to the acceptance of waste at any landfill.

(2) Waste may only be accepted at a landfill where its acceptance would not—

(a) result in unacceptable emissions to groundwater, surface water or the surrounding environment;

(b) jeopardise environment protection systems (such as liners, leachate and gas collection and treatment systems) at the landfill;

(c) put at risk waste stabilisation processes (such as degradation or wash out) within the landfill; or

(d) endanger human health.

Additional general principles for the acceptance of waste at landfills for hazardous waste

2. Waste may only be accepted at a landfill for hazardous waste if—

(a) it is listed on the Hazardous Waste List of the European Waste Catalogue(**5**) or has similar characteristics to those so listed; and

(b) its total content or leachability—

(i) does not present a short term occupational risk or an environmental risk; and

(ii) would not prevent the stabilisation of the landfill within its projected lifetime taking account of its after care period following closure.

Additional general principles for the acceptance of waste at landfills for non-hazardous waste

3. Waste may only be accepted at a landfill for non-hazardous waste if—

(a) it is listed on the Hazardous Waste List of the European Waste Catalogue or has similar characteristics to those so listed and—

(i) it is stable non-reactive hazardous waste;

(**5**) Council Decision 2000/532/EC (OJ L226, 6.9.2000, p. 3) as amended by Council Decisions 2001/118/EC (OJ L47, 16.2.2001, p. 1), 2001/119/EC (OJ L47, 16.2.2001, p. 32) and 2001/573/EC (OJ L203, 28.7.2001, p. 18).

(ii) its leaching behaviour is equivalent to that of non-hazardous waste which meets the relevant waste acceptance criteria; and

(iii) it is not deposited in cells used or intended to be used for the disposal of biodegradable non-hazardous waste; or

(b) it is any other waste listed on the European Waste Catalogue or has similar characteristics to those so listed.

PART 2

PROCEDURE FOR THE ACCEPTANCE OF WASTE AT LANDFILLS

Interpretation of Part 2

4. In this Part "waste regularly generated in the same process" shall mean individual and consistent wastes regularly generated in the same process, where—

(a) the installation and the process generating the waste are well known and the input materials to the process and the process itself are well defined;

(b) the operator of the installation provides all necessary information and informs the operator of the landfill of changes to the process (especially changes to the input material);

(c) the waste comes from a single installation or if from different installations, it can be identified as single stream with common characteristics within known boundaries (eg bottom ash from the incineration of municipal waste); and

(d) there is no significant change in the generation processes,

but shall not include wastes which do not require testing in accordance with paragraph 5(4)(a) or (c).

Basic characterisation

5.—(1) Each type of waste to be accepted at a landfill shall be characterised to ensure all information necessary for safe disposal of the waste in the long term is available including at least the following information—

(a) the source and origin of the waste;

(b) the process producing the waste (including a description of the process, its SIC Code and the characteristics of its raw materials and products);

(c) the waste treatment applied in compliance with regulation 10, or a statement of reasons why such treatment is not considered necessary;

(d) the composition of the waste, including where relevant, an assessment of it against the relevant limit values in Part 3 and, where necessary and available, its other characteristic properties;

(e) the appearance of the waste (including its smell, colour, consistency and physical form);

(f) the Code applicable to the waste under the European Waste Catalogue;

(g) in the case of hazardous waste, the relevant properties which render it hazardous according to Annex III of the Hazardous Waste Directive(**6**);

(**6**) OJ No. L377, 31.12.91, p. 20 as amended by Council Directive 94/31/EC (OJ L168, 2.7.1994, p. 28).

(h) evidence demonstrating that the waste is not prohibited under regulation 9;

(i) the landfill class at which the waste may be accepted;

(j) the likely behaviour (including, where relevant, leaching behaviour) of the waste in a landfill and any additional precautions that need to be taken at the landfill as a consequence; and

(k) whether the waste can be recycled or recovered.

(2) For waste regularly generated in the same process, the following additional information shall be provided—

(a) the compositional range for the individual wastes;

(b) the range and variability of characteristic properties;

(c) if appropriate, the leachability of the wastes determined by a batch leaching test, a percolation test or a pH dependence test;

(d) identification of the key variables to be tested for compliance testing, the frequency of compliance testing and options for simplification of compliance testing;

(e) in the case of waste which is produced in the same process in different installations, the scope of the evaluation which must include a sufficient number of measurements to show the range and variability of the characteristic properties of the waste.

(3) In order to characterise waste, it must be subject to prior tests in accordance with Part 4 of this Schedule to establish its composition and its leaching behaviour.

(4) Testing is not required in the case of any of the following types of waste—

(a) waste which may be accepted without testing under paragraphs 10 or 13 of Part 3 of this Schedule;

(b) waste in respect of which the Environment Agency is satisfied that all the necessary information for the characterisation under sub-paragraph (1) can be provided without testing; or

(c) waste in respect of which the Environment Agency is satisfied by way of a documented justification supplied to it that—

(i) the waste is of a type where testing is impractical or appropriate testing procedures and acceptance criteria are not available; or

(ii) the waste is of a type which is acceptable at the landfill class in question.

(5) Records of the information obtained for the purposes of characterisation under this paragraph shall be retained by the operator for at least two years after the date of characterisation.

Compliance testing

6.—(1) Waste regularly generated in the same process shall not require each batch to be tested as part of its basic characterisation but may instead be subject to compliance testing in accordance with this paragraph.

(2) Compliance testing shall consist of one or more of the tests applied in accordance with paragraph 5(3) above and shall include—

(a) testing of the key variables established under paragraph 5 so as to demonstrate that the waste meets the limit values for those variables;

(b) a batch leaching test using the same method as was used for the test undertaken under paragraph 5(3); and

(c) tests which demonstrate that the waste complies with the results of the characterisation carried out under paragraph 5 and the relevant acceptance criteria described in Parts 1 and 3 of this Schedule.

(3) Compliance testing shall be carried out at the times established in the characterisation but shall be no less frequent than once a year.

(4) Records of the compliance testing shall be retained by the operator for a period of not less than two years.

Wastes accepted without testing

7. Any type of waste which may be accepted without testing under paragraph 5(4) shall be subject to checking for compliance with its basic characterisation established under paragraph 5.

PART 3

WASTE ACCEPTANCE CRITERIA

Interpretation of Part 3

8. In this Part—

(a) granular waste includes all wastes that are not monolithic; and

(b) a mono-fill landfill means a landfill which is authorised to accept only a single waste type.

Criteria for landfills for inert waste

9. Waste may only be accepted at a landfill for inert waste if it meets either the requirements of paragraph 10 (wastes acceptable without testing at landfills for inert waste) or paragraph 11 (limit values for waste acceptable at landfills for inert waste).

Wastes acceptable without testing at landfills for inert waste

10.—(1) Subject to sub-paragraph (2), waste of the types set out in Table 1 may be accepted without testing at landfills for inert waste provided the waste is—

(a) from a single stream waste of a single waste type (unless different waste types from the list in Table 1 are accepted together); and

(b) is from a single source.

(2) Waste referred to in sub-paragraph (1) must be tested where there is suspicion of contamination or doubt that the waste meets the definition of inert waste in regulation 2 or the criteria in paragraph 11.

(3) If such testing reveals contamination or the presence of other materials or substances such as metals, asbestos, plastics or chemicals, the waste must not be accepted at a landfill for inert waste if the extent of the contamination is such as to increase the risk associated with the waste sufficiently to justify its disposal in other classes of landfill.

Table 1

EWC Code	*Description*	*Restrictions*
10 11 03	Waste glass based fibrous materials	Only without organic binders
15 01 07	Glass packaging	
17 01 01	Concrete	Selected C&D waste only[(a)]
17 01 02	Bricks	Selected C&D waste only[(a)]
17 01 03	Tiles and ceramics	Selected C&D waste only[(a)]
17 01 07	Mixtures of concrete, bricks, tiles and ceramics	Selected C&D waste only[(a)]
17 02 02	Glass	
17 05 04	Soil and stones	Excluding topsoil, peat; excluding soil and stones from contaminated sites
19 12 05	Glass	
20 01 02	Glass	Separately collected glass only
20 02 02	Soil and stones	Only from garden and parks waste; Excluding top soil, peat

(a) Selected construction and demolition waste (C & D waste): with low contents of other types of materials (like metals, plastic, organics, wood, rubber, etc). The origin of the waste must be known.
No C & D waste from constructions, polluted with inorganic or organic dangerous substances, eg because of production processes in the construction, soil pollution, storage and usage of pesticides or other dangerous substances, etc., unless it is made clear that the demolished construction was not significantly polluted.
No C & D waste from constructions, treated, covered or painted with materials, containing dangerous substances in significant amounts.

Limit values for waste acceptable at landfills for inert waste

11. The following limit values shall apply to waste accepted at landfills for inert waste other than waste which may be accepted without testing under paragraph 10—

(a) the limit values for leaching set out in Table 2; and

(b) the limit values for total content of organic parameters set out in Table 3.

Table 2

Component	*Symbol*	*L/S = 10 l/kg mg/kg dry substance*
Arsenic	As	0.5

(a) This limit value for sulphate may be increased to 6,000 mg/kg, provided that the value of C_0 (the first eluate of a percolation test at L/S = 0.1 l/kg) does not exceed 1,500 mg/l. It will be necessary to use a percolation test to determine the limit value at L/S = 0.1 l/kg under initial equilibrium conditions.

(b) If the waste does not meet this value for Dissolved Organic Carbon (DOC) at its own pH value, it may alternatively be tested at L/S = 10 l/kg and a pH between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 500 mg/kg.

(c) The value for Total Dissolved Solids can be used alternatively to the values for Sulphate and Chloride.

Component	*Symbol*	*L/S = 10 l/kg mg/kg dry substance*
Barium	Ba	20
Cadmium	Cd	0.04
Total Chromium	Cr_{total}	0.5
Copper	Cu	2
Mercury	Hg	0.01
Molybdenum	Mo	0.5
Nickel	Ni	0.4
Lead	Pb	0.5
Antimony	Sb	0.06
Selenium	Se	0.1
Zinc	Zn	4
Chloride	Cl	800
Fluoride	F	10
Sulphate[(a)]	SO_4^{2-}	1,000
Phenol index	PI	1
Dissolved Organic Carbon[(b)]	DOC	500
Total Dissolved Solids[(c)]	TDS	4,000

(a) This limit value for sulphate may be increased to 6,000 mg/kg, provided that the value of C_0 (the first eluate of a percolation test at L/S = 0.1 l/kg) does not exceed 1,500 mg/l. It will be necessary to use a percolation test to determine the limit value at L/S = 0.1 l/kg under initial equilibrium conditions.

(b) If the waste does not meet this value for Dissolved Organic Carbon (DOC) at its own pH value, it may alternatively be tested at L/S = 10 l/kg and a pH between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 500 mg/kg.

(c) The value for Total Dissolved Solids can be used alternatively to the values for Sulphate and Chloride.

Table 3

Parameter	*Value mg/kg*
Total Organic Carbon (TOC)[(1)]	30,000
BTEX compounds (benzene, toluene, ethyl benzene & xylenes)	6
Polychlorinated biphenyls (PCBs) (7 congeners)	1
Mineral oil (C10 to C40)	500

(1) In the case of soils, a higher limit value may be permitted by the Environment Agency, provided a Dissolved Organic Carbon value of 500 mg/kg is achieved at L/S 10 l/kg at the pH of the soil or at a pH value of between 7.5 and 8.0.

Criteria for landfills for non-hazardous waste

12. Waste may only be accepted at a landfill for non-hazardous waste if it meets either the requirements of paragraph 13 (waste acceptable without testing at landfills for non-hazardous waste) or such of the following paragraphs as apply to the waste in question—

(a) paragraph 14 (criteria for granular stable non-reactive hazardous waste and non-hazardous waste landfilled in the same cell with such waste);

(b) paragraph 15 (criteria relating to gypsum based waste);

(c) paragraph 16 (criteria for asbestos waste).

Wastes acceptable without testing at landfills for non-hazardous waste

13.—(1) Subject to sub-paragraph (2), waste of the following types may be accepted without testing at landfills for non-hazardous waste—

(a) municipal waste that is classified as non-hazardous in Chapter 20 of the European Waste Catalogue; and

(b) separately collected fractions of household wastes and the same non-hazardous materials from other origins.

(2) Waste referred to in sub-paragraph (1) must meet the following criteria—

(a) it must have been subject to prior treatment in accordance with regulation 10;

(b) it must not be contaminated to such an extent as to justify its disposal in other facilities; and

(c) it must not be accepted in cells where stable, non-reactive hazardous waste is accepted in accordance with paragraph 3(a) of Part 1 of this Schedule.

(3) Waste comprising construction materials containing asbestos and other suitable materials may also be accepted at landfills for non-hazardous waste without testing where it meets the criteria in paragraph 3(a) and is landfilled in accordance with paragraph 16.

Criteria for granular stable non-reactive hazardous waste and non-hazardous waste deposited in the same cell with such waste

14.—(1) The following criteria shall apply to granular, stable, non-reactive hazardous waste and to granular non-hazardous waste which is landfilled in the same cell with such waste—

(a) the limit values set out in Table 4; and

(b) the additional criteria set out in Table 5.

(2) Monolithic stable non-reactive hazardous waste and monolithic non-hazardous waste landfilled in the same cell with such waste shall only be accepted if it meets criteria which provide the same level of environmental protection as the values in Tables 4 and 5.

Table 4

Component	*Symbol*	*L/S = 10 l/kg*[(a)] *mg/kg dry substance*
Arsenic	As	2
Barium	Ba	100
Cadmium	Cd	1
Total Chromium	Cr_{total}	10
Copper	Cu	50
Mercury	Hg	0.2
Molybdenum	Mo	10
Nickel	Ni	10
Lead	Pb	10
Antimony	Sb	0.7
Selenium	Se	0.5
Zinc	Zn	50
Chloride	Cl	15,000
Fluoride	F	150
Sulphate	SO_4^{2-}	20,000
Dissolved Organic Carbon[(b)]	DOC	800
Total Dissolved Solids[(c)]	TDS	60,000

(a) The Environment Agency may include conditions in a permit authorising limit values for specific parameters (other than dissolved organic carbon) up to three times higher for waste accepted in a mono-fill landfill taking into account the characteristics of the landfill and its surroundings and provided a risk assessment demonstrates that emissions (including leachate) from the landfill will present no additional risk to the environment.

(b) If the waste does not meet this value for Dissolved Organic Carbon (DOC) at its own pH, it may alternatively be tested at L/S = 10 l/kg and a pH of between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 800 mg/kg.

(c) The values for TDS (Total Dissolved Solids) can be used alternatively to the values for Sulphate and Chloride.

Table 5

Parameter	*Value*
Total Organic Carbon (TOC)[(a)]	5%
pH	minimum 6
Acid Neutralisation Capacity (ANC)	Must be evaluated between the pH of the waste in question, pH6 and the pH of the site leachate

(a) If this value is not achieved, a higher limit value may be permitted by the Environment Agency, provided that the Dissolved Organic Carbon (DOC) value of 800 mg/kg is achieved at L/S=10 l/kg, either at the material's own pH or at a pH value between 7.5 and 8.0.

Criteria relating to gypsum based waste

15.—(1) Gypsum based and other high sulphate bearing materials may only be disposed of in landfills for non-hazardous waste in cells where no biodegradable waste is accepted.

(2) The limit values for total organic carbon and dissolved organic carbon given in Tables 4 and 5 above shall apply to wastes landfilled with gypsum based materials.

Criteria for asbestos waste

16. The following criteria apply to the landfilling of asbestos waste and to construction materials containing asbestos—

(a) the waste must contain no hazardous substances other than bound asbestos, including fibres bound by a binding agent or packed in plastic;

(b) construction material containing asbestos or other suitable asbestos waste can only be accepted in a landfill dedicated to these wastes or in a separate cell of a non-dedicated landfill, provided it is sufficiently self-contained;

(c) the zone of deposit must be covered daily and before each compacting operation with appropriate material and, if the waste is not packed, it is regularly sprinkled;

(d) a final top cover is put on the landfill or cell in order to avoid the dispersion of fibres;

(e) no works are carried out on the landfill or cell that could lead to a release of fibres (eg the drilling of holes); and

(f) appropriate measures are taken to limit the possible uses of the land after closure of the landfill in order to avoid human contact with the waste.

Criteria for waste acceptable at landfills for hazardous waste

17.—(1) The following criteria shall apply to granular waste to be accepted at a landfill for hazardous waste—

(a) the leaching limit values set out in Table 6; and

(b) the additional criteria set out in Table 7.

(2) Monolithic waste shall only be accepted at a landfill for hazardous waste if it meets criteria which provide the same level of environmental protection as the values in Table 6 and Table 7.

Table 6

Component	*Symbol*	*L/S = 10 l/kg*[(a)] mg/kg dry substance
Arsenic	As	25
Barium	Ba	300

(a) The Environment Agency may include conditions in a permit authorising limit values for specific parameters (other than dissolved organic carbon) up to three times higher for waste accepted in a mono-fill landfill taking into account the characteristics of the landfill and its surroundings and provided a risk assessment demonstrates that emissions (including leachate) from the landfill will present no additional risk to the environment.

(b) If the waste does not meet this value for dissolved organic carbon (DOC) at its own pH, it may alternatively be tested at L/S = 10 l/kg and a pH of between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 1,000 mg/kg.

(c) The values for TDS (Total Dissolved Solids) can be used alternatively to the values for Sulphate and Chloride.

Component	*Symbol*	*L/S = 10 l/kg*[(a)] mg/kg dry substance
Cadmium	Cd	5
Total Chromium	Cr_{total}	70
Copper	Cu	100
Mercury	Hg	2
Molybdenum	Mo	30
Nickel	Ni	40
Lead	Pb	50
Antimony	Sb	5
Selenium	Se	7
Zinc	Zn	200
Chloride	Cl	25,000
Fluoride	F	500
Sulphate	SO_4^{2-}	50,000
Dissolved Organic Carbon[(b)]	DOC	1,000
Total Dissolved Solids[(c)]	TDS	100,000

(a) The Environment Agency may include conditions in a permit authorising limit values for specific parameters (other than dissolved organic carbon) up to three times higher for waste accepted in a mono-fill landfill taking into account the characteristics of the landfill and its surroundings and provided a risk assessment demonstrates that emissions (including leachate) from the landfill will present no additional risk to the environment.

(b) If the waste does not meet this value for dissolved organic carbon (DOC) at its own pH, it may alternatively be tested at L/S = 10 l/kg and a pH of between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 1,000 mg/kg.

(c) The values for TDS (Total Dissolved Solids) can be used alternatively to the values for Sulphate and Chloride.

Table 7

Parameter	*Values*
Loss On Ignition (LOI)[(a)]	10%
Total Organic Carbon (TOC)[(b)]	6%
Acid Neutralisation Capacity (ANC)	Must be evaluated between the pH of the waste in question, at pH6 and the pH of the site leachate

(a) Either Loss on Ignition (LOI) or Total Organic Carbon (TOC) must be used

(b) If this value for TOC is not achieved, a higher limit value may be permitted by the Agency, provided that the DOC value of 1,000 mg/kg is achieved at L/S = 10 l/kg at its own pH or a pH value of between 7.5 and 8.0.

Criteria for underground storage

18.—(1) Waste may only be accepted at an underground storage site in accordance with a site specific safety assessment which complies with the provisions of Appendix A of Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of

waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC on the landfill of waste(**7**).

(2) At underground storage sites for inert waste, only waste which fulfils the criteria at paragraph 11 may be accepted.

(3) At underground storage sites for non-hazardous waste, only waste which fulfils the criteria at paragraph 12 may be accepted.

(4) At underground storage sites for hazardous waste, the criteria at paragraph 17 do not apply.

PART 4

SAMPLING AND TEST METHODS

Interpretation of Part 4

19. In this Part—

"EN 12457/1" means the standard described in the British Standard entitled "Characterisation of waste. Leaching. Compliance test for leaching of granular waste materials and sludges. One stage batch test at a liquid to solid ratio of 2 l/kg for materials with high solid content and with particle size below 4 mm (without or with size reduction)", published under the numbers BS EN 12457-1:2002 which came into effect on 15th October 2002;

"EN 12457/2" means the standard described in the British Standard entitled "Characterisation of waste. Leaching. Compliance test for leaching of granular waste materials and sludges. One stage batch test at a liquid to solid ratio of 10 l/kg for materials with particle size below 4 mm (without or with size reduction)", published under the numbers BS EN 12457-2:2002 which came into effect on 15 October 2002;

"EN 12457/3" means the standard described in the British Standard entitled "Characterisation of waste. Leaching. Compliance test for leaching of granular waste materials and sludges. Two stage batch test at a liquid to solid ratio of 2 l/kg and 8 l/kg for materials with a high solid content and with a particle size below 4 mm (without or with size reduction)", published under the numbers BS EN 12457-3:2002 which came into effect on 15th October 2002;

"EN 13137" means the standard described in the British Standard entitled "Characterisation of waste. Determination of total organic carbon (TOC) in waste, sludges and sediments", published under the numbers BS EN 13137:2001 which came into effect on 28th September 2001;

"EN 13656" means the standard described in the British Standard entitled "Characterisation of waste. Microwave assisted digestion with hydrofluoric (HF), nitric (HNO_3), and hydrochloric (HCl) acid mixture for subsequent determination of elements", published under the numbers BS EN 13656:2002 which came into effect on 22nd October 2002;

"EN 13657" means the standard described in the British Standard entitled "Characterisation of waste. Digestion for subsequent determination of aqua regia soluble portion of elements", published under the numbers BS EN 13657:2002 which came into effect on 22nd October 2002;

(**7**) OJ No. L11, 16.1.2003, p. 27.

"ENV 12506" means the standard described in the British Standard entitled "Characterisation of waste. Analysis of eluates. Determination of pH, As, Ba, Cd, Cl, Co, Cr, Cr VI, Cu, Mo, Ni, NO_2, Pb, total S, SO_4^{2-} V and Zn", published under the numbers BS EN 12506:2003 which came into effect on 11th June 2003;

"ENV 13370" means the standard described in the British Standard entitled "Characterisation of waste. Analysis of eluates. Determination of Ammonium, AOX, conductivity, Hg, phenol index, TOC, easily liberatable CN, F", published under the numbers BS EN 13370:2003 which came into effect on 11th June 2003;

"ENV 14039" means the standard described in the draft document entitled "Characterisation of waste—Determination of hydrocarbon content in the range of C10-C40 by gas chromatography", published under the numbers PrEN 14039 which came into effect on 1 December 2000;

"PrEN 14346" means the standard described in the draft document entitled "Characterisation of waste—Calculation of dry matter by determination of dry residue or water content", which came into effect on 1st February 2002;

"PrEN 14405" means the standard described in the draft document entitled "Characterisation of waste—Leaching behaviour test—Up-flow percolation test", which came into effect on 1st May 2002;

"PrEN 14429" means the standard described in the draft document entitled "Characterisation of waste—Leaching behaviour test—Influence of pH on leaching with initial acid/base addition", which came into effect on 1st June 2002; and

"PrEN 14899" means the standard described in the draft document entitled "Characterisation of waste—Sampling of waste materials: Framework for the preparation and application of a sampling plan", which came into effect on 1st May 2004.

Sampling and testing

20.—(1) All sampling and testing required by this Schedule shall be carried out in accordance with this paragraph.

(2) Subject to sub-paragraph (3), sampling and testing shall be carried out by independent and qualified persons and institutions and only laboratories which have proven experience in waste testing and analysis and an efficient quality assurance system shall be used.

(3) Sampling and testing may be carried out by producers or operators where—

(a) there is sufficient supervision by independent and qualified persons to ensure that the objectives of this Schedule are achieved; and

(b) it is carried out in accordance with an appropriate quality assurance system which includes periodic independent checking.

(4) All sampling shall be carried out using a sampling plan developed in accordance with PrEN 14899.

(5) The following standards shall be used for the sampling and testing of general waste properties—

(a) EN 13137 for the determination of TOC in waste, sludge and sediments;

(b) PrEN 14346 for the calculation of dry matter by determination of dry residue or water content.

(6) The following standards shall be used for leaching tests—

(a) PrEN 14405 for leaching behaviour and up-flow percolation tests;

(b) PrEN 14429 for leaching behaviour and influence of pH on leaching with initial acid/base addition;

(c) EN 12457/1-3 for compliance tests for leaching of granular waste materials and sludges.

(7) The following standards shall be used for the digestion of raw waste—

(a) EN 13657 for the digestion for subsequent determination of aqua regia portion of elements;

(b) EN 13656 for the microwave-assisted digestion of specified acid mixtures for subsequent determination of elements.

(8) The following standards shall be used for analyses—

(a) ENV 12506 and ENV 13370 for analysis of eluates;

(b) ENV 14039 for determination of certain hydrocarbon contents.

(9) For tests and analysis for which CEN standards are not available, the methods used must be approved by the Environment Agency.”.

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations amend the regulatory regime governing landfills in England and Wales for the purpose of implementing Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC on the landfill of waste (“the Landfill Directive”).

The Decision supplements the requirements of the Directive by specifying detailed criteria and procedures for acceptance of waste for each class of landfill. These Regulations replace the existing waste acceptance criteria and waste acceptance procedures in the Landfill (England and Wales) Regulations 2002 (“the 2002 Regulations”) with those contained in the Decision with effect from 16 July 2005. They also make some minor amendments to the 2002 Regulations and the Pollution Prevention and Control Regulations 2000.

Regulations 5 and 6 and Schedule 1 put in place the new waste acceptance criteria and procedures by amending relevant regulations of the 2002 Regulations and substituting a new Schedule 1.

Regulations 7, 8 and 9 make some minor amendments, in particular to the transitional regime. Existing landfills which are required to apply for a new permit to bring their operations into compliance with the Regulations, must close if the application is unsuccessful for some reason.

As these Regulations give effect, in part, to the Landfill Directive, a transposition note has been prepared setting out how the Government will transpose into UK law the main elements of this Directive. A regulatory impact assessment has also been prepared. Copies of both the transposition note and regulatory impact assessment are available in the libraries of both Houses of Parliament, and on the Defra website at http://www.defra.gov.uk/corporate/consult/landfill-regs/index.htm. Hard copies are available from the following address: Landfill Policy Team, Zone 7/E9, Ashdown House, 123 Victoria Street, London SW1E 6DE.

The volume entitled "Indexes to the United Kingdom Standard Industrial Classification of Economic Activities 2003", referred to in the definition of "SIC code", is available from the Stationery Office Limited on 0870 600 552.

Copies of the publications referred to in Part 4 of Schedule 1 of these Regulations may be obtained from any of the outlets operated by the British Standards Institution, or by post from the Stationery Office Limited at 123 Kingsway, London, WC2B 6PQ or by telephone on 0207 242 6410.