

Draft standard rules SR2009No19

Composting biodegradable waste

(in open and contained systems)

Introductory note

This introductory note does not form part of these standard rules

When referred to in an environmental permit, these rules will allow the operator to carry out a composting activity involving the storage, physical treatment, composting and maturation of specified biodegradable wastes. Composting can only be carried out under aerobic conditions in open or contained systems. Composting cannot be carried out under anaerobic conditions.

Permitted wastes do not include hazardous wastes. The total quantity of waste that can be in storage, physical treatment, composting or maturation at any one time under these rules may not exceed 500 tonnes. Any wastes controlled by the Animal By-Products Regulations¹ must be treated and handled in accordance with any requirements imposed by those Regulations. These rules do not permit the burning of any wastes, either in the open, inside buildings or in any form of incinerator.

The storage, physical treatment, composting and maturation of wastes must be at least 250m away from any residential property or workplace. The activities must not be within 500 metres of a European Site², Ramsar Site or Site of Special Scientific Interest (SSSI). The permitted activities must be outside groundwater Source Protection Zone 1. All activities shall not be within:

10 metres of any watercourse,

50 metres from any spring or well, or from any borehole not used to supply water for domestic or food production purposes, and

250 metres from any well, spring or borehole used to supply water for domestic or food production purposes.

These rules do not allow any polluting emissions into surface waters or groundwater.

End of Introductory Note

¹ The Animal By-Products Regulations 2005 (SI No. 2347) and the Animals By-Products (Wales) Regulations 2006 (SI No. 1293, W.127)

² A candidate or Special Area of Conservation (cSAC or SAC) and proposed or Special Protection Area (pSPA or SPA) in England and Wales.

Rules

1 – Management

1.1 General management

1.1.1 The activities shall be managed and operated:

- (a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances and closure and those drawn to the attention of the operator as a result of complaints; and
- (b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.

1.1.2 Records demonstrating compliance with rule 1.1.1 shall be maintained.

1.1.3 Any persons having duties that are or may be affected by the matters set out in these standard rules shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Accident management plan

1.2.1 The operator shall:

- (a) maintain and implement an accident management plan;
- (b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;
- (c) make any appropriate changes to the plan identified by a review.

2 – Operations

2.1 Permitted activities

2.1.1 The operator is authorised to carry out the activities specified in table 2.1 below ("the activities").

Table 2.1 activities	
Description of activities	Limits of activities
R13: Storage of wastes pending the operation numbered R3 .	Secure storage of wastes listed in table 2.3A and 2.3B at the place where they are to be used in the composting operations authorised under these rules.
R3: Recycling/reclamation of organic substances which are not used as solvents	Physical treatment, composting and maturation of the types of waste listed in table 2.3A or 2.3B. The total quantities of wastes in storage; and undergoing treatment, composting and maturation shall not exceed 500 tonnes at any one time.

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan attached to the permit.

2.2.2 The activities shall not be carried out within:

- (a) 250 metres of a residential property or workplace;
- (b) 500 metres of a European Site, Ramsar site or Site of Special Scientific Interest (SSSI);
- (c) Groundwater Source Protection Zone 1;
- (d) 10 metres of any watercourse;
- (e) 50 metres of any spring or well, or any borehole not used to supply water for domestic or food production purposes;
- (f) 250 metres of any well, spring or borehole used to supply water for domestic or food production purposes.

2.3 Waste acceptance

2.3.1 Waste shall only be accepted if:

- (a) it is of a type in tables, 2.3A or 2.3B of these rules;
- (b) the total quantity of waste at the site at any one time does not exceed 500 tonnes ; and
- (c) it conforms to the description in the documentation supplied by the producer and holder.

2.3.2 Records demonstrating compliance with rule 2.3.1 shall be maintained.

Table 2.3A Waste types - open systems only

Exclusions	
<ul style="list-style-type: none"> • Wastes having any of the following characteristics shall not be accepted: • Consisting solely or mainly of dusts, powders or loose fibres; • Wastes containing animal by products covered by the Animal By-Products Regulations 2005 (SI No. 2347) and/ or the Animals By-Products (Wales) Regulations 2006 (SI No. 1293, W.127); • Wastes that are in a form which is liquid. 	
Waste Code	Description
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	plant-tissue waste
02 01 06	horse manure, farmyard manure and biodegradable bedding
02 01 07	wastes from forestry
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 99	spent mushroom compost
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARBOARD
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood or particle board (where it does not contain veneers, other coatings or preserving substances)
03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 10	fibre rejects not containing any hazardous substances.
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FLITER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging (where no non-biodegradable coating or preserving substance present)
15 01 03	wooden packaging (where, no hazardous, non-biodegradable coating or preserving substance present)
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 02	wood, glass and plastic
17 02 01	wood (where no hazardous, non-biodegradable coating or preserving substance present)
17 05	soils (excluding excavated soils from contaminated sites), stones and dredging spoil
17 05 06	dewatered dredging spoil and plant tissue waste from inland waters, not containing Japanese Knotweed.
19	WASTE FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 05	wastes from the aerobic treatment of solid wastes
19 05 03	off-specification compost (only from a process operated according to PAS 100 and QP requirements or another approved standard)

20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	separately collected fractions
20 01 01	paper and cardboard (where no non-biodegradable coating or preserving substance present)
20 01 38	wood other than that mentioned in 20 01 37 (where no non-biodegradable coating or preserving substance present)
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste plant matter

Table 2.3B. Waste types – contained systems only

Exclusions

Wastes having any of the following characteristics shall not be accepted:

- Consisting solely or mainly of dusts, powders or loose fibres or other liquid wastes not otherwise specified.

Waste Code	Description
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 02	animal tissue waste
02 01 03	plant tissue waste
02 01 06	horse manure, farmyard manure and bedding
02 01 07	wastes from forestry
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 02	animal tissue waste (excluding animal blood)
02 02 03	shells from shellfish processing (where all the flesh has been removed)
02 02 09	horse manure, farmyard manure and bedding
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 04	biodegradable materials unsuitable for consumption or processing (only if no chemical agents added and no toxin residues)
02 06	wastes from the baking and confectionery industry
02 06 01	biodegradable materials unsuitable for consumption or processing (other than those containing dangerous substances)
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	spent grains or hops.
02 07 02	whisky filter sheets or cloths.
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARBOARD
03 01	wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood or particle board (where does not contain veneers, other coatings or preserving substances)
03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 10	fibre rejects (not containing hazardous substances)

15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	waste packaging, absorbents, filter materials, wiping cloths and protective clothing
15 01 01	paper and cardboard packaging (where no non-biodegradable coating or preserving substance present)
15 01 03	wooden packaging (where no non-biodegradable coating or preserving substance present)
15 01 09	textile packaging (only entirely natural fibres)
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 02	wood from construction and demolition wastes
17 02 01	wood (where no non-biodegradable coating or preserving substance present)
17 05	soil (excluding excavated soil from contaminated sites), stones and dredging spoil
17 05 06	dredging spoil and plant tissue waste from inland waters not containing Japanese Knotweed
19	WASTE FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 05	wastes from the aerobic treatment of solid wastes
19 05 03	off-specification compost (only from a process operated according to PAS 100 QP requirements or another approved standard)
19 06	waste from anaerobic treatment of waste
19 06 04	digestate from anaerobic treatment of source segregated biodegradable waste (only if derived from input types permitted by this permit)
19 06 06	digestate from anaerobic treatment of animal and vegetable waste (only if derived from input types permitted by this permit)
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01 01	paper and cardboard (where no non-biodegradable coating or preserving substance present)
20 01 08	biodegradable kitchen and canteen waste
20 01 38	wood other than that mentioned in 20 01 37 (where no non-biodegradable coating or preserving substance present)
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 03	other municipal wastes
20 03 02	biodegradable wastes from markets

3 – Emissions and monitoring

3.1 Fugitive emissions of substances

- 3.1.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in Table 3.1 below and any approved fugitive emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

Table 3.1 Appropriate measures for fugitive emissions

Measures

Table 2.3A wastes

1. The storage, physical treatment, composting and maturation of wastes listed in Table 2.3A shall take place on hard standing subject to paragraph 2 below.
2. When located within Groundwater Source Protection Zone 2 the storage, physical treatment, composting and maturation of wastes listed in Table 2.3A shall take place only on an impermeable surface with sealed drainage system.

Table 2.3B wastes

3. The storage, physical treatment, composting and maturation of wastes listed in Table 2.3B shall take place only in a contained system on an impermeable surface.
4. Where the composting or maturation of wastes takes place in any form of enclosed reactor vessel, it shall be fitted with a bio-filter. The bio-filter must be specifically designed and maintained for the process undertaken and be fit for purpose

3.1.2 The operator shall:

- (a) if notified by the Agency that the activities are giving rise to pollution, submit to the Agency for approval within the period specified, a fugitive emissions management plan;
- (b) implement the approved fugitive emissions management plan, from the date of approval, unless otherwise agreed in writing by the Agency.

3.1.3 All liquids, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise leakage and spillage from the primary container.

3.2 Odour

3.2.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in Table 3.2 below and in any approved odour management plan, to prevent or where that is not practicable, to minimise, the odour.

3.2.2 The operator shall:

- (a) if notified by the Agency that the activities are giving rise to annoyance outside the site due to odour, submit to the Agency for approval within the specified period, an odour management plan.
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Agency.

Table 3.2 Appropriate measures for odour emissions

Measures

- Non-odorous wastes shall be processed within 1 month of receipt on site
- Potentially odorous wastes shall be processed within 48 hours of receipt on site

3.3 Noise and vibration

3.3.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution

outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any noise and vibration management plan, to prevent or where that is not practicable, to minimise, the noise and vibration.

3.3.2 The operator shall:

- (a) if notified by the Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Agency for approval within the period specified, a noise and vibration management plan;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Agency.

3.4 Monitoring

3.4.1 The operator shall, unless otherwise agreed in writing with the Agency, undertake monitoring for the parameters specified in table 3.4 below.

3.4.2 The operator shall maintain records of all monitoring required by these standard rules including records of the taking and analysis of samples, instrument measurements (periodic and continual, calibrations, examinations, tests and surveys and any assessment and evaluation made on the basis of such data.

3.4.3 All waste should be monitored to ensure it is sanitised and stabilised as per industry guidance and shall be fit for purpose.

Table 3.4 Activities – Monitoring requirements		
Monitoring point	Parameter	Other specifications
Internal for each windrow and for any sample of waste or compost	Temperature	Monitoring equipment shall be available on-site and used as required to ensure compliance with these standard rules. Monitoring will be carried out to ensure aerobic conditions are maintained and to prevent waste becoming anaerobic.
	Moisture	
Internal for each enclosed composting vessel	Temperature	
	Moisture	

4 – Information

4.1 Records

4.1.1 All records required to be made by these standard rules shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible or are capable of retrieval; and
- (d) be retained, unless otherwise agreed by the Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of land and groundwater

4.1.2 All records, plans and the management system required to be maintained by these standard rules shall be held on the site, where practicable or other location agreed in writing and controlled by the

operator.

- 4.1.3 All material unless accredited by an approved third party scheme will be removed, spread or deposited at an authorised site.

4.2 Reporting

- 4.2.1 All reports and notifications required by these standard rules shall be sent to the Agency using the contact details supplied in writing by the Agency.
- 4.2.2 Within one month of the end of each quarter the operator shall submit to the Agency using the form made available for the purpose, the information specified on the form relating to the site and waste accepted and removed from it during the previous quarter.

4.3 Notifications

- 4.3.1 The Agency shall be notified without delay following the detection of:
- (a) any malfunction, breakdown or failure of equipment or techniques, accident or fugitive emission which has caused, is causing or may cause significant pollution;
 - (b) the breach of a limit specified in these standard rules; or
 - (c) any significant adverse environmental effects.
- 4.3.2 Written confirmation of actual or potential pollution incidents and breaches of emission limits shall be submitted within 24 hours.
- 4.3.3 Where the Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Agency when the relevant monitoring is to take place. The operator shall provide this information to the Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Agency shall be notified within 14 days of the occurrence of the following matters except where such disclosure is prohibited by Stock Exchange rules:
- a) Where the operator is a registered company:
 - any change in the operator's trading name, registered name or registered office address;
 - any change to particulars of the operator's ultimate holding company (including details of an ultimate holding company where an operator has become a subsidiary); and
 - any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
 - b) Where the operator is a corporate body other than a registered company:
 - any change in the operator's name or address; and
 - any steps taken with a view to the dissolution of the operator.
 - c) In any other case:
 - the death of any of the named operators (where the operator consists of more than one named individual); and
 - any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case them being in a partnership, dissolving the partnership.

4.4 Interpretation

- 4.4.1 In these standard rules the expressions listed below shall have the meaning given.

4.4.2 In these standard rules references to reports and notifications mean written reports and notifications, except when reference is being made to notification being made “without delay”, in which case it may be provided by telephone.

“*accident*” means an accident that may result in pollution.

“*aerobic*” means in the presence of oxygen

“*anaerobic*” means in the absence of oxygen

“*authorised officer*” means any person authorised by the Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in Section 108(4) of that Act.

“*bio-filter*” an actively managed and monitored organic, microbially active substrate (medium) which is rich in carbon and low in nitrogen on which micro-organisms will grow. Allowing odours and VOC to be filtered through the action of micro - organisms that grow on the substrate.

“*compost*” means a solid particulate material that is the result of composting, which has been *sanitised* and *stabilised*, and which confers beneficial effects when added to soil, used as a component of growing media or used in another way in conjunction with plants.

“*composting*” means the biological decomposition of organic materials, under conditions that are predominantly aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat.

“*contained system*” means any type of enclosed reactor vessel, designed to contain its contents and comply with the standards laid down in the Animal By-Products Regulations.

“*emissions to land*”, include emissions to groundwater.

“*enclosed reactor vessel*” an enclosed system in which waste is fully contained, with an impermeable surface, and where efficient air management odour abatement systems are demonstrated. This may cover a wide range of technology, and where necessary is in compliance with ABPR.

“*European Site*” means candidate or Special Area of Conservation (cSAC or SAC) and proposed or Special Protection Area (pSPA or SPA) in England and Wales, within the meaning of Council Directives 79/409/EEC on the conservation of wild birds and 92/43/EEC on the conservation of natural habitats and of wild flora and fauna under The Conservation (Natural Habitats & c.) Regulations 1994. Internationally designated Ramsar sites are dealt with in the same way as European Sites as a matter of government policy and for the purpose of these rules will be considered as a European Site.

“*fugitive emission*” means an emission to air, water or land from the activities which is not controlled by an emission limit.

“*groundwater*” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“*groundwater Source Protection Zone*” has the meaning given in the document titled “Groundwater Protection: Policy and Practice” published by the Agency in 2006.

“*impermeable surface*” means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface, and should be read in conjunction with the term “sealed drainage system” (below).

“*maturation*” a stage when by agitating and turning the compost it no longer results in reheating and the monitored temperature falls to ambient without the compost being too dry or anaerobic.

“*open system*” means composting in windrows and includes other technologies such as aerated static piles

“*pollution*” means emissions as a result of human activity which may—

- (a) be harmful to human health or the quality of the environment,
- (b) cause offence to a human sense,
- (c) result in damage to material property, or
- (d) impair or interfere with amenities and other legitimate uses of the environment.

“*quarter*” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“*R*” means a recovery operation provided for in Annex IIB to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste.

“*sealed drainage system*” in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

- (a) no liquid will run-off the surface otherwise than via the system;

(b) except where they may lawfully be discharged, all liquids entering the system are collected in a sealed sump.

"*site*" means the location where waste storage and treatment activities can take place.

"*SSSI*" means Site of Special Scientific Interest within the meaning of the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000).

"*waste code*" means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

"*year*" means calendar year commencing on 1st January.

End of standard rules