

The regulation of materials being considered for development of an end of waste Quality Protocol

Purpose of this position statement

This position statement advises our staff and customers on how we intend to regulate wastes being considered for development of an end of waste Quality Protocol by the Waste Protocols Project¹ and the LIFE+ funded, European Pathway to Zero Waste Project (EP0W).

The statement sets out our regulatory position for the interim period between when a material is accepted for inclusion in these projects and a decision being made by the Environment Agency. If a Quality Protocol is developed this statement also covers our regulatory position whilst the draft Quality Protocol is considered by the European Commission.²

It should be noted that this position relates only to permitting the final use of waste. If you carry out any treatment of the waste prior to the final use you will still need a permit for that activity.

You will also need to obtain an environmental permit if you are carrying out other operations or activities. For example, you will still need to obtain an environmental permit if your activity involves a water discharge activity or a groundwater activity and we will consider appropriate enforcement action if such a permit is not held.

Background

We are working with industry to provide clarity on the regulatory status of a number of waste streams and their suitability for use in specified markets. The current waste streams being considered are listed in Annex 1 and 2. This will lead to the production of:

- a Quality Protocol: this identifies the point at which waste, having been fully recovered, may be regarded as a non-waste product that can either be used by business or industry, or supplied into other markets without the need for waste management controls; or
- a position statement: this sets out for the business community the legal obligations they must comply with to use the treated waste material.

Project outputs

Quality Protocols have been produced for a range of products derived from:

¹ The waste protocols project is a joint initiative between the Environment Agency, WRAP (Waste & Resources Action Programme) Welsh Assembly Government (WAG) and Northern Ireland Environment Agency (NIEA)

² Member States are obliged to consult the Commission on proposed technical regulations under the Technical Standards and Regulations Directive 98/34/EC. This involves a three to six-month standstill period before the Quality Protocol can be published as final document.

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- Source segregated biodegradable waste
- Non packaging plastic
- Flat glass
- Waste plasterboard
- Cooking oil and tallow
- Waste lubricating oil
- Waste tyres
- Pulverised fuel ash (PFA) and furnace bottom ash (FBA) (bound and grout applications)

In addition, we've published position statements on wood waste, blast furnace slag (BFS), contaminated soils and marine sediments from capital and maintenance dredging. The latest regulatory guidance for all materials considered can be obtained from the [Waste Protocols Project](#) and [European Pathway to Zero Waste](#) sections of our website.

Current guidance on uncontaminated topsoil (both manufactured and naturally occurring) is provided by [The Definition of waste: Development Industry Code of Practice](#), which states our position in relation to the CL:AIRE Definition of Waste: Development Industry Code of Practice. This document is available from the Construction sector page in the Business & Industry section of our [website](#).

Our position

While our work is in progress, our position is that the waste streams listed in Annex 1 and Annex 2 **remain waste** until it has been put to its final use. The exception to this would be if a producer has demonstrated to us that the waste has been completely recovered on a case-by-case basis having regard to the aims of the Waste Framework Directive and the need to ensure that its effectiveness is not undermined.

During the process of determining whether a Quality Protocol can be produced, we recognise that in certain cases it may not be appropriate to take enforcement action if an operator does not obtain an environmental permit for that final use.

Materials listed in Annex 1

This position applies only to wastes in Annex 1 where the waste has been processed **and**:

1. The holder can demonstrate that the processed material can meet one of the relevant standards listed in Annex 1³; **and**
2. It is being used in one of the final uses specified for that waste type in accordance with any conditions specified in Annex 1.

³ Any documentation should be retained for 2 years and be made available to our officers if requested

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We will adopt the following approach for wastes listed and used for one of the final uses specified for that waste type in Annex 1:

- An operator carrying out an interim process⁴ will need an environmental permit or exemption from permitting for that activity.
- If your activity involves one of the final uses of the processed waste and you already have an environmental permit for that activity, you should continue to comply with the conditions of that permit.
- If the listed final use of the processed waste is covered by an exemption from the need for an environmental permit, you should register the activity as exempt and comply with the conditions of that exemption.
- If you require a permit for the listed final use of the processed waste but you do not yet have one, we will not normally require you to have a permit for that waste operation provided:⁵
 - the waste is **not mixed** with other wastes;
 - the waste is only mixed with non-wastes that improves its use or application;
 - the activity is carried out in such a way that it does not, or is unlikely to, cause nuisance or harm to human health or the environment.
- Activities that result in the disposal of the waste stream remain subject to normal regulation and are not covered by this position statement.
- Even where we do not require a permit for a waste operation, you must comply with all other appropriate waste management controls such as duty of care and carrier registration. In addition, any controls that do not depend on the status of the material as a waste will still apply. These include permitting requirements for other activities such as water discharge activities and groundwater activities.
- Secure storage of the processed material at the place of final use will not require a permit / exemption as long as appropriate best practice is followed to ensure it does not cause a nuisance or harm to human health or the environment. Storage at any other place, such as an interim storage facility, will require a permit or an exemption from permitting unless provision is made for interim storage in Annex 1 and the conditions and limitations stated are complied with.

⁴ An interim process is the activity where the wastes are processed to the point that they meet the relevant standard listed in Annex 1 for that activity.

⁵ See also the section on enforcement overleaf.

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If the listed waste:

- is not processed for one of the appropriate final uses listed in Annex 1; or
- is processed for one of the final uses but not in accordance with the relevant standards; or
- is not used in accordance with any conditions of use; or
- is not securely stored in accordance with appropriate best practice; or
- where interim storage is provided for, is not stored in accordance with any conditions stated;

the person using and/or storing the waste **must** obtain the appropriate permit or exemption for the waste operation and ensure that other appropriate waste management and other applicable controls are complied with.

If any of the wastes under consideration are processed in line with Annex 1 but are mixed with other wastes, they will not benefit from this regulatory position statement. The normal waste permitting, or other waste management and applicable controls, will apply.

If we conclude that a Quality Protocol cannot be developed for a particular material or that a material should not be used in a particular way without waste management controls:

- this position will cease to apply to that waste stream or activity; and?
- the material must be used in line with the appropriate permit or exemption, and other relevant waste management and applicable controls.

This interim position statement will normally continue to apply while the use of the specified waste stream (listed in Annex 1) is under consideration for a Quality Protocol. However, if we acquire information during that consideration which leads us to consider this is not appropriate we may amend or withdraw this position for any particular material. It is the producer's responsibility to ensure they refer to the most up-to-date version of this interim position statement to ensure that their activity remains included and that they are complying with any conditions.

If the waste type is no longer covered by this interim position statement, we will issue a position statement to outline what steps industry needs to take to comply with the relevant legislation. This will be available from the [Waste Protocols Project](#) section of our website.

Enforcement

If the activity is likely to cause pollution or harm to human health, or there is a breach of waste management or other controls we regulate, we will take action in line with our Enforcement and Sanctions Statement.

Materials listed in Annex 2

The materials listed in Annex 2 are ones to which the above position does not apply. In Annex 2 we state what the current position for those materials is.

As work progresses on the waste streams in Annex 2 we will keep under review whether the position for these waste should be altered. It is the producer's responsibility to ensure they refer to the most up-to-date version of this interim position statement.

Further advice

Further advice on the Waste Protocols Project and on Quality Protocols being produced by the European Pathway to Zero Waste project can be obtained from the [Waste Protocols Project](#) section of our website. Detailed guidance on regulatory controls can be obtained from our National Customer Contact Centre on 08708 506 506, from our [website](#) or from the [NetRegs website](#).

We review this regulatory position statement regularly. It is the responsibility of the user to ensure they are referring to the most up-to-date version. This is available from our [website](#).

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Annex 1: Waste streams currently under consideration by the Waste Protocols Project

- 1 [Incinerator bottom ash \(IBA\)](#)
- 2 [Paper sludge ash \(PSA\)](#)
- 3 [Pulverised fuel ash \(PFA\) and furnace bottom ash \(FBA\) \(unbound applications\)](#)
- 4 [Steel slag](#)
- 5 [Cathode ray tube \(CRT\) glass](#)
- 6 [Biomethane produced from the anaerobic digestion of waste](#)
- 7 [Meat and bone meal ash](#)
- 8 [Treated ash from the incineration of poultry litter, feathers and straw](#)

1. Incinerator bottom ash (IBA)

Final use

Processed for use in:

- unbound applications, e.g. slope stabilisation, replacement aggregates in culverts, bridge abutments and as fill beneath ground-bearing slabs, sub-base and capping layers;
- bound highway applications, e.g. construction and maintenance of roads/ public rights of way/ bituminous bound material and sub-base or capping layer;
- construction applications such as blocks or cement bound material or foamed asphalt/ concrete.

Relevant standards

Processed material must conform to relevant publicly available civil engineering standards.

2. Paper sludge ash (PSA)

Final use

Processed for use:

- as a liming agent for application to agricultural land;
- as a desiccant for animal bedding;
- as a sewage sludge stabiliser;
- in block manufacture;
- in cement manufacture.

Relevant standards

If used for civil engineering application, the processed material must conform to relevant publicly available civil engineering standards.

Where used in agriculture the processed material must conform to:

- UK Fertiliser Regulations 1991 (as amended) SI 1991 No. 2197.

Conditions of use

- *Compliance with Code of good agricultural practice to protect water, soil and air quality for farmers, growers and land managers (CoGAP) – available from the Defra [website](#).*

3. Pulverised fuel ash (PFA) and furnace bottom ash (FBA) (unbound applications)

Final use

Processed for use in:

- unbound applications, e.g. fill material for embankments, and raising levels for construction sites.

Relevant standards

The processed material must conform to the following relevant publicly available civil engineering standard: BS EN 13242: 2002 Aggregates for unbound and hydraulically bound materials for use in civil engineering work and road construction; or if specified by a customer, the Specification for Highway Works Series 600.

4. Steel slag

Final use

The use of processed basic oxygen steelmaking (BOS) slag, electric arc furnace (EAF) slag and argon oxidation decarburisation (AOD) slag in:

- civil engineering road applications including bitumen-bound capping layers, hydraulically bound mixtures for sub-base and base, unbound mixtures for sub-base and base, chippings for surface dressing, other public rights of way, replacement aggregate, slope stabilisation and culvert drainage beds;
- civil engineering non-road applications including landfill engineering, slope stabilisation, embankment development, structural fill and back-fill, replacement aggregate in culverts, drainage channels and bridge abutments;
- fertiliser in agriculture (BOS slag only);
- other engineering applications including sea defence and land reclamation (rock armour), railway track ballast and constituent in slag bound mixture, e.g. for canal and river towpath applications.

Relevant standards

- If used for civil engineering application the processed material must conform to relevant publicly available civil engineering standards.

Conditions of use

When used as fertiliser in agriculture (BOS slag only);

- UK Fertiliser Regulations 1991 (as amended) SI 1991 No. 2197.

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- *Code of good agricultural practice to protect water, soil and air quality for farmers, growers and land managers (CoGAP)* – available from the Defra [website](#).

For all other uses

- *Code of practice for owners of sites and contractors using unbound air cooled blast furnace and steel slag for compliance with the Groundwater Regulations 1998* – produced by the Quarry Products Association (now part of the Mineral Products Association).

5. CRT glass from television, computer monitors and other display equipment

Final use

- bound aggregate applications e.g. bricks, tiles, foam glass;
- unbound aggregate applications;
- fibreglass; and
- x-ray shielding.

Relevant standards

For all uses

The use of crushed waste glass that has come from cathode ray tubes (CRTs) which have been treated in accordance with Best Available Treatment Recovery and Recycling Techniques (BATRRRT) as required by the Waste Electronic and Electrical Equipment (WEEE) Directive at a suitably permitted facility where the lead oxide content is less than 0.65 per cent.

Additionally

- If used for civil engineering application the processed material must also conform to relevant publicly available civil engineering standards.
- If used in fibreglass or x-ray shielding the processed material must also meet a customer specification

6. Biomethane produced from the anaerobic digestion of waste

Final use

- Biomethane for injection into the gas network
- Biomethane for use as a transport fuel

Relevant Standards

Biomethane produced for injection into the gas grid network and which is subject to and complies with the specification in a local gas grid Network Entry Agreement⁶ must meet the following additional compositional requirements set out in the table below.

⁶ *Network Entry Agreement (NEA)*: A Network Entry Agreement sets out the technical and operational conditions for the connection, and is required under the Uniform Network Code (UNC).

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Parameter	Limit
Total halogens, expressed as chlorine	1.5 mg/m ³
Arsenic, antimony, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, thallium, vanadium, zinc	Below limits of detection to achieve the following performance criteria : <ol style="list-style-type: none"> 1. Limit of quantitation⁷ - 1ppm for any individual metal. 2. Precision of 10% 3. Maximum bias of 10%. [UKAS accredited laboratory using an appropriate validated methodology]

Biomethane compressed and used as a substitute for compressed natural gas as a **transport fuel**, must meet the minimum standards set out below.

Parameter	Limit
Methane	Greater than 90%
Total Sulphur (including hydrogen sulphide)	23 mg/m ³
Total halogens, expressed as chlorine	1.5 mg/m ³
Arsenic, antimony, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, thallium, vanadium, zinc	Below limits of detection to achieve the following performance criteria : <ol style="list-style-type: none"> 1. Limit of quantitation⁶ - 1ppm for any individual metal. 2. Precision of 10% 3. Maximum bias of 10%. [UKAS accredited laboratory using an appropriate validated methodology]
Siloxanes	1 mg/m ³

In both cases, producers must ensure that suitable and sufficient tests are carried out to evidence that the specified gas quality requirements are complied at all times. A record of the test should be kept to evidence conformance with the required standard in the event of dispute.

It includes a gas quality specification which must meet the minimum standards set out in Schedule 3 (The Contents and Characteristics of Gas) of the Gas Safety Management Regulations 1996. Operators are required to implement the latest version of the Gas Safety Management Regulations when revised.

⁷ Stated multiple of the limit of detection, for example two or three times the limit of detection, at a concentration of the determinand that can reasonably be determined with an acceptable level of accuracy and precision. NOTE: Limit of quantitation can be calculated using an appropriate standard or sample, and may be obtained from the lowest calibration point on the calibration curve (excluding the blank).

7. Meat and bone meal ash.Final Use

The use of treated ash from the incineration and combustion of meat and bone meal from a permitted incinerator/combustion plant as a fertiliser on agricultural land.

Relevant Standards

The treated ash must comply with the following standards:

- The ash must have a dioxin content of less than 20 ng/kg WHO-TEQ in any one load and the treatment process ensures an average dioxin content of less than 10 ng/kg WHO-TEQ;
- The ash must have a total organic carbon content of less than 3% or their loss on ignition is less than 5% of the dry weight of the matter;

Condition of use

The spreading of the ash is undertaken in accordance with the code of good agricultural practice to protect water, soil and air quality for farmers, growers and land managers (CoGAP) available from the DEFRA website. Ash from power stations, combustion plants and incinerators using ABP feedstocks must not be spread on grazing land.

Interim storage

The secure storage in a building of up to 1,000 tonnes at any site other than the site of production pending transport to agricultural land for recovery;

8. Treated ash from the incineration of poultry litter, feathers and straw:Final use

The spreading on land as a fertiliser

Relevant standard

The treated ash has a dioxin content of less than 20ng/kg WHO-TEQ in any one load and the treatment ensures an average dioxin content of less than 10 ng/kg WHO-TEQ.

Condition of use

Spreading should be undertaken in accordance with the Code of good agricultural practice to protect water, soil and air quality for farmers, growers and land managers (CoGAP) – available from the Defra website

Interim storage

The secure storage in a building of up to 3000 tonnes at a dockside or 1000 tonnes elsewhere of treated poultry litter ash pending transport to agricultural land for recovery. This position applies to both imported ash and ash produced in the UK.



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Annex 2: Other waste streams being considered by the Project

1	Non-virgin wood from post-industrial and post-consumer sources
2	Compressed tyre bales

1. Non-virgin wood from post-industrial and post-consumer sources

This will continue to be regulated in line with the [position statement on the environmental regulation of wood](#).

2. Compressed tyre bales

The low risk position that related to tyre bales was withdrawn on 6 April 2010 and replaced in May 2011 with [RPS 085 Use of PAS 108 tyre bales](#).

For civil engineering projects and permitted landfill infrastructure works involving PAS 108 tyre bales, we will support a local enforcement decision to not pursue an application for an environmental permit in relation to the waste operation for the use and associated storage of tyre bales. This will apply where the proposed use has been notified to us and we are satisfied that the requirements set out below will be met.