

INFORMATION NOTE FROM THE DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS

EU END OF WASTE CRITERIA FOR BIOWASTE

Who is this note for?

This note is for anyone interested in the treatment of organic wastes and the use of products derived from organic wastes. This includes people: -

- in the waste sector involved in composting and anaerobic digestion and also technologies such as mechanical biological treatment (MBT)
- in the water industry dealing with the treatment of sewage sludge.
- who have an interest in the commercial use of products like compost – such as farmers, farming organisations, farm assurance schemes and retailers.

What is it about?

This Information Note sets out the current position on the development of EU end of waste criteria for biowaste. If adopted, these EU criteria will determine when a product like compost or the digestate produced by anaerobic digestion plants is of a high enough quality to be no longer considered waste. There are still many uncertainties about both the content and timing of such criteria, but this note contains the Department's best estimate of how the criteria may be developed.

Current UK standards

The UK has developed Quality Protocols – for compost and for the digestate produced by anaerobic digestion – which currently define end of waste in England and Wales. The Protocols have three purposes:

- (i) To clarify the point where waste management controls are no longer required;
- (ii) To provide users with the confidence that the compost or digestate they buy conforms to an approved standard; and
- (iii) To protect human health and the environment by describing acceptable good practice for the different end uses of the compost and digestate.

For (ii) the approved specifications referenced in the Quality Protocols are PAS 100 for compost and PAS 110 for digestate. These standards are also applied in Scotland but through guidance from the Scottish Government rather than through the Quality Protocols. In Scotland, end of waste is defined by the Scottish

Environment Protection Agency at the point where the material meets the PAS 100 or PAS110.

Progress to date

The European Commission has asked its Joint Research Centre (JRC) to develop proposals for end of waste criteria for biowaste.

As explained below, the Commission's intention seems to be that the only organic wastes that will qualify for end of waste status are biodegradable wastes from source-segregated collections.

The JRC held two meetings with technical experts from Member States in 2011. At the second of these, in October 2011, the JRC presented proposals for end of waste criteria. These are not formal proposals from the European Commission but we are working on the assumption that the final proposal from the Commission will be based on that produced by JRC. The Commission's formal proposal will be subject to further amendment during negotiations between Member States and the Commission.

You should not assume that the JRC proposals will be implemented in their current form; past experience suggests that this is very unlikely. It is even possible that Member States will not be able to agree any end of waste criteria for biowaste. However, should such criteria be adopted, it is important they reflect UK concerns, provide high quality materials accepted by the market, and are not overly burdensome on industry. Defra, the Environment Agency and WRAP are working with stakeholders to ensure that those concerns are taken into account in EU negotiations.

We would draw the following points to your attention:-

- The EU proposal is likely to be limited to source-segregated inputs.
- The proposal specifically excludes sewage sludge or residual ("black bag") wastes that are then subject to processes such as mechanical/biological treatment (MBT) or mechanical heat treatment (MHT).
- It is possible – under Article 6 of the Waste Framework Directive - for Member States to adopt their own end of waste standards if criteria have not been set at an EU-wide level. However, our current understanding is that the Commission may try to limit the eligibility of biowastes for end of waste status to food and garden waste from source-segregated collections.¹

¹ The extent to which sewage sludge is included within the scope of the revised Waste Framework Directive will be clarified in separate Defra guidance.

- The EU standard would define end of waste but the UK markets could also adopt higher standards if markets require higher quality material than the EU criteria specify, provided those higher standards do not try to function within the Member State as the legal line between ‘waste’ and ‘product’.
- There is a need for any EU proposal to put forward a consistent sampling regime to ensure that any criteria are consistently applied across the EU. At present the proposals do not provide much information about sampling requirements. Similarly it is essential that the proposals put forward are workable, verifiable and accredited methods. We do not believe that the current proposal does this adequately.
- The UK is unique in the EU in having developed end of waste criteria for compost and digestate. This means that we have valuable experience to help the EU develop its criteria. However, it also means that we will need adequate time for an orderly transition between the UK and EU criteria. This will be especially important if the EU criteria is significantly different to ours.
- Unlike the UK Quality Protocols, the Commission’s proposals do not specify the uses to which end of waste compost and digestate may be applied.

The JRC proposals cover both digestate and compost – although the implications are a little different. These are set out below.

Compost

The EU proposals are similar to those in PAS 100. The main differences are set out in Table 1 :-

Table 1: Key differences between EU proposals for end of waste for compost and current UK specification (Quality Protocol incorporating PAS 100)

Parameter	Unit	PAS 100	EU proposals
Lead	mg / kg dry	200	120
Copper	matter	200	100
Germinating weeds seeds or propagule regrowth	Mean number / litre of compost	0	2 viable weed seeds per litre
Physical contaminants - Total glass, metal, plastic >2mm	% mass / mass of “air dry” sample	0.25, of which 0.12 is plastic	0.5%
Stability	Mg CO ₂ / g organic matter / day	16	15 mmol O ₂ / kg organic matter / hr

There is no plant response test in proposed EU requirements for product testing. Instead this is left to the list which describes information that must be supplied to an end user – i.e. no limit is described for assessing whether compost has passed or failed the plant response test. In addition, a draft CEN test procedure has been proposed which is different from the test procedure we currently use. The UK believes that a plant response test is important for determining some environmental effects and is also vital for building confidence in the market for such products.

Digestate

There are more issues with the Commission proposals for digestate than with those for compost. These include some of the same issues that apply to compost e.g. the permitted level of copper and lead and a requirement for plant response testing. However, other issues for digestate include :-

Minimum organic matter content of 15%. This would be a new requirement.

- A limit on the amount of organic acids (1500mg per litre) in fully processed digestate. The proposal is a test of the stability of the digestate. PAS 110 currently specifies a different test – a residual biogas potential test and limit. It also specifies a volatile fatty acids test with a threshold above which a digestate sample would definitely fail the residual biogas potential test.

This is one area where the Commission proposals seem to be based on digestate from crop-based AD plants rather than food waste ones. Defra believes that proposals for end of waste standards should allow sufficient flexibility and encompass food waste-fed plants as well as the purpose grown crop based systems that are common in Germany. This approach will ensure that the proposals are practicable here in the UK.

Timetable

Following the technical meeting in October 2011, the JRC asked for further information from Member States and stakeholders, particularly in respect of digestate. Defra and WRAP - with support from the Association for Organic Recycling and UK trade associations, and in consultation with the EA and Devolved Administrations – provided further input from the UK to the JRC in January 2012. Defra and WRAP will continue to work with stakeholders in order to produce an economic and environmental assessment of the EU proposals during the first half of 2012.

The timetable for the introduction of any EU end of waste criteria is still unclear and will depend on a number of variables. First when the European Commission will make its formal proposals, secondly the length of the negotiation between

the Commission and Member States (and possibly the European Parliament), and thirdly the length of any transition period.

The UK will be arguing for a significant transition period to enable those operators who are certified under the two existing UK standards (Quality Protocols incorporating PAS 100 and PAS 110) time to adapt. A transition period will also be needed for the UK’s certification scheme owners and contracted certification bodies to realign their audits to checking operator compliance with the EU EoW criteria. If those schemes and certifiers are also required to be accredited (e.g. by the United Kingdom Accreditation Service) for their certification services aligned to EU EoW criteria, a longer transition time will be needed.

Given the uncertainties mentioned above it is not possible at this stage to set out a firm timetable for when the end of waste criteria will come into force. Table 2 below sets out our current best estimates of both the EU process and timetable, but clearly this is only indicative and is likely to change.

Table 2: Indicative Timetable for adoption of EU end of Waste Criteria for Biowaste

Action	Date
Report from the Joint Research Centre with recommendations on end of waste criteria for biowaste	March 2012
European Commission issues formal legislative proposal	May/June 2012
First formal discussion between Commission and Member States on the proposal in Technical Adaption Committee	September 2012
Second formal discussion and agreement on criteria	End of 2012 or early 2013
Adoption by Council and publication of Regulation	Early 2013
End of waste criteria comes into force	Late 2013

(It is possible – if Member States cannot agree – that European Parliament approval would also be required. This would further delay the timetable.)

Format of the end of waste criteria

We assume that end of waste criteria for biowaste will follow a similar format to the criteria adopted for other materials. The EU has already adopted end of waste criteria for scrap metal.² The scrap metal Regulation has three main parts:

- the criteria themselves are set out in annexes to the Regulation;
- provisions for producers of end of waste scrap metal to issue a statement of conformity; and
- quality management systems which must be auditable.

We anticipate that the end of waste criteria for biowaste will follow a similar format. However, it will also need to accommodate the wider variety of materials covered by the definition of biowaste.

Recycling and end of waste

Member States must achieve 50% recycling of waste from households and similar waste by 2020. The Commission has adopted a Decision which specifies the circumstances in which materials will count as recycled for the purpose of achieving the 2020 target. Defra will be issuing guidance on this in the next couple of months.

What happens next?

Defra and WRAP will continue to work with trade associations to assess the implications of the proposals and to keep industry, local authorities and others informed of the progress of the proposals. Defra and WRAP will also be working to ensure that the Commission is aware of the UK's experience in developing end of waste criteria and is able to take advantage of the expertise that we have developed.

Contacts for Further information

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² Council Regulation (EU) No 333/2011 of 31 March 2011 establishing criteria determining when certain types of scrap metal cease to be waste under Directive 2008/98/EC of the European Parliament and of the Council