

# Guidance when assessing plastic End of Waste Status

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## Background

The Basel Convention amendments mean that from 1 January 2021 certain movements of waste plastic to and from Great Britain will no longer be ‘green list’ and will instead require a permission of prior informed consent, also known as a notification.

Operators may consider self-assessing their plastic to meet End of Waste (EoW) status. Waste derived materials achieving end of waste status are not regulated as wastes and do not need waste documentation. The new stricter controls and costs of holding a notification are potentially encouraging operators to assess

end of waste status for their material. It is possible that the materials could have always achieved end of waste status, but are only now wanting to formally establish the non-waste status. Equally it is possible that operators are simply looking to avoid the tighter controls so we must ensure that the correct documentation and testing is being carried out.

This guidance aims to support Ports Officers and other Regulatory Officers to assess the documentation supplied by the holder to substantiate that their plastic is now product and therefore does not require waste documentation to be moved, either within England or internationally.

**! Important** Our position is an operator can self declare their material as having met the end of waste tests – but they must be able to demonstrate this with documentation. It is the documentation that we assess (i.e have they provided evidence to demonstrate it is non waste?) – we don't assess if the material is a non-waste or not and it is the courts ultimately who decide. We should check the documents provided to ensure they are genuine.

**! Important** If the material is being exported (or imported) all the Competent Authorities (dispatch, destination and any transit countries) must be satisfied that it has met the end of waste test [within article 6 of the Waste Framework Directive](#) and the material is now non waste - there must be documentary evidence showing this to a satisfactory standard – otherwise the material must be considered to be waste. Where there is a disagreement, the material will always fall to be waste and subject to the appropriate waste controls.

The operator should provide documentation from the relevant overseas Competent Authorities of destination and transit clearly stating their position on the waste status and any conditions they apply. If officers are in any doubt as to the authenticity of such documents, checks should be carried out with the relevant Competent Authorities via [askshipments@environment-agency.gov.uk](mailto:askshipments@environment-agency.gov.uk).

In October 2020 the EoW test wording within the Waste Framework Directive changed with a movement away from the use of 'applicable case law' to a harmonised EoW test with specific conditions that must be met. We have published brief [guidance here](#)

English law was updated on 1 October 2020 to include changes to the Waste Framework Directive (WFD) made in 2018. This was done through the [Waste \(Circular Economy\) \(Amendment\) Regulations 2020](#).

The changes to the WFD include changes to article 6, which covers end of waste criteria.

**! Important** The use of a quality protocol or the EoW test are voluntary. Without the evidence of assessment of compliance with the QP or end of waste test we should take a precautionary approach and regard the material as waste.

## Definition of Waste

The definition of waste is covered in detail [here](#).

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## Quality protocols

In England, Wales and Northern Ireland there are several quality protocols (QP) available. They are voluntary end of waste frameworks for specific wastes and end uses based on the end of waste test.

Quality protocols are updated regularly so you should check that the relevant QP is still in force and up to date – they may also have become known as Resource Frameworks. You should also check that the QP / Resource Framework is relevant - they may only apply to certain situations (England only for instance).

[Check if a quality protocol applies to the operation](#). The processing of the waste must meet the requirements set out in the relevant quality protocol to demonstrate end of waste.

The purpose of a quality protocol:

- to clarify the point at which secondary raw materials produced from waste cease to be waste and waste management controls are no longer required;
- to provide users with confidence that the secondary raw material they purchase conforms to their agreed specification; and
- to protect human health and the environment (including groundwater) by setting standards for producing secondary raw materials.

If the waste derived material does not meet the requirements in the relevant quality protocol, meet the end of waste test, it will remain waste so must comply with waste management controls. If the material is a residue from a manufacturing process and but does not meet the by-product test it is also waste.

If there is no applicable quality protocol, the waste status can be assessed on a case by case basis – either through engagement with the regulator, or via self-assessment following the principles set out below.

With regard to plastics, the non packaging plastics protocol (NPPP) may be the QP they refer to. PAS 103 appears to have been largely superseded by the NPPP.

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## End of Waste Test

### General Provision

Article 6 of the Waste Framework Directive states that the material must have undergone a recovery operation. We interpret this to mean that the EoW material must have had all relevant recycling/recovery activities completed and be capable of use for a specified purpose without further waste treatment.

**Therefore for example where plastic material is required to undergo further waste treatment prior to use for the specified purpose it cannot have achieved EoW status.** Further waste treatment might include contaminant

removal e.g. metals, screening and separation and/or size reduction. It means that if the material requires any kind of further processing to remove unwanted waste like properties then it cannot be non-waste.

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## End of Waste Test Specifics

The specifics of the new EoW test, in addition to the general provision above, are as follows:

### Article 6 (1) (a – d)

*(a) The substance or object is to be used for specific purposes;*

The intended purpose of the material must be clearly understood and the material must be ready to fulfil that purpose. In the case of plastics it is likely that the specified purpose is likely to be as a substitute for non-waste or virgin plastic.

If the material is not capable of being used for that specified purpose, perhaps because further treatment is required, it is extremely unlikely that EoW status has been achieved at this point. This clearly ties in with the general provision relating to a recovery.

Evidence will need to be supplied that the material, in its current form, will be used for the stated specified purpose. If the holder of the material is uncertain either about the specified purpose or the subsequent processing steps then they cannot be certain that the material has achieved EoW status. Where there is uncertainty we should continue to regard the material as a waste.

*(b) A market or demand exists for such a substance or object;*

Fulfilment of this condition means that we can have some level of certainty or assurance that the material is, on balance, likely to be used for the specified purpose and not stored indefinitely.

Evidence around the subsequent destination and use in the specified purpose is required together with evidence of an appropriate market and demand. This maybe through the provision of signed contracts that indicate the material is going to be used and is in demand from the customer.

*(c) The substance or object fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and,*

This condition ensures that the material is capable of being genuinely used for the specified purpose without breaching relevant standards or legislation. Each plastic will differ in the requirements, but some assistance may be provided by the NPPP relevant standards.

**Persistent Organic Pollutants (PoPs)** should be considered in some plastic waste streams. These are likely to be plastics derived from Waste Electrical and

electronic equipment such as display monitors. More information can be found here:

<https://www.gov.uk/guidance/classify-some-waste-electrical-devices-components-and-wastes-from-their-treatment>

<https://www.gov.uk/guidance/dispose-of-waste-containing-persistent-organic-pollutants-pops>

<https://www.gov.uk/dispose-hazardous-waste>

<https://www.gov.uk/government/publications/waste-classification-technical-guidance>

The presence of PoPs generally prevents the material from being recycled and achieving EoW status as the waste is required to be disposed of via a suitable treatment to destroy the PoPs such as high temperature incineration. Where there is a justifiable concern that PoPs are potentially present and that they would prevent recycling/EoW we should require evidence to show they are absent. This should take the form of a chemical compositional analysis. To interpret these, support may be sought from the Chemicals Compliance Team via [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)

*(d) The use of the substance or object will not lead to overall adverse environmental or human health impacts.*

We use the 'comparator approach' in assessing this criteria. This is about ensuring that the material can be used in exactly the same way as the material it replaces with no worse human health or environmental impact.

With respect to plastics this means that the material should be capable of replacing non-waste plastic and not need any further treatment other than exactly the same treatment that the non-waste plastic is receiving.

Its use, both manufacture into a finished article and the use of the finished article itself, should not impact human health or the environment more than the non-waste material it replaces. This is likely to be evidence by a composition analysis to show how the composition compares between the waste derived plastic and the equivalent non-waste material.

### **Article 6 (2) (a-e)**

There are additional criteria which apply to quality protocol wastes. These may also apply to case by case opinions '*where necessary*'. '*Where necessary*' is not defined and can probably only be determined on a case by case basis. These criteria include; defining permissible waste inputs, allowable treatment processes and techniques and a statement for conformity. Again, reference to the NPPP should be made.

## Non Packaging Plastics Protocol

If the operator can demonstrate that met the standard set out in this quality protocol (QP) and the [rules for all QPs](#) then the material will be regarded as fully recovered and no longer subject to waste controls.

**! Important** This QP applies to England, Wales and Northern Ireland. It does not automatically apply in Scotland or any other countries.

- <https://www.gov.uk/government/publications/non-packaging-plastics-quality-protocol/non-packaging-plastics-quality-protocol>

Although the NPPP QP applies to NPPP only we are happy to accept that PP meeting the same standards also achieves end of waste status. This means if the material produced meets the specifications set out in the NPPP it will no longer be considered to be waste and waste controls will no longer apply. Packaging recovery notes (ePRNs) can be issued on the tonnage of UK sourced plastic packaging waste received.

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## Compliance with the protocol

To comply with the NPPP the material must meet and have been processed in accordance with all the requirements of the relevant European and British Standards (listed in Appendix B of protocol). The standards (for example BS EN 15348:2007) has a set of required tests and the methodology that must be used for the analysis, for example (amongst others) maximum particle size, melt mass-flow rate and water content. There may also be some optional tests specified by the customer. There are no indications of what the results should be, but the reprocessor should be able to demonstrate that the material meets the customer's specification.

All of the standards are available via Athens and then the Barbour Index <http://intranet.ea.gov/knowledge/library/databases/10683.aspx>

Each copy of the standards are licenced so officers should have their own copies – please do not share them as this breaches the licence conditions.

Operators should have documentary proof that they have undertaken the testing in accordance with the relevant standard for all tests required by the standard and any other tests specified by the customer. The purpose of the NPPP is to ensure a minimum quality of material, regardless of whether a lesser standard is required by a purchaser.

We need to check and verify the materials:

- have been processed in accordance with all the requirements of the relevant European and British Standards;
- meet any additional requirements specified by the customer;

- have been supplied to the customer for use in an identified plastics manufacturing process; and
- have been supplied to the customer with a Quality Protocol compliant safety data sheet.
- Have been supplied with a copy of the Quality Statement.

**Table 1 Guidance on the requirements of the NPPP and the documentation required by the reprocessor to demonstrate compliance**

Records must be kept of incoming wastes	<p>Specifically, a record of each load delivered to site must be kept giving:</p> <ul style="list-style-type: none"> <li>● date;</li> <li>● European Waste Catalogue (EWC) code and description;</li> <li>● place of origin (where known);</li> <li>● quantity by weight/volume;</li> <li>● registered waste carrier;</li> <li>● supplier; and</li> <li>● whether the load was accepted.</li> </ul>
Certificate of Analysis to prove they have met the British Standard	<p>There are several British Standards (BS) available for different types of product produced (referred to in the BS as recyclate) For example Polyethylene recyclate (PE) and Polyethylene terephthalate (PET).</p> <p>Every batch of material needs to have been analysed and the results available if requested by the Environment Agency.</p>
Customer Requirements	<p>The company should have documentary proof (i.e. a letter / contract) from the customer using the material that it meets all of their required specifications. It should be accompanied by an invoice, purchase order or other record of a request and transaction for the material.</p> <p>Details should include things like the colour, size of material and melting temperature etc. They may also include optional tests such as alkalinity and filterability.</p>
Supplied to the customer for use in an identified plastics manufacturing process.	<p>The exporter must have documentary proof (e.g. a letter / contract) from the customer that the material supplied to them has / will be used in their manufacturing process to produce a product. The confirmation must include that the material supplied to their customer is going directly into a recognised process i.e. first remelt process. This will be where there is an application of heat to the plastic material.</p>



**Table 1 Guidance on the requirements of the NPPP and the documentation required by the reprocessor to demonstrate compliance**

	<p>It is not acceptable for the reprocessor to refer us to their customer’s website. We need written and dated confirmation from the customer that the material has gone into this recognised process. We would need to know details of the customer doing this identified process and not any intermediary.</p> <p>The NPPP states (1.1.3)  “Producers and users of secondary raw material should note that, even if the Quality Protocol is complied with and the secondary raw material has ceased to be waste, the material will become waste again and subject to waste management controls if it is at any stage:  - disposed of; or  - stored indefinitely with little prospect of being used.”</p>
<p>Quality Protocol compliant safety data sheet</p>	<p>The Quality Protocol compliant safety data sheet information is set out in Annex 2 below which must be fully completed in order to give the customer the required information about the material.</p> <p>If the same type of plastic is supplied to the same customer = one safety datasheet per year</p> <p>They do not need one per batch unless it is a different type of material to a different customer.</p>
<p>The Quality Statement.</p>	<p>The quality statement must include the following information:</p> <ul style="list-style-type: none"> <li>• Declaration of conformance to the European standard to which the material has been produced.</li> <li>• Declaration of conformance to the specification agreed between reprocessor and customer.</li> </ul> <p>Declaration of conformance to this Quality Protocol. This should be on a batch by batch basis.</p>
<p><b>What happens if...?</b></p>	
<p>Mixing of the material</p>	<p>Under 1.3.1 of the NPPP, the material must be supplied to the customer for use in an identified plastics manufacturing process.</p>



**Table 1 Guidance on the requirements of the NPPP and the documentation required by the reprocessor to demonstrate compliance**

	<p>1.3.3 - If secondary raw material that complies with the Quality Protocol is mixed with waste materials, the resulting mix will be considered to be a waste and subject to waste management controls.</p> <p>1.3.4 - If secondary raw material that complies with the Quality Protocol is mixed with other non-waste materials, the resulting mix will not be waste.</p>
Where non compliance with the protocol or the producer cannot demonstrate evidence of compliance	If the NPPP is not complied with then the secondary raw materials produced will normally be considered to be waste. In such circumstances, the Producer/user must comply with the appropriate waste management controls for the transportation, storage and use of the secondary raw material and may be committing an offence if they do not do so.
Operators intend to export Quality Protocol compliant materials	<p>They should be aware that, although the material may cease to be waste in England, Wales and NI, the country of Destination may take a different view. If the material is exported to an end user as product there must be documentary evidence to demonstrate that the Destination (and any transit) Competent Authority also considers it to be product and not waste.</p> <p>Under the Waste Shipment Regulation (EC/1013/2006), if the Competent authority in the country of destination considers the material to be waste, the controls specified in that Regulation will apply to the shipment.</p>
The exporter does not sell the material directly to the end user	They must have the relevant documentation from the downstream parties concerned to demonstrate the above.

**! Important** Definition of Batch - this is what goes through the process/machine at the same time before the machine is stopped/suspended. It is a generic term to describe each consignment of recyclate prepared on behalf of a purchaser.

## When the final product is no longer waste

Non-packaging plastics that are processed and recovered for reuse will not be subject to waste controls when the operator can show they have:

- used only permitted waste non-packaging plastics as input materials (remember it also applies to packaging plastics)
- stored and processed the waste correctly, meeting the required standards including all inspections and tests

And the products made from the waste:

- need no further treatment before use
- meet any extra specifications made by the customer
- are only for use in plastics manufacturing

Records of processes and methods, and any test or inspection results must be kept for 2 years (or 4 years where the material is the subject of an evidence claim for producer responsibility).

[Waste controls](#) must be applied until the point the material is no longer waste. This includes having the correct [authorisation](#) in place for the transport, storage, handling and treatment of waste.

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## Annex 1 Article 6 End-of-waste status

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

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

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

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

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

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

## Annex 2 Information requirements of an NPPP Quality Protocol compliant safety data sheet

1. Identification of the substance/preparation and of the company/undertaking
  - Identification of the product.
  - Use of the product (including recommended end-use applications).
  - Identification of the company.
  - Emergency telephone number.
  - Information about the product (e.g. what it consists of).
  - Standards for recycled plastics.
2. Hazards identification
  - Chemical characterisation.
  - Hazardous ingredients
3. Composition/information on ingredients
4. First-aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/personal protection
  - Exposure limit values.
  - Occupational exposure controls.
  - Environmental exposure controls
9. Physical and chemical properties
10. Stability and reactivity
  - Conditions to avoid.
  - Materials to avoid.
  - Hazardous decomposition products.
11. Toxicological information
  - Toxicological data.
  - Health effects
12. Ecological information
  - Ecotoxicity.
  - Mobility.
  - Persistence and degradability.
  - Bio-accumulative potential.
  - Other adverse effects.
13. Disposal considerations

- Waste treatment.
- Packaging treatment.

14. Transport information

15. Regulatory information

16. Other information

#### Annex Exposure scenarios

This section needs to be completed if there is any hazardous content.

It must contain:

- Basic information on hazardous content.
- Main route of human exposure.
- Main route of environmental exposure; and
- Risk management measures.

## Annex 3 Table of relevant British and European Standards

Reference Number	Title	Comments	Required for NPPP compliance?
BS EN 15342:2007	Recycled Plastics – Characterisation of polystyrene (PS) recyclates	Recyclate standards only apply to single polymer flake.  For mixed polymer flake, only relevant standards are EN15343, and EN15347	
BS EN 15343:2007	Recycled Plastics – recycling traceability and assessment of conformity	Sets out info to be given to customers as evidence of recycled content.	YES if required by customers.
BS EN 15344:2007	Recycled Plastics – Characterisation of polyethylene (PE) recyclates	Recyclate standards only apply to single polymer flake.  For mixed polymer flake, only relevant standards are EN15343, and EN15347	
BS EN 15345:2007	Recycled Plastics – Characterisation of polypropylene (PP) recyclates	Recyclate standards only apply to single polymer flake.  For mixed polymer flake, only relevant standards are EN15343, and EN15347	
BS EN 15346:2014	Characterisation of poly(vinyl chloride) (PVC) recyclates	Recyclate standards only apply to single polymer flake.	

Reference Number	Title	Comments	Required for NPPP compliance?
		For mixed polymer flake, only relevant standards are EN15343, and EN15347	
BS EN 15347:2007	Characterisation of waste plastics	Requires completion of a table to be supplied to customers. NB provision of some information in table is optional.	YES
BS EN 15348:2007	Characterisation of polyethylene terephthalate (PET) recyclates	Recyclate standards only apply to single polymer flake.  For mixed polymer flake, only relevant standards are EN15343, and EN15347	

**These standards may be updated from time to time. You should use the same standard number with the latest year to denote the latest publication.**



<b>Annex 4 Criteria for Assessment Checklist</b> Summarised from <a href="#">Gov.UK NPPP guidance</a>	Yes / No – provide detail
Applies to England, Wales and Northern Ireland only – are these the only countries involved?	
If the material is for import or export, is there documentation from the other overseas competent authorities confirming the material is not waste?	
NPPP compliant product <ul style="list-style-type: none"> <li>● needs no further treatment before use</li> <li>● meets all specifications of customer</li> <li>● is only for use in plastics manufacturing</li> </ul>	
Keep records of processes and methods, and any test or inspection results needed for NPPP compliance to be kept for 2 years. Unless under <b>Packaging Regulations that require records to be kept for 4 years.</b>	
Records of incoming waste <ul style="list-style-type: none"> <li>● waste type, including the EWC code</li> <li>● volume or weight</li> <li>● source of the waste</li> <li>● date of delivery, if the waste is not already on site</li> <li>● name and address of supplier</li> <li>● name and address of carrier</li> <li>● your method for confirming the waste is acceptable input material – if not, your rejection reasons and what you did with the rejected waste</li> </ul>	
Process the non-packaging waste plastic to the required standards	See Annex 3
A quality compliant safety data sheet prepared for customers.	See Annex 2
A statement confirming the product supplied: <ul style="list-style-type: none"> <li>● conforms to the required standards – include a list of the standards applied</li> <li>● meets the specification agreed by you and the customer</li> <li>● meets the quality protocol for waste non-packaging plastics</li> </ul>	
Copies of documents given to customers. These should show the: <ul style="list-style-type: none"> <li>● date of product dispatch</li> <li>● quantity by weight or volume</li> <li>● name and address of the customer</li> <li>● description of the receiving company's business</li> </ul>	

<p>Non-waste status of QP compliant material is lost if at any stage you or any other holder of NPPP compliant material (e.g., customers):</p> <ul style="list-style-type: none"> <li>● are required to dispose of it or dispose of it</li> <li>● store it indefinitely, with little prospect of use.</li> <li>● is blended with waste material (then the whole mixed volume will become waste).</li>   <li>● If blended with non-waste material, the whole volume is non-waste – but you will need to check that it is suitable for use in a plastics manufacturing process</li> </ul>	
<p>Records must be legible (including translation where relevant) and available to the regulator on request.</p>	