

# END-OF-WASTE CRITERIA FOR WOODCHIP

## **SINGLE CASE DECISION FOR TIGER WOODCHIP LIMITED**

This document sets out end-of-waste criteria for  
woodchip,  
produced by Tiger Woodchip Limited.

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Decision establishing End-of-Waste Criteria  
under  
Regulation 28 of the European Union (Waste Directive) Regulations 2011-2020  
for  
woodchip,  
produced by  
Tiger Woodchip Limited,  
Fassaroe,  
Bray,  
County Wicklow.

Decision Date: 30<sup>th</sup> November 2021

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# 1 Introduction

This introduction is not part of the decision and does not purport to be a legal interpretation of the decision. Article 6 of the Waste Framework Directive<sup>1</sup>, 2008, as amended was transposed into Irish law by the European Union (Waste Directive) Regulations 2011-2020<sup>2</sup> (hereafter referred to as the Regulations). Article 6 (End-of-waste status) of the Waste Framework Directive 2008/98/EC as amended by Directive 2018/851, was transposed into Irish law via Part 3 Regulation 28 (End-of-waste) of the European Union (Waste Directive) Regulations 2011-2020. Regulation 28 of the Regulations assign responsibility to the Environmental Protection Agency to make certain decisions regarding end-of-waste.

End-of-waste is a means of determining the point at which, for the purposes of waste regulation, a material need no longer be classified as waste after it has undergone a recovery operation, including recycling, and complies with specific criteria developed in accordance with the specific conditions outlined in the Regulations. Compliance with the end-of-waste criteria, as outlined in this document, is sufficient to ensure that woodchip may be used as a secondary material without the need for waste regulation or control. The woodchip will be sold to a specific user who will use the woodchip to manufacture composite pallet blocks.

These end-of-waste criteria may be reviewed and updated by the Agency at any stage based on the experience of practical applications, technological developments or legislative amendments. The Agency reserves the right to depart from the position outlined and to take appropriate action to avoid overall adverse environmental or human health impacts. If at any time the European Commission publishes generally applicable end-of-waste criteria for woodchip, those European criteria may supersede these criteria and the Agency may withdraw this decision.

These end-of-waste criteria are applicable in Ireland. End-of-waste compliant material can be placed on the export market where:

- approval has been attained from the destination country's relevant competent authority that this authority recognises the recovered material as a non-waste prior to the material being placed on that market;
- The National Transfrontier Shipments Office has been contacted and confirmation has been attained that they recognise this approval from another jurisdiction prior to the material being placed on that market; and
- Record of the above approval(s) and confirmations are maintained and available for inspection at the Producer's facility.

The material shall become waste again and subject to waste management controls if:

- any critical data in the approved batch record for the finished product is found to be false and the finished product does not meet the required finished product specification;
- the finished product is discarded or there is an intention or requirement to discard, for example if it is disposed of or if the finished product has exceeded its labelled expiry date;
- it is stored for a period greater than may be specified in the end-of-waste criteria;
- it is mixed with other waste materials;
- the producer cannot provide documented evidence of compliance with these end-of-waste criteria;

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<sup>1</sup> Waste Framework Directive - Directive 2008/98/EC on waste, as amended by Directive 2018/851.

<sup>2</sup> Waste Directive Regulations - European Communities (Waste Directive) Regulations 2011 (SI 126 of 2011), as amended by European Union (Waste Directive) Regulations 2020 (S.I. No. 323 of 2020).

- the producer cannot provide evidence that there is a sustained active market for the finished product;
- the producer cannot provide evidence that the requirements have been satisfied for the export market on which the finished produced has been placed; or
- if there is a requirement to recall the finished product from the market.

This decision document is for the purposes of Regulation 28 of the European Union (Waste Directive) Regulations 2011-2020 only and nothing in this document shall be construed as negating Tiger Woodchip Limited or users' statutory obligations or requirements under any other authorisations (including planning permission), enactments or regulations.

The decision sets out in detail the end-of-waste criteria for the production of woodchip by Tiger Woodchip Limited.

## 2 Decision

The Agency has decided, in accordance with Regulation 28(3) of the European Union (Waste Directive) Regulations 2011 - 2020, that the woodchip (as defined in *Appendix 1*), the subject of the application made by Tiger Woodchip Limited on the 24<sup>th</sup> of June 2019 and produced at an appropriately authorised waste facility operated by Starrus Eco Holdings Limited (SEHL), will cease to be waste if it complies with the end-of-waste criteria set out in this document.

The Agency is satisfied, based on:

- the information provided by the applicant, including additional information;
- the fact that the recovered material will serve a useful purpose in continuing to replace the use of the primary raw material in composite pallet block production;
- the fact that the recovered material will be required to meet the customer's product specification in order to fulfil the same function as the primary raw material;
- the fact that the recovered material will have an associated REACH registration and is required to meet all current product requirements prior to placing the material on the market;
- Agency's May 2020 Draft Guidance on End-of-Waste; and
- Joint Research Centre, 2009 Final Report on 'End-of-waste criteria',

that, subject to compliance with the requirements of this decision, the woodchip conforms with the requirements of Regulation 28(1)(a) and Regulation 28(2) of the Regulations and its use as a raw material in composite pallet block manufacture will not lead to overall adverse environmental and human health impacts, if used in a regulated production environment the outputs of which meet the requirements of the relevant product legislation.

## 3 Criteria for Materials Handling and Control

### 3.1 Waste Inputs

3.1.1 Inputs shall only be accepted from producer-approved waste authorised suppliers.

3.1.2 Inputs shall be restricted to the following List of Waste (LoW) codes for waste wood:

- 15 01 03 – wooden packaging (for example pallets);

- 17 02 01 – wood (from construction and demolition waste);
- 19 12 07 – wood other than that mentioned in 19 12 06 (from mechanical treatment of waste)
- 20 01 38 – wood other than that mentioned in 20 01 37 (separately collected municipal fractions of municipal wastes); and
- 20 02 01 – biodegradable waste (from garden and park wastes)<sup>3</sup>.

3.1.3 Each load of waste input shall be assigned a unique identifier.

3.1.4 Inputs shall meet the incoming waste acceptance criteria.

3.1.5 Hazardous waste shall not be used as an input.

3.1.6 Where non-conforming waste is delivered, it shall be immediately moved to a designated quarantine area and stored pending return to the supplier's waste management facility.

## 3.2 Recovery Process

3.2.1 The recovery processes (sorting, shredding, metal removal and bulking) shall be completed in accordance with waste regulatory requirements, including requirements relating to compliance with the waste authorisation for the facility in which the woodchip is produced.

## 3.3 Quality of Woodchip

3.3.1 The woodchip shall comply with the relevant product technical standard(s), legislative requirements and customer specifications for supply, sale and direct use as a raw material in the production of composite pallet blocks.

3.3.2 Each batch of the woodchip shall be assigned a unique identifier. The recovered woodchip shall be tested, in an accredited laboratory, using an accredited test method (where available), and comply with the criteria set out in *Appendix 2*.

3.3.3 The recovered woodchip shall:

- i. comply with relevant provisions of the REACH<sup>4</sup> Regulation;
- ii. comply with relevant provisions of the Classification, Labelling and Packaging (CLP)<sup>5</sup> Regulation; and
- iii. comply, where applicable, with relevant provisions of the POPs<sup>6</sup> Regulation.

As regulations are subject to amendment and replacement, it is the producer and the user's responsibility to ensure that current regulations are referred to.

3.3.4 The woodchip shall not be stored for a period greater than 24 months. Products that exceed the time limit for storage shall be deemed to be waste.

<sup>3</sup> This shall be restricted to wood.

<sup>4</sup> Registration, Evaluation, Authorisation and Restriction of Chemicals - Regulation 1907/2006/EC (REACH).

<sup>5</sup> Classification, Labelling and Packaging - Regulation (EC) No 1272/2008 (CLP).

<sup>6</sup> Persistent Organic Pollutants Regulation (EU) No. 2019/1021 (POP).

## 4 Criteria for Demonstrating Compliance with the Decision Establishing End-of-Waste Criteria

Tiger Woodchip Limited shall demonstrate compliance with the requirements of this decision and if unable to do so the woodchip will be considered a waste.

### 4.1 Records Management

To demonstrate compliance with these end-of-waste criteria, the following records of production, testing and sale or supply of the recovered woodchip shall be maintained:

- 4.1.1 A quality management system shall be implemented to demonstrate compliance with the end-of-waste criteria.
- 4.1.2 The quality management system shall be certified by a body accredited by the Irish National Accreditation Board.
- 4.1.3 The quality management system shall include a set of documented procedures concerning each of the following aspects:
  - i. visual inspection of the input waste wood to establish the content and nature of any contaminant components. The procedure shall include:
    - a) the steps involved in the visual inspection of the input waste;
    - b) the process for determining whether non-conforming materials exceed 10% by mass of the total volume; and
    - c) visual inspection frequency.
  - ii. sampling and analysis of the output material (woodchip) to establish the content and nature of any contaminant components and monitor the quality of the output resulting from the recovery operation. The procedure shall include:
    - a) the types of testing for the product;
    - b) the process for determining sampling frequencies; and
    - c) sampling and testing frequency.
  - iii. monitoring of the treatment processes and techniques.
  - iv. acceptance control of waste used as input for the recovery operation.
  - v. feedback from customers concerning the product quality.
  - vi. record keeping of the results of monitoring conducted under points (i) to (v).
  - vii. review and improvement of the quality management system.
  - viii. training of staff.
  - ix. specific monitoring requirements set out for each criterion.
  - x. compliance with the relevant product standards, legislative requirements and customer specifications.
  - xi. use, control, calibration and maintenance of inspection, measuring and test equipment. Equipment shall be uniquely identified.
  - xii. identification and management of non-conforming woodchip.

- 4.1.4 Training records shall be maintained to demonstrate that all relevant persons have been appropriately trained in all aspects of these criteria, including the relevant product standard(s), legislative requirements and customer specifications.
- 4.1.5 In order to demonstrate that the woodchip does not pose a risk to the environment or human health, the producer shall make available:
- i. the results of any analysis carried out;
  - ii. interpretative reports including laboratory results;
  - iii. details of the test methods used;
  - iv. details of the accreditation of the test method;
  - v. details of the accreditation of the laboratory;
  - vi. independent audit reports demonstrating the outcome of any independent audit of the woodchip processing shall be made available for inspection; and
  - vii. if contaminants above the allowable limits are identified, details of the actions taken to correctly dispose of the non-conforming load(s) and corrective action(s) taken prior to dispatch and to prevent any such recurrence.
- 4.1.6 A register of non-conforming products for these criteria shall be maintained. The register shall contain information as to the reasons for the non-conformance and the manner in which the non-conformance was rectified. The register should also include information on the outlet for the non-conforming product.
- 4.1.7 A 'statement of conformity' shall be completed for each consignment of recovered woodchip leaving the facility. The statement of conformity shall:
- i. include the details for the producer of the woodchip;
  - ii. include a product description and the unique identifier for each batch included in the consignment;
  - iii. include a statement that the consignment meets the criteria referred to in this decision (End-of-waste Decision ART28-0038);
  - iv. state that the producer of the woodchip applies a management system complying with the requirements of this decision (End-of-waste Decision ART28-0038), and which has been verified by an accredited conformity assessment body or by an environmental verifier or, where woodchip which has ceased to be waste is imported into the customs territory of the Union, by an independent external verifier;
  - v. state that the relevant provisions of the REACH Regulation and the CLP Regulation have been complied with, and POPs Regulation (where applicable);
  - vi. state the relevant provisions of the appropriate product standard(s) and customer specifications to which the recovered woodchip has been complied with. Details of the name of the specific standard(s) and specification(s) which are being applied are to be included;
  - vii. state any restrictions on use;
  - viii. state the date of supply;

- ix. state the customer's name and contact details;
  - x. state the quantity supplied by weight / volume;
  - xi. be issued in electronic form;
  - xii. be issued prior to the recovered woodchip leaving the facility;
  - xiii. be accompanied by or contain a link to an electronic copy of the safety data sheet for the recovered woodchip; and
  - xiv. be signed and dated by the producer of the recovered woodchip certifying that the above information is complete and correct.
- 4.1.8 The producer shall transmit the statement of conformity to the next holder of the consignment. They shall retain a copy of the statement of conformity for at least one year after its date of issue.
- 4.1.9 The producer shall maintain documentary evidence, for assessment by the relevant competent authority which demonstrates compliance, where appropriate, with the provisions of the REACH Regulation, CLP Regulation, and POPs Regulation (where applicable). The producer shall ensure these matters are addressed in customer supply contracts.
- 4.1.10 All records including controls, inspections and training shall be retained for a minimum of five years.
- 4.1.11 Records including any electronic media shall be stored and maintained in a manner that they are readily retrievable and protected against damage, deterioration or loss. Records shall be legible, identifiable and traceable to the process or product. All reviews and revisions of procedures are to be included in an annex to the most up to date version of that procedure.
- 4.1.12 The producer shall, upon request, provide competent authorities including the Agency, relevant local authorities, the Health and Safety Authority (HSA), the National Transfrontier Shipments of Waste Office, Market Surveillance Authority and the Competent National Authority access to the environmental management system, including the end-of-waste application<sup>7</sup> and statement of conformity.

## 5 Criteria on Use and Restrictions on Use

The user of woodchip that is produced in compliance with these criteria shall take full account of any environmental impact resulting from such use. To comply with these criteria, the following restrictions apply:

- the woodchip is to be used as a raw material in the manufacture of composite pallet blocks only, where the emissions from the production process using the woodchip are appropriately authorised and regulated by a competent authority; and
- the woodchip is limited to sale and use in the customer's (Eirebloc) waste authorised facility at Lissarda, Co. Cork.

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<sup>7</sup> The end-of-waste application submitted to the Agency on the 24<sup>th</sup> of June 2019.

These criteria do not affect the obligation of producers to hold and comply with a waste collection permit, certificate of registration, waste facility permit or waste/industrial emissions licence or any other National or European legislation which may apply when transporting, storing or processing waste. These criteria do not affect permitting or any other legal requirements that do not depend on the status of the material as a waste.

## Appendix 1: Glossary of Terms

Applicant	Tiger Woodchip Limited of Fassaroe, Bray, County Wicklow.
Authorised waste facility	A facility which has been granted a waste authorisation in the form of an Industrial Emissions licence, a waste licence, a waste facility permit or a certificate of registration.
Woodchip	Recovered woodchip that meets these end-of-waste criteria.
CLP Regulation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
Consignment	Each load of woodchip that leaves the facility.
Hazardous waste	As defined in the Waste Management Act 1996, as amended.
Non-Conforming Product	A product that does not meet the requirements of the product technical standard(s) or legislative requirements as appropriate.
POP Regulation	Regulation (EU) 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants.
Producer	Tiger Woodchip Limited of Fassaroe, Bray, County Wicklow.
REACH Regulation	Regulation (EC) No. 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
Recovered Material	Woodchip that meet these end-of-waste criteria.
Recovery	As defined in the Waste Management Act 1996 as amended.
Recycling	As defined in the Waste Management Act 1996 as amended.
Statement of Conformity	A statement that the woodchip conforms to end-of-waste criteria, product standards and specifications, and includes details of restrictions on the use of the woodchip.
User	Eirebloc Limited of Lissarda, County Cork.
Waste	As defined in the Waste Management Act 1996 as amended.

## Appendix 2: Criteria for Sample Analysis

The producer must comply with criteria set out in this document, including specifications and pollutant limit specified below, for the output material (woodchip) at the time it is produced.

Should any of the specifications as registered under REACH or otherwise be amended or replaced, the most recent version of the specification shall be complied with. It is the responsibility of the producer and users to ensure that the most up to date version is being applied.

**Table 1:** Finished Product Specification for physical and chemical testing.

Parameter	Analysis Method	Specification / Pollutant Limit	Unit
Manufactured Dense Fibreboard (MDF)	User Defined	5 (maximum)	% by weight
Non-Wood Waste High Density (metal stone, dense plastics, tiles etc.)	User Defined	2 (maximum)	% by weight
Non-Wood Waste Low Density (plastics, domestic waste, foam, textiles etc.)	User Defined	2 (maximum)	% by weight
Size (2 mm - 35 mm)			
Fines (less than 2 mm)		10 (maximum)	% by weight
Acceptable (2 mm - 35 mm)	User Defined	85 (minimum)	% by weight
Oversize (35 mm - 60 mm)		3 (maximum)	% by weight
Moisture Content	User Defined	10 (maximum)	% by weight
Total Heavy Metals (Cadmium, hexavalent Chromium, Lead and Mercury)	CEN/TR 13695-2:2019	100	ppm