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# The Regulation and Management of Waste Wood



## **Environmental Protection Agency**

The Environmental Protection Agency (EPA) is a statutory body responsible for protecting the environment in Ireland. We regulate and police activities that might otherwise cause pollution. We ensure there is solid information on environmental trends so that necessary actions are taken. Our priorities are protecting the Irish environment and ensuring that development is sustainable.

The EPA is an independent public body established in July 1993 under the Environmental Protection Agency Act, 1992. Its sponsor in Government is the Department of the Environment, Community and Local Government.

## **OUR RESPONSIBILITIES**

### **LICENSING**

We license the following to ensure that their emissions do not endanger human health or harm the environment:

- waste facilities (e.g., landfills, incinerators, waste transfer stations);
- large scale industrial activities (e.g., pharmaceutical manufacturing, cement manufacturing, power plants);
- intensive agriculture;
- the contained use and controlled release of Genetically Modified Organisms (GMOs);
- large petrol storage facilities.
- waste water discharges
- dumping at sea

### **NATIONAL ENVIRONMENTAL ENFORCEMENT**

- Conducting over 1200 audits and inspections of EPA licensed facilities every year.
- Overseeing local authorities' environmental protection responsibilities in the areas of - air, noise, waste, waste-water and water quality.
- Working with local authorities and the Gardaí to stamp out illegal waste activity by co-ordinating a national enforcement network, targeting offenders, conducting investigations and overseeing remediation.
- Prosecuting those who flout environmental law and damage the environment as a result of their actions.

### **MONITORING, ANALYSING AND REPORTING ON THE ENVIRONMENT**

- Monitoring air quality and the quality of rivers, lakes, tidal waters and ground waters; measuring water levels and river flows.
- Independent reporting to inform decision making by national and local government.

### **REGULATING IRELAND'S GREENHOUSE GAS EMISSIONS**

- Quantifying Ireland's emissions of greenhouse gases in the context of our Kyoto commitments.
- Implementing the Emissions Trading Directive, involving over 100 companies who are major generators of carbon dioxide in Ireland.

### **ENVIRONMENTAL RESEARCH AND DEVELOPMENT**

- Co-ordinating research on environmental issues (including air and water quality, climate change, biodiversity, environmental technologies).

### **STRATEGIC ENVIRONMENTAL ASSESSMENT**

- Assessing the impact of plans and programmes on the Irish environment (such as waste management and development plans).

### **ENVIRONMENTAL PLANNING, EDUCATION AND GUIDANCE**

- Providing guidance to the public and to industry on various environmental topics (including licence applications, waste prevention and environmental regulations).
- Generating greater environmental awareness (through environmental television programmes and primary and secondary schools' resource packs).

### **PROACTIVE WASTE MANAGEMENT**

- Promoting waste prevention and minimisation projects through the co-ordination of the National Waste Prevention Programme, including input into the implementation of Producer Responsibility Initiatives.
- Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE) and Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

### **MANAGEMENT AND STRUCTURE OF THE EPA**

- The organisation is managed by a full time Board, consisting of a Director General and four Directors.
  - The work of the EPA is carried out across four offices:
    - Office of Climate, Licensing, Research and Resource Use
    - Office of Environmental Enforcement
    - Office of Environmental Assessment
    - Office of Communications and Corporate Services
- The EPA is assisted by an Advisory Committee of twelve members who meet several times a year to discuss issues of concern and offer advice to the Board.

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# **THE REGULATION AND MANAGEMENT OF WASTE WOOD**

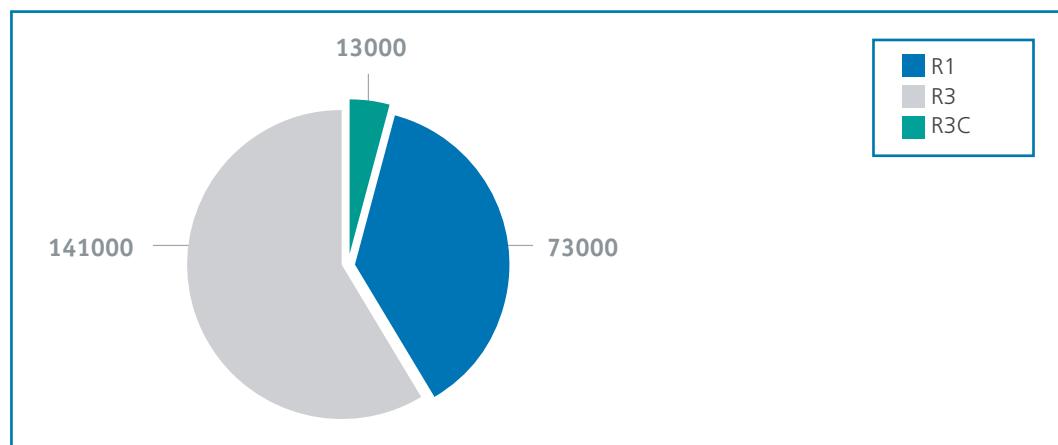


**This Position Paper sets out the current position of the Environmental Protection Agency (EPA) on the regulation and management of waste wood.**

**The objective of the document is to achieve a common understanding among regulators, the waste industry and end users of what constitutes waste wood, the factors that influence its determination, how it is regulated and the appropriate end uses.**

Over 220,000 tonnes of segregated non-hazardous waste wood was reported as generated and recovered in Ireland in 2010<sup>1</sup>. The main sources were outputs from mechanical waste treatment facilities, packaging waste, construction and demolition (C&D) waste and municipal waste. Relatively minor amounts of segregated waste wood were reported as exported or imported for recovery or disposal. Waste wood may also be disposed of in mixed C&D and municipal waste streams. It should be noted that virgin residual wood from forestry, sawmills and similar, which is classed as a by-product rather than a waste, is not included in this figure.

The three primary uses of waste wood noted from the National Waste Report 2010 dataset were general recovery applications (R3), recovery in composting processes (R3C) and the use as a fuel (R1).



**Figure 1** Reported Uses of Waste Wood in 2010

The main environmental concern in relation to waste wood is potential environmental pollution as a result of the presence of:

- ▼ treatments/coatings such as paints, laminates, varnishes and preservatives;
- ▼ resins and glues; and
- ▼ extraneous materials such as metals, grit, plastics, glass, paper and textiles.

Contaminants of particular concern include heavy metals and halogenated organic compounds. The UK Waste and Resources Action Programme found that 85% of wood from civic amenities and 74% of C&D waste wood was treated<sup>2</sup>.

<sup>1</sup> Environmental Protection Agency (EPA) (2012) *National Waste Report 2010*.

<sup>2</sup> Waste and Resources Action Programme (WRAP) (2005) *Options and Risk Assessment for Treated Wood Waste* and Waste and Resources Action Programme (WRAP) (2009) *Composition of Wood Waste from Construction & Demolition (C&D) sites*.

## WASTE WOOD

**The following types of wood are generally considered to be waste:**

- ▼ discarded treated and untreated wood products. In this context, treatment means the application of chemicals (paints, laminates, varnishes and preservatives) to enhance the performance of the product or other artificial impregnation or coating;
- ▼ off cuts, shavings, chip and dust arising from the processing of treated wood;
- ▼ any virgin wood mixed with the above; and
- ▼ any wood separated, segregated or otherwise obtained from mixtures of the above.

These are waste and are subject to regulatory control unless the holder demonstrates, to the satisfaction of the relevant competent authority (EPA or Local Authority), that the material meets applicable by-product or end-of-waste status criteria.

**Figures 2-5 shows typical waste wood found in waste transfer stations.**



**Figure 2** Incoming waste wood at Waste Transfer Station



**Figure 3** Incoming waste wood at Waste Transfer Station



**Figure 4** Final woodchip at Waste Transfer Station



**Figure 5** Final woodchip at Waste Transfer Station

## BY-PRODUCT

**Regulation 27 of the Waste Directive Regulations (S.I. 126 of 2011) provides that a substance or object, resulting from a production process, the primary aim of which is not the production of that item, may be regarded as not being waste but as being a by-product only if the following conditions are met:**

- ▼ the further use of the substance or object is certain;
- ▼ the wood can be used directly without any further processing, other than normal industrial practice;
- ▼ the wood is produced as an integral part of a production process; and
- ▼ further use of the wood is lawful, i.e. the wood fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts

Operators must notify the EPA when they make a decision that a material is to be regarded as a by-product. Where no notice is given to the EPA, the material is presumed in law to be a waste until the contrary is proved. Following notification and consultation, the EPA may determine that a material should be considered as waste and not as a by-product and that determination is final. The form for notifying the EPA of by-product decisions and further information is available at:

<http://www.epa.ie/waste/wastereg/byprod/>

Without prejudice to the above, the EPA considers that the following typically meet Regulation 27 requirements:

- ▼ residual branches, bark, chip and dust arising from tree felling and tree surgery; and
- ▼ virgin wood from sawmilling (Figure 6) and the manufacture of timber products.

These types of wood meet the criteria outlined above once they:

- ▼ are not discarded;
- ▼ are not mixed with non-virgin woods;
- ▼ are untreated; and
- ▼ are free of extraneous materials such as metals.



**Figure 6** Virgin wood from sawmilling

## END-OF-WASTE

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**Regulation 28 of the Waste Directive Regulations (S.I. 126 of 2011) sets out the grounds by which a material which is recovered from waste, e.g. through recycling, can be deemed to be no longer a waste. The Regulation provides for development of 'end-of-waste' criteria in accordance with the following conditions:**

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

In 2009, the European Commission prepared a technical report on proposals for end-of-waste criteria<sup>3</sup>. The report identifies the principles and methodology for defining end-of-waste criteria. The Commission is now preparing end-of-waste criteria for priority waste streams and end-of-waste criteria have been finalised for iron, steel and aluminum scrap. The Commission is at various stages in relation to other waste streams such as waste paper, copper, glass, biodegradable waste, waste derived fuels and aggregates. The Commission end-of-waste projects on biodegradable waste and waste derived fuels may provide end-of-waste criteria for wood in those contexts.

In the absence of end-of-waste criteria set at Community level, the EPA may decide on a case-by-case basis whether certain material has ceased to be waste and the EPA will consider proposals in this regard. Proposals for end-of-waste status must come from industry. The making of end-of-waste decisions will be a complex process for waste wood given the range of sources, types of contaminants that may be present, consideration of the intended end use(s) and the possible requirement to comply with Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

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<sup>3</sup> European Commission Joint Research Centre (2009) End of Waste Criteria Final Report  
<http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=2619>

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Proposals must be in accordance with guidance prepared by the European Commission which requires a comprehensive assessment with background data for the waste stream covering:

- ▼ material flows;
- ▼ potential uses;
- ▼ processes applied;
- ▼ relevant national and international legislation;
- ▼ quality assurance schemes;
- ▼ standards and end user specifications;
- ▼ present market and estimation/scenarios for its evolution; and
- ▼ environmental and health impact.

The proposed end-of-waste criteria must provide detailed criteria/controls relating to the following:

- ▼ input material;
- ▼ applied processes and techniques;
- ▼ product quality;
- ▼ potential applications; and
- ▼ quality control procedures.

The Commission must be notified under Directive 98/34/EC when Ireland sets end-of-waste criteria and scope exists for the Commission or other Member States to object.

The EPA considers that the development of end-of-waste criteria by industry for waste wood is desirable. While this is likely to be complex and may not be possible for all types of waste wood, it should, however be possible to develop end-of-waste criteria for certain waste woods, in particular pallet wood.

Further information is available at

<http://www.epa.ie/waste/wastereg/art28/>

## RECOVERY/DISPOSAL OF WASTE WOOD

**Typical options used for management of waste wood are the following:**

- ▼ use as fuel
- ▼ use in landscaping
- ▼ use as animal bedding
- ▼ use in composite pallet block manufacture
- ▼ use in particle board manufacture
- ▼ use in composting
- ▼ use as daily landfill cover
- ▼ disposal by landfill or incineration

The use of these options for the management of waste wood is only permissible where appropriate waste authorisation is in place. Some of these uses may not be acceptable, for example the use of waste wood as animal bedding or in landscaping.

The Waste Incineration Directive (WID) exempts certain wood waste from requiring WID authorisation when combusted, however waste or IPPC authorisation is still required. The WID exemption states:

*"Wood waste with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating, and which includes in particular such wood waste originating from construction and demolition waste".*

There are a number of elements to the WID exemption;

1. Demonstrating that waste wood is free of halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating.
2. Demonstrating the origin of the waste wood; for example waste wood received into a waste management facility for processing, may originate from multiple sources such as construction, municipal, commercial or other sectors. Once this wood is processed, it is generally mixed with various wood sources and other extraneous materials (chipped, segregated, baled etc) it can be moved from the waste management facility with the original origin of the waste wood not known.

The EPA has agreed with a number of operators a system that is WID compliant (in terms of being exempt from WID authorisation) for the use of certain recycled wood. However, it is considered that extensive use of waste wood as a fuel is an area requiring strict control. Agreement on the waste wood use will be on a case by case basis, where the operator must demonstrate to the Agency how compliance will be managed through, inter alia, characterisation, monitoring, segregation and supplier auditing.

Where waste wood is used to manufacture materials, these materials remain waste and subject to waste regulation unless end-of-waste criteria are in place and met.

## CONCLUSION

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**Waste wood is subject to regulatory control unless the material meets by-product or end-of-waste criteria. It must be managed in accordance with waste law and waste management facilities must hold the necessary authorisations.**



## An Gníomhaireacht um Chaomhnú Comhshaoil

Is í an Gníomhaireacht um Chaomhnú Comhshaoil (EPA) comhlactha reachtúil a chosnaíonn an comhshaoil do mhuintir na tíre go léir. Rialaímíd agus déanaimíd maoiriú ar ghníomhaíochtaí a d'fhéadfadh truailliú a chruthú murach sin. Cinntímid go bhfuil eolas cruinn ann ar threochtaí comhshaoil ionas go nglactar aon chéim is gá. Is iad na príomh-nithe a bhfuilimid gníomhach leo ná comhshaoil na hÉireann a chosaint agus cinntíú go bhfuil forbairt inbhuanaithe.

Is comhlacth poiblí neamhspleách í an Gníomhaireacht um Chaomhnú Comhshaoil (EPA) a bunaíodh i mí Iúil 1993 faoin Acht fán nGníomhaireacht um Chaomhnú Comhshaoil 1992. Ó thaobh an Rialtais, is í an Roinn Comhshaoil, Pobal agus Rialtais Áitiúil.

## ÁR bhFREAGRACHTAÍ

### CEADÚNÚ

Bíonn ceadúnais á n-eisiúint againn i gcomhair na nithe seo a leanas chun a chinntíú nach mbíonn astuithe uathu ag cur sláinte an phobail ná an comhshaoil i mbaol:

- áiseanna dramhaíola (m.sh., líonadh talún, loisceoirí, stáisiúin aistrithe dramhaíola);
- gníomhaíochtaí tionscláiocha ar scála mór (m.sh., déantúsaíocht cóbaisíochta, déantúsaíocht stroighne, stáisiúin chumhactha);
- diantalmhaíocht;
- úsáid faoi shrian agus scaoileadh smachtaithe Orgánach Géináthraithe (GMO);
- mór-áiseanna stórais peitreail.
- scardadh dramhuisce
- dumpáil mara

### FEIDHMIÚ COMHSHAOIL NÁISIÚNTA

- Stiúradh os cionn 1200 iniúchadh agus cigireacht de áiseanna a fuair ceadúnas ón nGníomhaireacht gach bliain.
- Maoiriú freagachtaí cosanta comhshaoil údarás áitiúla thar sé earnáil - aer, fuaim, dramhaíl, dramhuisce agus caighdeán uisce.
- Obair le húdaráis áitiúla agus leis na Gardáí chun stop a chur le gníomhaíocht mhídhleathach dramhaíola trí comhordú a dhéanamh ar líonra forfheidhmithe náisiúnta, díriú isteach ar chiontóirí, stiúradh fiosrúcháin agus maoiriú leigheas na bhfadhbanna.
- An dlí a chur orthu siúd a bhriseann dlí comhshaoil agus a dhéanann dochar don comhshaoil mar thoradh ar a ngníomhaíochtaí.

## MONATÓIREACHT, ANAILÍS AGUS TUAIRISCIÚ AR AN GCOMHSHAOIL

- Monatóireacht ar chaighdeán aer agus caighdeán aibhneacha, locha, uiscí taoide agus uiscí talaimh; leibhéal agus sruth aibhneacha a thomhas.
- Tuairisciú neamhspleách chun cabhrú le rialtais náisiúnta agus áitiúla cinntí a dhéanamh.

## RIALÚ ASTUITHE GÁIS CEAptha TEASA NA HÉIREANN

- Cainníochtú astuithe gáis ceaptha teasa na hÉireann i gcomhthléacs ár dtiomantas Kyoto.
- Cur i bhfeidhm na Treorach um Thrádáil Astuithe, a bhfuil baint aige le hos cionn 100 cuideachta atá ina mórghineadóirí dé-ocsaíd charbóin in Éirinn.

## TAIGHDE AGUS FORBAIRT COMHSHAOIL

- Taighde ar shaincheisteanna comhshaoil a chomhordú (cosúil le caighdeán aerí agus uisce, athrú aeráide, bithéagsúlacht, teicneolaíochtaí comhshaoil).

## MEASÚNÚ STRAITÉISEACH COMHSHAOIL

- Ag déanamh measúnú ar thionchar phleananna agus chláracha ar chomhshaoil na hÉireann (cosúil le pleannána bainistíochta dramhaíola agus forbartha).

## PLEANÁIL, OIDEACHAS AGUS TREOIR CHOMHSHAOIL

- Treoir a thabhairt don phobal agus do thionscal ar cheisteanna comhshaoil éagsúla (m.sh., iarratais ar cheadúnais, seachaint dramhaíola agus rialacháin comhshaoil).
- Eolas níos fearr ar an gcomhshaoil a scaipeadh (trí cláracha teilifíse comhshaoil agus pacáistí acmhainne do bhunscoileanna agus do mheánscoileanna).

## BAINISTÍOCHT DRAMHAÍOLA FHORGHNÍOMHACH

- Cur chun cinn seachaint agus laghdú dramhaíola trí comhordú An Chláir Náisiúnta um Chosc Dramhaíola, lena n-áirítear cur i bhfeidhm na dTionscnámh Freagrachta Táirgeoirí.
- Cur i bhfeidhm Rialachán ar nós na treoracha maidir le Trealamh Leictreach agus Leictreonach Caite agus le Srianadh Substaintí Guaiseacha agus substaintí a dhéanann ídiú ar an grios ózón.
- Plean Náisiúnta Bainistíocha um Dramhaíl Ghuaiseach a fhorbairt chun dramhaíl ghuaiseach a sheachaint agus a bhainistiú.

## STRUCHTÚR NA GNÍOMHAIREACHTA

Bunaíodh an Gníomhaireacht i 1993 chun comhshaoil na hÉireann a chosaint. Tá an eagraíocht á bhainistiú ag Bord Lánimseartha, ar a bhfuil Príomhstíúrthóir agus ceithre Stiúrthóir.

- Tá obair na Gníomhaireachta ar siúl trí ceithre Oifig:
- An Oifig Aeráide, Ceadúnaithe, Taighde agus Úsáide Acmhainní
- An Oifig um Fhorfheidhmiúchán Comhshaoil
- An Oifig um Measúnacht Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáide
- Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag ball air agus tagann siad le chéile cúpla uair in aghaidh na bliana le plé a dhéanamh ar cheisteanna ar ábhar imní iad agus le comhairle a thabhairt don Bhord.



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