Waste Wood Assessment Guidance for the UK Waste Wood Industry

July 2021

woodrecyclers.org

The Voice of the Waste Wood Industry

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1.0 Introduction

This guidance has been produced by the Wood Recyclers' Association (WRA) on behalf of the wider UK waste wood industry to help those involved in the collection and processing of waste wood. It will ensure that waste wood is properly classified at its origin and is processed into appropriate end markets. It also helps identify which waste wood items are hazardous in accordance with Technical Guidance WM3 and has been produced with the support of the Environment Agency (EA).

It includes a simple to use visual guide on various waste wood items that are likely to arise in the UK and confirms whether they are clean and untreated, treated and non-hazardous or treated and hazardous.

The WRA would like to extend their thanks to all those who have been involved in the Waste Wood Classification Project, which has culminated in this guidance and closely aligned guidance produced by the CIWM C&D Waste Forum for the construction and demolition sectors.

The key partners involved in this work are listed below:

ADEPT Association of Directors of Environment, Economy, Planning & Transport

Construction Demolition Waste Forum

CIWM

esa environmental services association

enva Wood Recycling

FCC Environment

LARAC

NFDC Industry Service Provider National Federation of Demolition Contractors Voice of the Global Demolition Industry

NAWDO National Association of Waste Disposal Officers

PLEVIN

rew

RWE

UROC Skip to Resources

VEOLIA

Wood Panel Industries Federation

WPA Wood Protection Association

1.1 Executive Summary of the Waste Wood Classification Project

Early in 2017, concerns were raised about the potential for mis-describing waste wood and confusion about which waste wood items were hazardous. The WRA was approached by the Environment Agency to lead a project on behalf of the wider waste wood industry to ensure that:

1. Waste wood is properly classified at its origin
2. Waste wood is not mis-described and is processed into appropriate end uses
3. There is a clear understanding of which items of waste wood are hazardous

Waste wood can be:

- Visibly clean and chemically untreated (WRA Grade A)
- Chemically treated, non-hazardous (WRA Grades B or C, depending on source and content)
- Or chemically treated and hazardous (WRA Grade D)

Further information on these grades can be seen in Table 4, WRA Grades of Waste Wood

It is difficult to identify chemical treatments which have been applied to wood as some are invisible to the naked eye. This guide therefore highlights which category each waste wood item fits into.

Although the majority of waste wood from mixed sources such as household waste recycling centres (HWRCs), demolition sites and skip operators/transfer stations is non hazardous, a small proportion is potentially hazardous and will need to be segregated and assessed in-line with this guidance and treated in accordance with table 4, WRA Grades of Waste Wood.

1.2 Summary of the Desk Based Research

The Waste Wood Classification (WWC) project began in the autumn of 2017 with the collection of desk-based research on treatments applied to waste wood items and whether they were likely to be hazardous or not.

The UK market for treated wood products can be split by application and 'Use Class'.

Table 1: Use Class and typical service situations

Use Class	Service Situation	Typical Service Situation	Examples
1	Above ground, covered. Permanently dry.	Internal, with no risk of wetting.	Floor boards, timber in internal partition walls, architraves, skirting, internal joinery including doors, frames, stairs and stair parts, furniture.
2	Above ground, covered. Occasional risk of wetting or insect attack.	Internal, with risk of wetting.	Roof timbers, tiling battens, frame timbers in timber frame houses, ground floor joists, sole plates (above dpc), timber joists in upper floors built into external walls.
3	Coated above ground, protected. Exposed to frequent wetting. Uncoated above ground not protected. Exposed to frequent wetting.	External, above damp-proof course (dpc) coated. External, above damp-proof course (dpc) uncoated.	External joinery including windows, doors, roof soffits and fascias, bargeboards, cladding etc. Fence rails and boards, agricultural timbers not in soil / manure contact and decking not in contact with the ground.
4	In contact with ground or fresh water. Permanently exposed to wetting.	Timbers in permanent contact with the ground or below dpc. Timbers in permanent contact with fresh water.	Fence posts, gravel boards, agricultural timbers in soil / manure, Earth-retaining walls, poles, sleepers, playground equipment, motorway & highway fencing and garden decking timbers that are in contact with the ground. Lock gates and revetments. Cooling tower packing (fresh water).

Softwood timber used for applications in use class 1 is unlikely to have been treated with a preservative, however softwood timber used for applications in use classes 2 to 4 is likely to have been preservative-treated. Hardwood timber used for any use class would not have been preservative-treated.

To meet European and British Standards on industrial wood protection, the preservatives in question will have been applied using an impregnation process designed to achieve a certain penetration and retention level in the wood, suited to the end use and decay profile to be encountered in service.

For each end use application, the wood will have been treated to a retention or loading of preservative in the treated zone designed to protect the wood against decay or insect attack for the notional design service life, typically 60 years within the building envelope (joists and framing), 30 years on the outside (e.g. cladding) and 15 years in ground contact (e.g. fence posts). These preservative loadings are formulation specific but are in the public domain.

The Wood Protection Association prepared an overview of preservative treatments which were most likely to have been used on softwood timbers since the 1950s:

Table 2: Formulation Types

Code	Appearance	Application	Biocides	Heading	Heading	Plus
A	green/brown	high pressure (HP)	Copper Carbonate	Arsenic		Chromium fixative
B	colourless	low pressure (LP)	TBTO	PCP	Dieldrin	
C	colourless	low pressure (LP)	TBTO		Dieldrin	
D	colourless	low pressure (LP)	TBTO	PCP	Lindane	
E	colourless	low pressure (LP)	TBTO		Lindane	
F	colourless	low pressure (LP)	TBTN		Permethrin	
G	colourless	low pressure (LP)	Propiconazole	Tebuconazole	Permethrin	
H	green/brown	high pressure (HP)	Copper Carbonate	Azoles	Quats	
I	green/brown	high pressure (HP)	Copper Carbonate	Azoles		Boron
J	green/brown	high pressure (HP)	Copper Carbonate	Cu-HDO		Boron
K	green/brown	high pressure (HP)	Copper Carbonate		Quats	Boron
L	green/brown	high pressure (HP)	Copper Carbonate	Azoles		
M	brown	high pressure (HP)	Creosote			

Key

Known hazardous waste stream | WM3 model assessment shows as non-hazardous | No WM3 assessment available

Table 3: Wood preservative treatment formulations at year of construction by use class

Year of Construction	INTERNAL	EXTERNAL coated	EXTERNAL uncoated/in ground	
	UC2	UC3	UC3 & 4	
1950 - 1977	A, B, C	B, C	A, M	
1978 - 1992	A, D, E	D, E	A, M	
1993 - 1995	A, F	F	A, M	
1996	A, F, G	G	A, M	
1997 - 2001	A, G	G	A, M	
2002	A, G, I, K	G	I, K	A, M
2003 - 2007	A, G, I, J, K	G	I, J, K	A, M
2008 - 2015	G, I, J, K	G	I, J, K	M
2016 onwards	G, H, J, L	G	H, J, L	M

The desk-based research of each waste wood item against this data, showed that only two items of household waste wood were of any concern – decking and fence posts. The same desk-based research also showed that for the demolition sector, it was structural timbers, roof tiling battens and external joinery from pre-2007 buildings that were of most concern and was where more evidence was required.

1.3 Summary of Testing/Sampling Work

From this evidence, detailed sampling/testing plans were developed in conjunction with the EA for the items of concern and large-scale laboratory testing of fence posts and decking from household sources and structural timbers, roof tiling battens and external joinery from pre-2007 buildings from demolition sources took place throughout 2019 and 2020.

This laboratory testing provided evidence that there were small amounts of hazardous content in fence posts and decking from the household stream (0.06%) and this was diminishing and is likely not to be there at all from 2023. It also proved that all construction and most demolition waste wood was non-hazardous. There is not yet enough evidence either way on the hazardous content of structural timbers, external joinery and tiling battens from pre-2007 buildings.

Full details of all testing/sampling can be found in a technical report that will be published separately.

1.4 Revised Regulatory Position Statements in Place From 1st August 2021

As a result of the evidence from the sampling/testing work, two new regulatory position statements (RPS) are in place for use in England.

RPS 249; Receiving hazardous waste wood at household waste recycling centres allows mixed waste wood collected at household waste recycling centres (HWRCs) to move as unassessed, non-hazardous material as long as it is destined for Industrial Emissions Directive (IED) Chapter IV compliant biomass or the manufacture of panel board. This RPS will remain in place until the end of March 2024 to give the waste wood industry the time to demonstrate that there is no longer any hazardous content in household waste wood. If it is still present, then those that wish to handle it will need to apply for a permit variation after that time.

RPS 250; Hazardous waste wood from demolition and refurbishment activities allows the collection and storing of potentially hazardous waste wood from domestic premises, demolition sites and other business premises and undertakings under existing environmental permits and also allows processing/blending under existing environmental permits.

Hazardous waste wood from demolition sites and other business premises and undertakings, must be identified, segregated and consigned under List of Waste code 17 02 04*.

Transfer stations/skip operators receiving hazardous waste wood should sort, segregate and consign that wood under List of Waste code 17 02 04* or 20 01 37*. If segregation is not practical, mixed hazardous and non-hazardous waste wood can be dual coded and consigned under List of Waste codes 17 02 04* and 17 02 01 or 20 01 37* and 20 01 38 . An estimate of the percentage of hazardous waste wood should be included on that consignment note to ensure an accurate and realistic volume is recorded.

Waste wood processors that chip or shred waste wood can mix and blend hazardous and non-hazardous waste wood and continue to move that mixed processed material which is below hazardous waste thresholds set out in the Hazardous Waste Technical Guidance (Waste Management 3). The mixed material may be moved from waste wood processing sites as non-hazardous under a waste transfer note List of waste code 19 12 07 as long as it is destined for Industrial Emissions Directive (IED) Chapter IV compliant biomass or the manufacture of panel board.

The wood types recoded in Table 4; WRA Grades of Waste Wood. Grade D referenced in the typical sources and typical materials section is excluded from this RPS.

Those operators who need to use this RPS should have written systems and procedures in place to demonstrate you have followed this guidance and assessed waste wood correctly.

This RPS will remain in place until the end of August 2023 to allow further time to understand the quantities and types of hazardous waste wood arising from demolition activities and to allow those that want to apply for permit variations to accept hazardous waste wood.

2.0 Overview of the UK Waste Wood Market

The UK's waste wood industry remained buoyant in 2020 in spite of wood collected being down by circa 10% at 4.05 million tonnes compared to the usual 4.5 million tonnes. This is attributed to the impact of the closure of HWRCs during the first Covid-related lockdown, combined with reduced commercial activity for part of the year.

Over 3.81 million tonnes of waste wood was processed in 2020 with 2.42 million tonnes going to Chapter IV biomass, 982 k tonnes going to panel board manufacture, 350 k tonnes into animal bedding, equine surfacing, reuse and other recycling and 55 k tonnes going into small-scale biomass. Exports were 92 k tonnes and imports were 82 k tonnes.

2021 is likely to see waste wood collected figures back up at normal levels after a summer and autumn of DIY projects and there are well developed markets for all types of waste wood, including lower grade and mixed waste wood.

The WRA is forecasting that in 2021, 2.7 million tonnes of waste wood will be consumed by Chapter IV compliant biomass facilities, a steady growth on previous years towards the three million tonnes of capacity these facilities will provide once the newer plants are fully operational. In addition one million tonnes will go to panel board manufacture, 500,000 tonnes of clean untreated material will go for animal bedding and other high-value recycling, and small-scale biomass and re-use will continue to grow. There will still be a small amount of export, but the UK is likely to become a net importer of waste wood as domestic demand for material increases during the next few years.

2.1 The Waste Hierarchy and Waste Wood Grades / Types

The WRA supports the waste hierarchy and there are many examples of waste wood supporting this concept and the greater aims of the Circular Economy. However, the source and type of waste wood dictates the appropriate end destination. The following chart shows the WRA grading system and which grades are clean/untreated, treated but non-hazardous and treated and hazardous.

Table 4: WRA Grades of Waste Wood

GRADE	Typical Markets	Typical Sources of raw material for recycling	Typical Materials	Typical non-wood content prior to processing	Notes
GRADE A Pre-Consumer Waste Wood (*1) and untreated wooden packaging = Clean un-treated	A feedstock for the manufacture of professional and consumer products such as animal bedding, equine and landscaping surfacing. May also be used as a fuel in domestic and non-IED Chapter IV biomass installations and for the manufacture of pellets and briquettes.	Wood Product Manufacturing, Distribution, Retailing, Packaging and Secondary manufacture, e.g. joinery and pallet reclamation.	Solid softwood and hardwood. Packaging waste, scrap pallets, packing cases and cable drums. Process off-cuts from the manufacture of virgin/sawn timber and untreated board products.	Nails and metal fixings. Small amounts of non-hazardous surface coatings such as water- soluble paint.	This is a waste as defined by the waste regulations. Does not require an IED Chapter IV installation and should not contain any treated or low-grade material.
GRADE B Business waste wood = Treated Non-hazardous	This is the preferred feedstock for industrial wood processing operations such as the manufacture of panel board products. Can also be used for IED Chapter IV biomass.	As Grade A, plus construction and demolition operations, skip operators, transfer stations.	May contain Grade A material as above plus building and demolition materials and domestic furniture made from solid wood.	Nails and metal fixings. Some paints, plastics, glass, grit, non-hazardous coatings, binders and glues. Limits on treated or coated materials as defined by end users and IED.	This is mostly solid wood. Some feedstock specifications contain a 5% to 10% limit on former panel products such as chipboard, MDF and plywood. Is a waste for the requirements of Waste Management Regulations. Will require an IED Chapter IV compliant installation for biomass.
GRADE C Municipal waste wood = Treated Non-hazardous	For use in the IED Chapter IV biomass installations and for panel board in controlled volumes.	All above plus municipal collections, transfer stations and HWRCs.	All of the above plus flat pack furniture made from board products and DIY materials.	Nails and metal fixings. Paints, non-hazardous coatings and glues, paper, plastics and rubber, glass, grit. Coated and treated timber (non CCA or creosote).	This is mostly board products. Mainly suitable for IED Chapter IV compliant biomass installations, but also suitable for panel board manufacture with correct processing and blending. Is a waste for Waste Management Regulations.
GRADE D Hazardous waste wood = Treated hazardous	Requires disposal at facilities licensed to accept hazardous waste.	All of the above plus;- • Waste wood from hydraulic engineering, such as wood from docks. • Waste wood from industrial applications such as cooling tower timbers, woodblock flooring or moulds • Waste wood from boats, carriages and trailer beds • Waste wood treated with creosote	Agricultural fencing, telegraph poles, railway sleepers	Copper chrome arsenic (CCA) preservation treatments and creosote.	These materials must be segregated and consigned as hazardous to sites permitted to accept hazardous wood.

[1] Pre-consumer waste wood is waste wood material created during the manufacturing process of virgin wood products, not involving the application of treatments, e.g. offcuts or trimmings from virgin/sawn timber. It is also waste wood material created during the manufacturing process of raw, untreated board products such as panel board, MDF and plywood (for clarity, this waste wood can only be used/burnt at source). Waste from joinery activity using these untreated wood materials is also included in this definition.

Source: The Wood Recyclers' Association July 2021

3.0 Categories of Waste Wood

This Section identifies typical waste wood items that are likely to arise from household, commercial, industrial, construction/demolition and agricultural sources and based on the evidence from both desk research and the in-depth testing/sampling work is classified as:

- Grade A (clean, untreated)
- Grade B (Treated and non-hazardous)
- Grade C (Treated and non-hazardous) and
- Grade D (Hazardous).

3.1 External Household Waste Wood Items

3.1.1 Barge Boards, Fascias and Soffits

Description	Barge Boards, Fascias and Soffits
Waste Code:	170201, 191206 or 200137 depending on source (if assessed and confirmed non-haz) or 170204*, 191206* or 200137* depending on source (if unassessed or confirmed hazardous through testing in line with the C&D Waste Wood Guide.)
Hazardous Properties	N/A or dependent on treatment must be tested and assessed under Technical Guidance WM3.
Classification/ Grade	Potentially Hazardous Grade B or C depending on source. Moves under RPS 250
Guidance	• Softwood timber components produced prior to 1950, and hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, so these components should be deemed Non-hazardous. • Softwood timber components produced between 1950 and 2007 are likely to have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained • Softwood timber components produced from 2008 onwards are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these components should be deemed Non-hazardous

3.1.2 External Cladding

Description	Machined softwood cladding (coated), Machined hardwood cladding (coated and uncoated), Waney edge cladding.
Waste Code:	170201, 191207 or 200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Treated, non-hazardous Grade B or C depending on source
Guidance	• Both hardwood and softwood components are unlikely to have been treated with preservatives during manufacture, so they should be deemed Non-hazardous.

3.1.3 External Joinery

Description	External Joinery (windows, conservatories)
Waste Code:	170201, 191206 or 200137 (if assessed and confirmed non-haz) depending on source or 170204*, 191206* or 200137* (if unassessed or (if unassessed or confirmed hazardous through testing in line with the C&D Waste Wood Guide.) depending on source
Hazardous Properties	N/A or dependent on treatment must be tested and assessed under Technical Guidance WM3
Classification/ Grade	Potentially Hazardous Grade B or C depending on source, moves under RPS 250
Guidance	• Softwood timber components produced prior to 1950, and hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, so these components should be deemed Non-hazardous • Softwood timber components produced between 1950 and 2007 are likely to have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained. • Softwood timber components produced from 2008 onwards are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these components should be deemed Non-hazardous

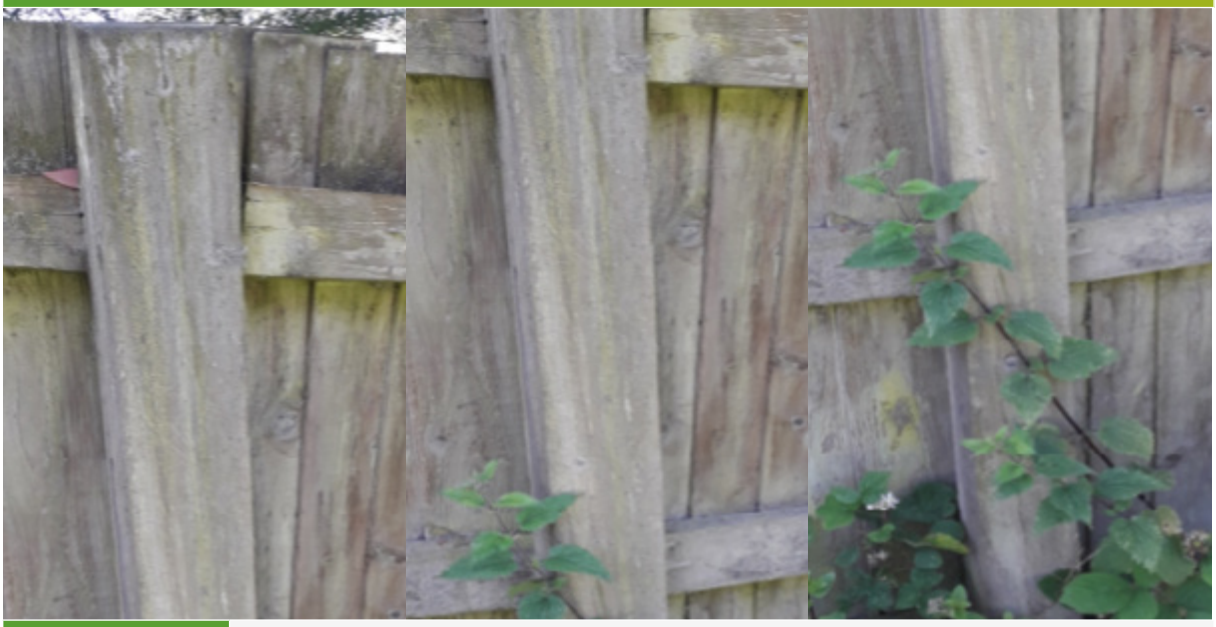
3.1.4 External Doors

Description	External Doors
Waste Code:	170201, 191206 or 200137 (if assessed and confirmed non-haz) depending on source (or 170204*, 191206* or 200137* (if unassessed or confirmed hazardous through testing in line with the C&D Waste Wood Guide.) depending on source
Hazardous Properties	N/A or Tdependent on treatment must be tested and assessed under Technical Guidance WM3
Classification/ Grade	Potentially Hazardous Grade B or C depending on source. Moves under RPS 250
Guidance	• Softwood timber components produced prior to 1950, and hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, so these components should be deemed Non-hazardous • Softwood timber components produced between 1950 and 2007 are likely to have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained. • Softwood timber components produced from 2008 onwards are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these components should be deemed Non-hazardous

3.1.5 Decking

Description	Decking
Waste Code:	170201/191207/200138 (if assessed and confirmed non-haz) depending on source or 170204*/191207*/200138* (if unassessed or confirmed hazardous through testing in line with the C&D Waste Wood Guide.) depending on source
Hazardous Properties	N/A or Copper Arsenate (CCA) Treated Wood: HP7 Carcinogenic, HP14 Ecotoxic. Creosote treated wood: HP4 Irritant, HP5 Specific Target Organ Toxicity, HP7 Carcinogenic, HP10 Toxic for reproduction, HP13 Sensitising, HP14 Ecotoxic.
Classification/ Grade	Potentially hazardous (Grade B or C depending on source)
Guidance	• If arises at HWRCS, moves in accordance with RPS 249 • If arises from demolition/refurbishment then RPS 250 • Hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, so these components should be deemed Non-hazardous • Softwood timber components produced prior to 2007 are likely to have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained. • Softwood timber components produced from 2008 onwards are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these components should be deemed Non-hazardous. • Softwood and hardwood components from any era may have been recoated with creosote. If this is found to be the case these components should be deemed Hazardous.

3.1.6 Fence Posts

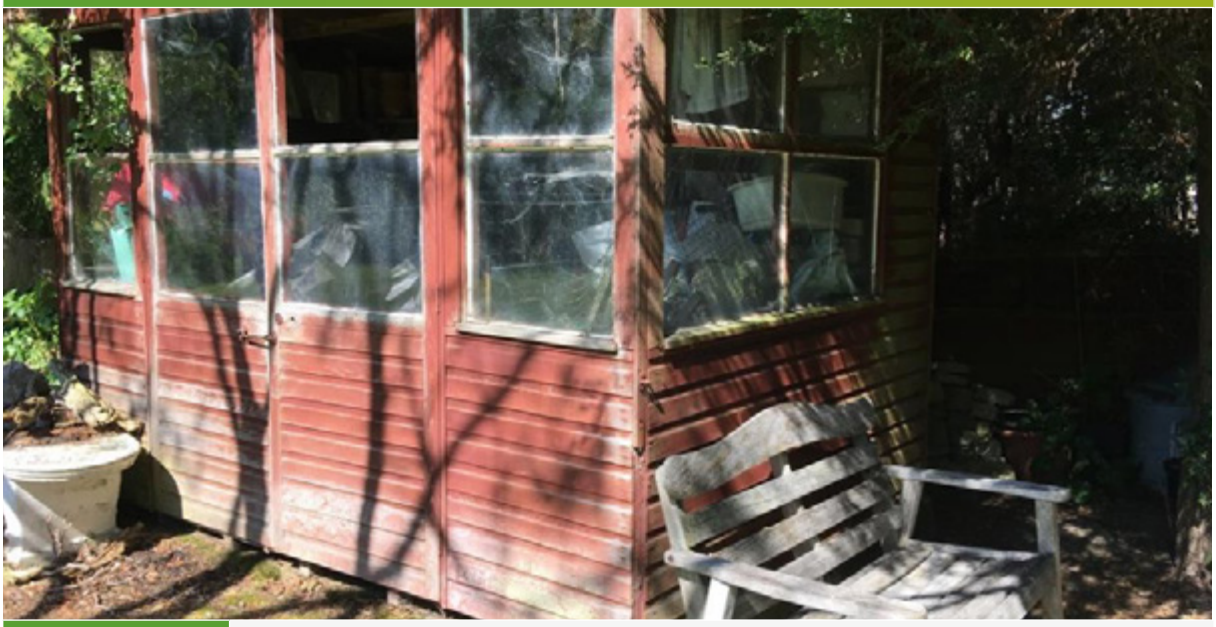


Description	Fence Posts
Waste Code:	170201/191207/200138 (if assessed and confirmed non-haz) depending on source or 170204*/191207*/200138* * (if unassessed or confirmed hazardous through testing in line with the C&D Waste Wood Guide.)
Hazardous Properties	N/A or or Chromated Copper Arsenate (CCA) Treated Wood: HP7 Carcinogenic, HP14 Ecotoxic. Creosote treated wood: HP4 Irritant, HP5 Specific Target Organ Toxicity, HP7 Carcinogenic, HP10 Toxic for Reproduction, HP13 Sensitising, HP14 Ecotoxic.
Classification/ Grade	Potentially hazardous (Grade B or C depending on source).
Guidance	• If arises at HWRCS, moves in accordance with RPS 249 • If arises from demolition/refurbishment then RPS 250 • Hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, so these components should be deemed Non-hazardous. • Softwood timber components produced prior to 2007 are likely to have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained • Softwood timber components produced from 2008 onwards are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these components should be deemed Non-hazardous. • Softwood and hardwood components from any era may have been recoated with creosote. If this is found to be the case these components should be deemed Hazardous.

3.1.7 Fence Panels

Description	Fence Panels
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Treated, non-hazardous. Grade B or C depending on source
Guidance	• Softwood fence panels from any era, and softwood fence posts and other components produced from 2008 onwards, are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these components should be deemed Non-hazardous.

3.1.8 Garden Products



Description	Garden Products (Furniture, Tables, Pergolas, Sheds)
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Treated, non-hazardous. Grade B or C depending on source
Guidance	• Hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, so these components should be deemed Non-hazardous. • Softwood timber components produced prior to 1950, and hardwood timber components from any era are only, likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these components should be deemed Non-hazardous.

3.2 Internal Household Waste Wood Items

3.2.1 Roof Timbers

Description	Roof trusses, Pitched roof rafters, Purlins, Ceiling joists, Flat roof joists, Firrings, Upstands
Waste Code:	170201, 191207 or 200138 (if assessed and confirmed non-haz) depending on source or 1702 04* , 191207* or 200138* (if unassessed or confirmed hazardous through testing in line with the C&D Waste Wood Guide.)
Hazardous Properties	N/A or Chromated Copper Arsenate (CCA) Treated Wood: HP7 Carcinogenic, HP14 Ecotoxic
Classification/ Grade	Potentially hazardous, Grade B or C, depending on source. Moves under RPS 250
Guidance	• Softwood timber components produced prior to 1950, and hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, so these components should be deemed Non-hazardous. • Softwood timber components produced between 1950 and 2007 are likely to have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained. • Softwood timber components produced from 2008 onwards are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these components should be deemed Non-hazardous

3.2.2 Tiling and Cladding Battens

Description	Roof tiling and cladding battens, sarking boarding
Waste Code:	170201, 191207 or 200138 (if assessed and confirmed non-haz) depending on source or 1702 04* , 191207* or 200138* (if unassessed or confirmed hazardous through testing in line with the C&D Waste Wood Guide.)
Hazardous Properties	Chromated Copper Arsenate (CCA) Treated Wood: HP7 Carcinogenic, HP14 Ecotoxic
Classification/ Grade	Treated, non-hazardous. Grade B or C depending on source
Guidance	• Potentially hazardous, Grade B or C, depending on source. Moves under RPS 250 • Softwood timber components produced prior to 1950, and hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, so these components should be deemed Non-hazardous. • Softwood timber components produced between 1950 and 2007 are likely to have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained. • Softwood timber components produced from 2008 onwards are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these components should be deemed Non-hazardous.

3.2.3 Timber Frame Components

Description	Sole plates, Structural timber frame components, Ground and upper floor joists (including strutting)
Waste Code:	170201, 191207 or 200138 (if assessed and confirmed non-haz) depending on source or 1702 04* , 191207* or 200138* (if unassessed or confirmed hazardous through testing in line with the C&D Waste Wood Guide.)
Hazardous Properties	N/A or Chromated Copper Arsenate (CCA) Treated Wood: HP7 Carcinogenic, HP14 Ecotoxic
Classification/ Grade	Potentially hazardous, Grade B or C, depending on source. Moves under RPS 250
Guidance	• Softwood timber components produced prior to 1950, and hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, so these should be deemed Non-hazardous. • Softwood timber components produced between 1950 and 2007 are likely to have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained. • Softwood timber components produced from 2008 onwards are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these should be deemed Non-hazardous.

3.2.4 Frame Sheathing

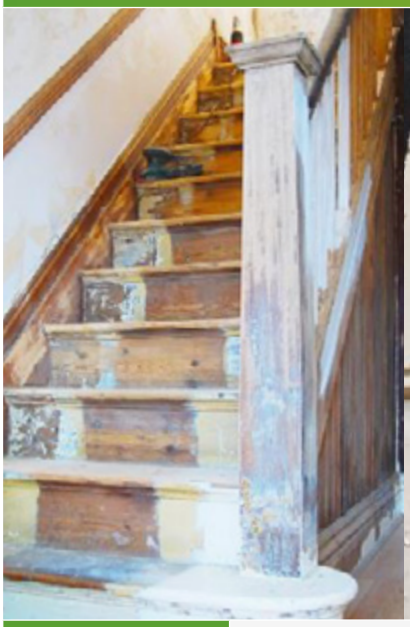
Description	Plywood, Orientated Strand Board (OSB)
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Treated, non-hazardous. Grade B or C depending on source
Guidance	• These components are unlikely to have been treated with preservatives during manufacture, so they should be deemed Non-hazardous.

3.2.5 Internal Doors and Frames



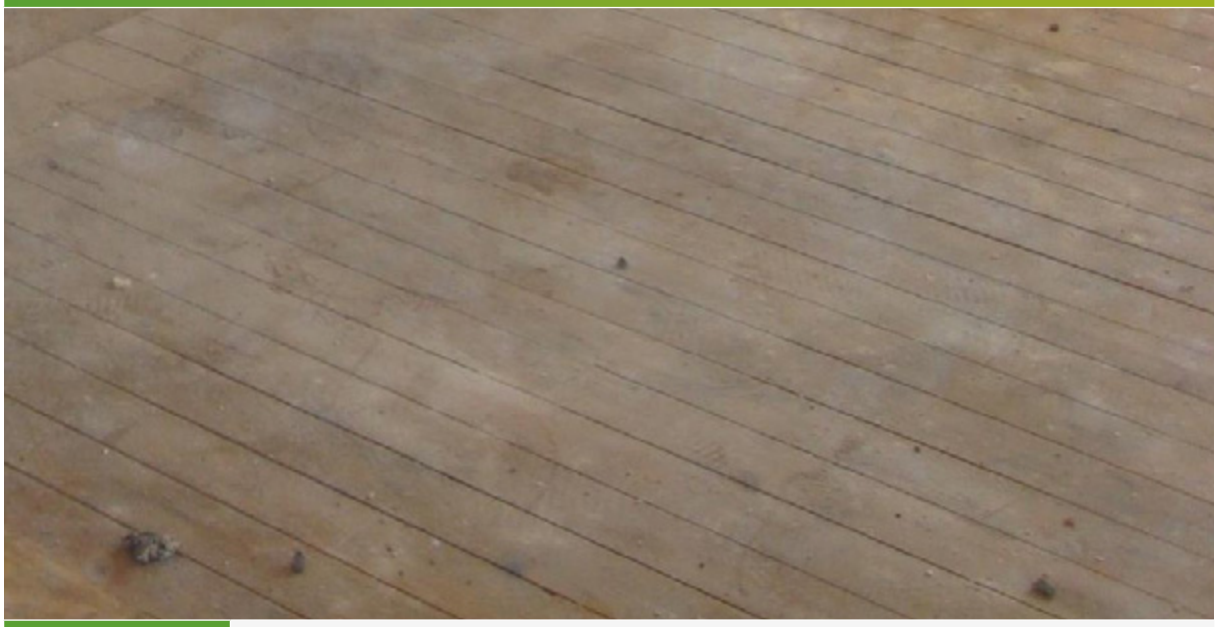
Description	Doors, Door linings, Architraves, Threshold strips, Glazing beads.
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Treated, non-hazardous. Grade B or C depending on source
Guidance	• Both hardwood and softwood components are unlikely to have been treated with preservatives during manufacture, so they should be deemed Non-hazardous

3.2.6 Stairs, Skirtings and Dados



Description	Stringers, Treads and Risers, Newel Posts, Handrails, Spindles and Balusters, skirtings, dados and picture rails.
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Treated, non-hazardous. Grade B or C depending on source
Guidance	• Both hardwood and softwood components are unlikely to have been treated with preservatives during manufacture, so they should be deemed Non-hazardous. May have coatings on them.

3.2.7 Floor Boards and Shuttering Boards



Description	Square edged or tongued and grooved softwood and hardwood floorboards, Chipboard flooring, Plywood, Orientated strand boarding (OSB).
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Clean, un-treated, Grade A
Guidance	• Both hardwood and softwood components are unlikely to have been treated with preservatives during manufacture, so they should be deemed Non-hazardous.

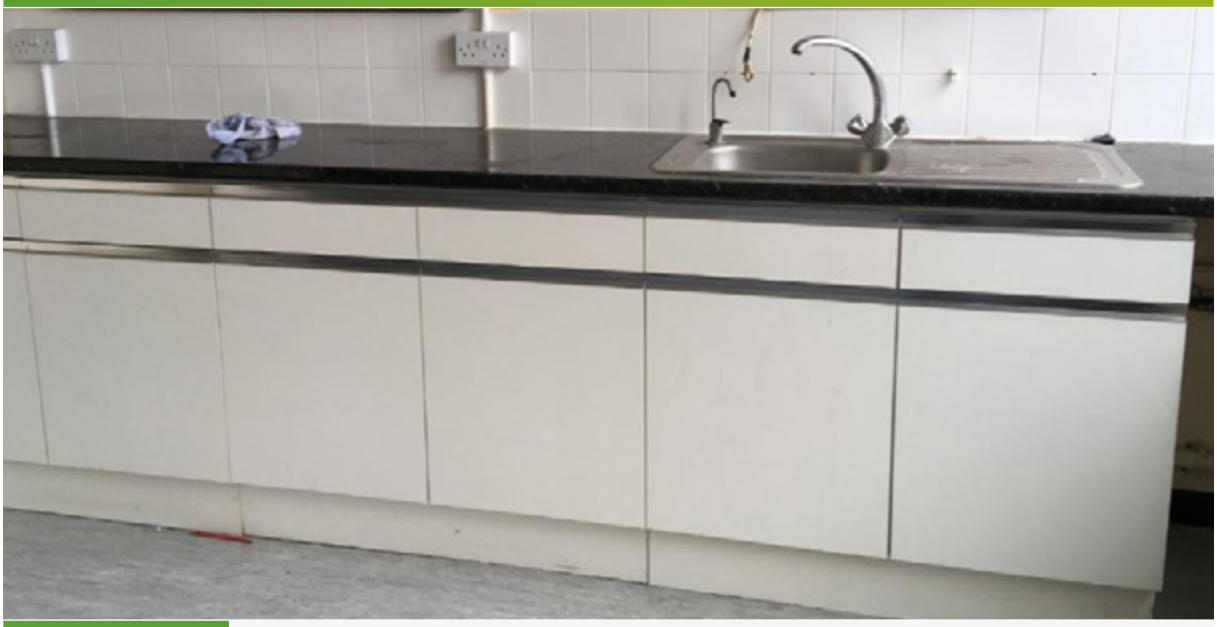
3.2.8 Ornamental Beams

Description	Solid timber either softwood or hardwood
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Clean, untreated. Grade A
Guidance	• Likely to be untreated, unless painted.

3.2.9 Furniture/Kitchens – Natural Wood

Description	Kitchens, worktops, drawers, tables, wardrobes etc
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Clean, untreated,. Grade A unless coated then Treated, non-hazardous Grade B or C depending on source
Guidance	• Likely to be untreated unless coated or veneered.

3.2.10 Furniture/Kitchens – Painted, coated, lacquered with PVC



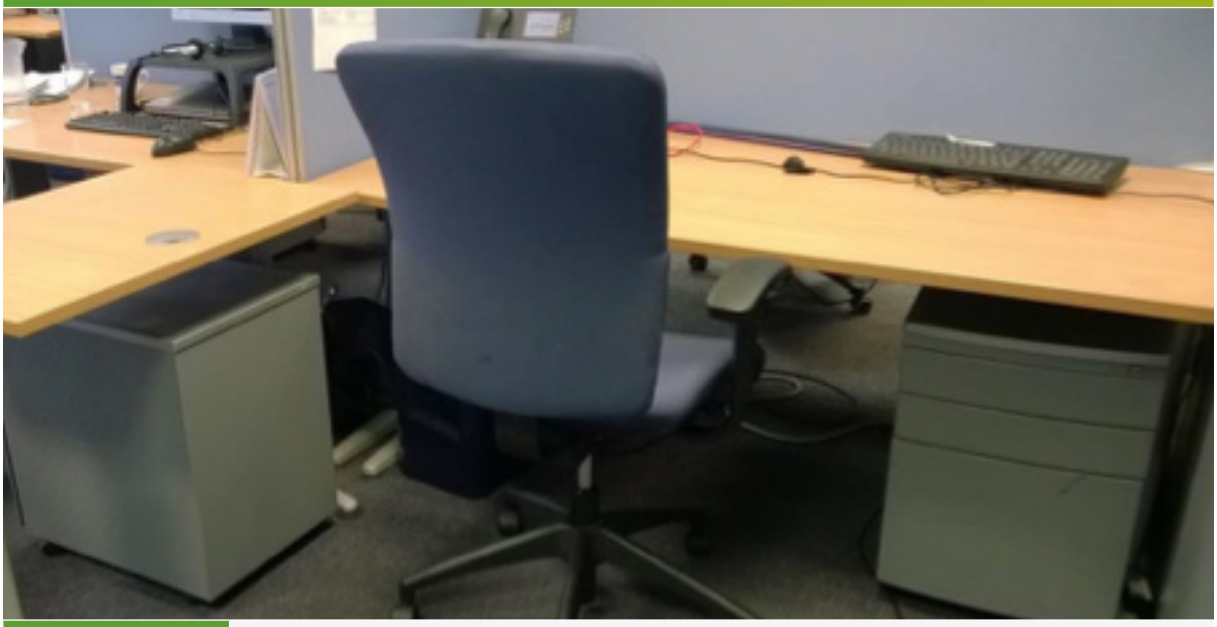
Description	Kitchens, worktops, drawers, tables, wardrobes etc
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Treated, non-hazardous. Grade C
Guidance	• Hardwood, softwood and sheet material components are unlikely to have been treated with preservatives during manufacture, so they should be deemed Non-hazardous

3.3 Office Refurbishment Waste Wood Items

3.3.1 Furniture/Kitchens – Natural Wood

Description	Shelving units, worktops, drawers, desks, tables, wardrobes etc
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Clean, untreated,. Grade A unless coated then Treated, non-hazardous Grade B or C depending on source
Guidance	• Likely to be untreated unless coated or veneered.

3.3.2 Furniture/Kitchens – Painted, coated, lacquered with PVC



Description	Shelving units, worktops, drawers, desks, tables, wardrobes etc
Waste Code:	170201/191207/200138 depending on source
Hazardous Properties	N/A
Classification/ Grade	Treated, non-hazardous. Grade C
Guidance	• Hardwood, softwood and sheet material components are unlikely to have been treated with preservatives during manufacture, so they should be deemed Non-hazardous

3.4 Commercial Waste Wood Items

3.4.1 Pallets, Transport Boxes

Description	Pallets and wooden packaging
Waste Code:	150103 or 150110*
Hazardous Properties	N/A or Methyl Bromide: HP4 Irritant, HP5 Specific target organ toxicity, HP6 Acute Toxicity, HP11 Mutagenic, HP14 Ecotoxic
Classification/ Grade	Clean, untreated or Treated and hazardous. Grade A or Grade D.
Guidance	• Wooden packaging and pallets manufactured in the EU are unlikely to have been subject to any form of non-visible treatment other than being kiln dried. • However, pallets and packing cases arising from outside of the EU may have been treated for biosecurity purposes. • The following codes are used alongside the IPPC logo (see inset) to identify the treatment used: DB – Debarked; HT – Heat Treated; MB – Methyl Bromide (Hazardous) – Being used less and less following the Montreal Protocol • It is highly unlikely that wooden packaging and pallets marked with DBHT , or without any markings, would have been treated with preservatives during manufacture, so these should be deemed Non-hazardous. • Closed Loop Pallets – CHEP (Blue), LPR (Red) IPP (Brown) – The various paints are all water based. These pallets remain the property of the relevant company at all times. If a business accumulates these pallets they can advise the relevant pooling company and they will uplift and reimburse the company for the pallets.

3.4.2 / 3.4.3 Cable Drums before and after 1989	
	
Description	Cable Drums
Waste Code:	150103 or 150110*
Hazardous Properties	N/A or Chromated Copper Arsenate (CCA) Treated Wood: **HP7** Carcinogenic, HP14 Ecotoxic
Classification/ Grade	Clean, untreated or Treated and hazardous. Grade A or Grade D.
Guidance	• Hardwood cable drums are unlikely to have been treated with preservatives during manufacture, so these components should be deemed Non-hazardous. • Softwood cable drums produced prior to 1989 are likely to have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous. However, the majority of these cable drums are likely to have been taken out of service by now. • Softwood cable drums produced from 1989 onwards are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, so these components should be deemed Non-hazardous.

3.4.4 Woodworking Offcuts

Description	Also known as pre-consumer waste wood, which is material created during the manufacturing process of virgin wood products, not involving the application of treatments, e.g. offcuts or trimmings from virgin/sawn timber. It is also waste wood material created during the manufacturing process of raw, untreated board products such as panel board, MDF and plywood. Waste from joinery activity using these untreated wood materials is also included in this definition.
Waste Code:	030105
Hazardous Properties	N/A
Classification/ Grade	Clean, untreated. Grade A.
Guidance	

3.4.4 Woodworking Offcuts With Treatment

Description	Material created during the manufacturing process of virgin wood products and/or board products, involving the application of treatments. Waste from joinery activity using these treated wood materials is also included in this definition.
Waste Code:	030105
Hazardous Properties	N/A
Classification/ Grade	Treated but non-hazardous. Grade B or Grade C.
Guidance	

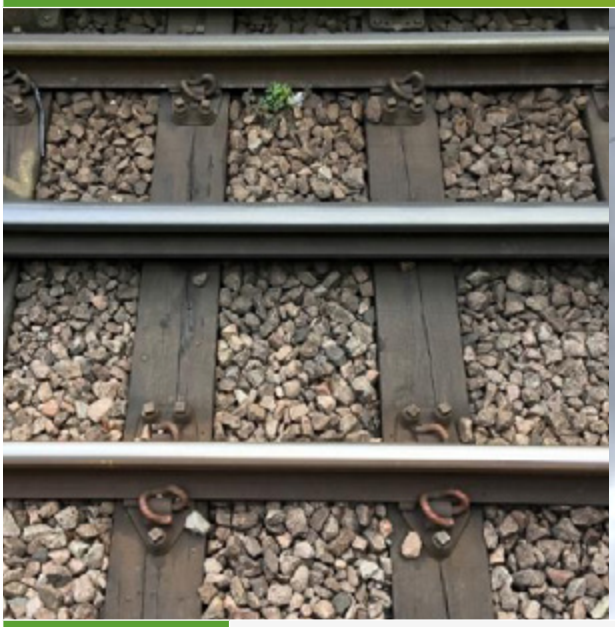
3.5 Agricultural Waste Wood Items

3.5.1 Impregnated Wood from Farming

Description	Rail and post fencing and other items used on farms.
Waste Code:	170201, 191207 (if assessed and confirmed non-hazardous) or 170204*, 191207* (if unassessed or confirmed hazardous through testing in line with C&D Waste Wood Guide.)
Hazardous Properties	Chromated Copper Arsenate (CCA) Treated Wood: HP7 Carcinogenic, HP14 Ecotoxic. Creosote treated wood: HP4 Irritant, HP5 Specific Target Organ Toxicity, HP7 Carcinogenic, HP10 Toxic for Reproduction, HP13 Sensitising, HP14 Ecotoxic.
Classification/ Grade	Treated and non-hazardous Grade B or Treated and hazardous Grade D.
Guidance	• Softwood and hardwood components from any era are likely to have been treated with creosote, therefore these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained.

3.6 Industrial Waste Wood Items

3.6.1 / 3.6.2 Telegraph Poles and Railway Sleepers



Description	Waste railway sleepers and telegraph poles.
Waste Code:	170204*
Hazardous Properties	Creosote treated wood: **HP4** Irritant, **HP5** Specific Target Organ Toxicity, **HP7** Carcinogenic, **HP10** Toxic for Reproduction, **HP13** Sensitising, **HP14** Ecotoxic.
Classification/ Grade	Treated and hazardous. Grade D.
Guidance	• Softwood and hardwood components from any era are likely to have been treated with creosote, therefore these components should be deemed Hazardous.

3.6.3 Waste Wood from Industrial Applications

Description	Cooling towers, workshop floors and wood from hydraulic engineering – load-bearing posts and walls
Waste Code:	170204*
Hazardous Properties	Chromated Copper Arsenate (CCA) Treated Wood: **HP7** Carcinogenic, **HP14** Ecotoxic.
Classification/ Grade	Treated and hazardous. Grade D.
Guidance	• Softwood timber components produced prior to 1950, and hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, however they are likely to have been contaminated with other hazardous substances in quantities above the WM3 hazardous threshold during use, so these components should be deemed Hazardous unless evidence confirming otherwise is obtained. • Softwood timber components produced between 1950 and 2007 are likely to have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture and are likely to have been contaminated with other hazardous substances in quantities above the WM3 hazardous threshold during use, so these components should be deemed Hazardous unless evidence confirming otherwise is obtained. • Softwood timber components produced from 2008 onwards are likely to have been treated with preservatives that contained hazardous substances in quantities below the WM3 hazardous threshold during manufacture, however they are likely to have been contaminated with other hazardous substances in quantities above the WM3 hazardous threshold during use, so these components should be deemed Hazardous unless evidence confirming otherwise is obtained.

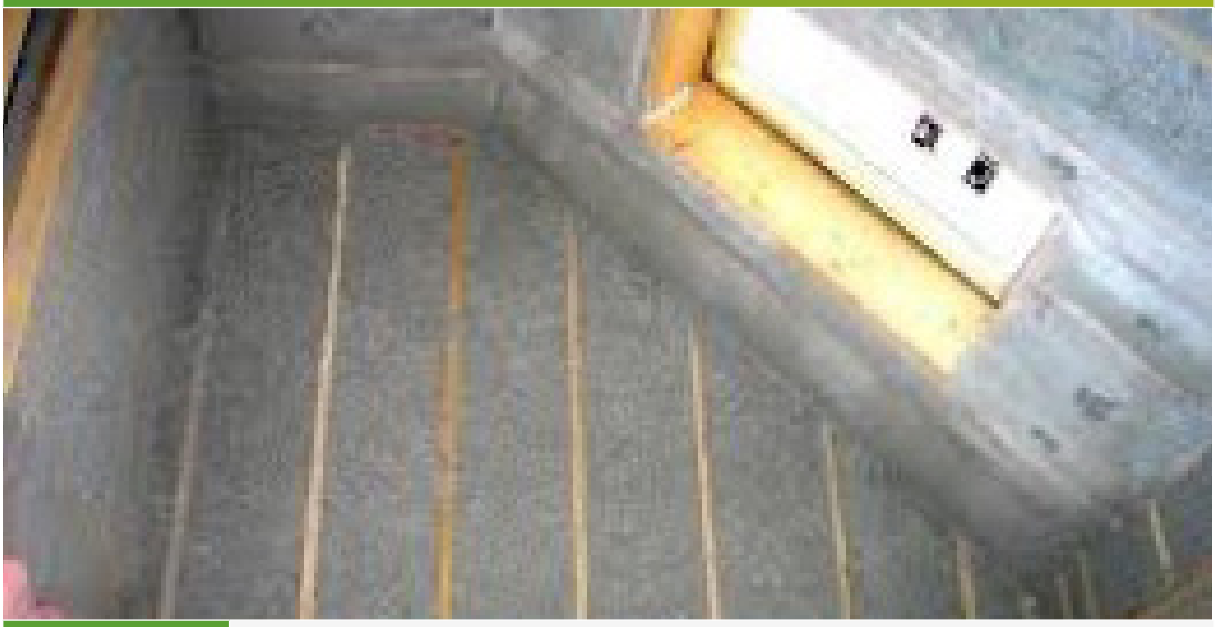
3.6.4 Waste Wood from Boats and Wagons

Description	Waste wood from old boats and wagons
Waste Code:	170204*
Hazardous Properties	Chromated Copper Arsenate (CCA) treated wood; **HP7** Carcinogenic, **HP14** Ecotoxic as well as contamination for the use or leakage of chemicals, oils, liquids. Creosote treated wood: **HP4** Irritant, **HP5** Specific Target Organ Toxicity, **HP7** Carcinogenic, **HP10** Toxic for Reproduction, **HP13** Sensitising, **HP14** Ecotoxic.
Classification/ Grade	Treated and hazardous. Grade D.
Guidance	• Softwood and hardwood components from any era are likely to have been treated therefore these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained.

3.6.5 Special Arisings

Description	Foundry moulds etc
Waste Code:	170204*
Hazardous Properties	Highly likely to be treated and hazardous. WM3 assessment and tests results will confirm hazardous properties.
Classification/ Grade	Treated and hazardous. Grade D.
Guidance	• Softwood and hardwood components from any era are likely to have been treated therefore these components should be deemed Hazardous unless independent laboratory test evidence confirming otherwise is obtained.

3.6.6 Insulation/sound protection Panels



Description	Panels treated with PCBs
Waste Code:	170203*
Hazardous Properties	As WM3 assessment and tests results
Classification/ Grade	Treated and hazardous. Grade D.
Guidance	

4.0 Index of Abbreviations

ADEPT - Association of Directors of Environmental, Economy, Planning & Transport
C&D - Construction & Demolition
CCA - Copper Chrome Arsenate
CIWM - Chartered Institution of Wastes Management
DB - Debarked
DIY - Do It Yourself
DPC - Damp Proof Course
EA - Environment Agency
ESA - Environmental Services Association
HP4, 5, 6, 7, 13 & 14 - Hazardous Property Codes
HT - Heat Treated
HWRC - Household Waste Recycling Centre
IED - Industrial Emissions Directive
IPPC - Pallet logo representing International Plant Protection Convention
LARAC - Local Authority Recycling Advisory Committee
LP & HP - Low Pressure & High Pressure
MB - Methyl Bromide
MDF - Medium Density Fibreboard
NAWDO - National Association of Waste Disposal Officers
NFDC - National Federation of Demolition Contractors
NIEA - Northern Ireland Environment Agency
NRW - Natural Resources Wales
OSB - Orientated Strand Board
PCP - Pentachlorophenol
PVC - Polyvinyl Chloride
REW - Resource Efficiency Wales
RPS - Regulatory Position Statement
SEPA - Scottish Environment Protection Agency
TBTN - Tributyltin Napthenate
TBTO - Tributyltin Oxide
Treated with PCB's - Polychlorinated Biphenyl
UC2, 3 & 4 - Use Class Codes
UK - United Kingdom
UROC - United Resource Operators Consortium
WM3 - Hazardous Waste Technical Guidance – Waste Management 3
WPA - Wood Protection Association
WPIF - Wood Panel Industries Federation
WRA - Wood Recyclers' Association
WWC - Waste Wood Classification

Special Mentions

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