



**CIWM Construction,
Demolition and
Excavation Technical
Advisory Group**

Waste Wood Assessment Guidance for the Construction and Demolition Sectors

Version 1.3 - Jan 2024



Contents

0.0 Introduction	3
0.1 Objectives of the Waste Wood Classification Project	4
0.2 Is Your Wood Waste?	4
0.3 Timber Use Classes and Preservative Treatments	5
0.4 Waste Wood Flow Chart	7
0.5 Waste Wood Sample Testing	9
0.6 Wood Recycling Grades	10
1.0 Structural Timbers	12
1.1 Timber Frame	12
1.2 Wall and Roof Sheathing	13
1.3 Roof Timbers	14
1.4 Tiling & Cladding Battens	15
1.5 Engineered Timber	16
2.0 External Joinery	17
2.1 Doors and Door Frames	17
2.2 Windows and Window Frames (Including Conservatories)	18
2.3 Soffits, Fascias and Barge Boards	19
2.4 Cladding	20
3.0 Internal Fit Out	21
3.1 Floorboards	21
3.2 Other Internal Carcassing Timber	22
4.0 Internal Joinery	23
4.1 Stairs and Stair Parts	23
4.2 Internal Doors and Screens	24
4.3 Mouldings	25
4.4 Floor Finishes	26
4.5 Wall Finishes	27
5.0 Internal Furniture	28
5.1 Fitted Furniture	28
5.2 Loose Furniture	29
6.0 External Landscaping	30
6.1 Fence Posts and Fencing	30
6.2 Decking	31
6.3 Garden Products	32
7.0 Packaging and Transportation	33
7.1 Pallets and Packing Cases	33
7.2 Cable Drums	34
8.0 Temporary Works	35
8.1 Hoardings	35
8.2 Formwork	36
8.3 Scaffold Boards	37
9.0 Heavy Industrial	38
9.1 Railway Sleepers & Telegraph Poles	38
9.2 Timber from Heavy Industrial Sites	39
Appendix 1 – Wood Waste WM3 Assessment Confirmation	40
Appendix 2 – Glossary of Abbreviations	41
Appendix 3 – List of Testing Laboratories	42

0.0 Introduction

This guide has been produced by the members of the Chartered Institution of Wastes Management (CIWM) Construction, Demolition and Excavation (C,D&E) Technical Advisory Group (TAG) to help its members and the wider construction industry manage waste wood correctly. The guidance will ensure that waste wood is properly classified at the time of disposal and subsequently processed for appropriate end uses. 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). The other three UK environmental regulators, Scottish Environment Protection Agency (SEPA), Natural Resources Wales (NRW), and the Northern Ireland Environment Agency (NIEA) have been fully involved in the Waste Wood Classification Project, but their regulatory positions on the outcome of this work may differ to those of the EA, so please check local guidance.

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 non-hazardous or hazardous. Timbers used for heavy industrial installations and certain softwood timbers (structural timbers, tile battens, external joinery, fence posts and decking) produced from 1950 through to 2007 are the main area of concern. These may have been treated with preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold and are likely to originate only from demolition and refurbishment projects on buildings. **This waste timber will therefore need to be identified and segregated from other wood waste at source, and consigned as hazardous waste, unless independent laboratory test evidence can be provided to confirm otherwise.**

The CIWM C,D&E TAG would like to extend their thanks to all those who have been involved in the Waste Wood Classification Project, in particular the National Federation of Demolition Contractors (NFDC) for providing the majority of the funding to enable this document to be produced, the Wood Recyclers Association (WRA) for their expert project management of the process, and the other key partners for their help and guidance. The key partners are listed below:



We would also like to thank the members of the CIWM C,D&E Technical Advisory Group listed on the back of this document who kindly provided funding and support to enable the production of this guidance document.

Author: Charlie Law – Sustainable Construction Solutions Ltd



Sustainable Construction Solutions

www.SusConSol.co.uk

0.1 Objectives 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 were 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

0.2 Is Your Wood Waste?

Legally, waste is defined in Article 3, Para. 1 of the [European Waste Framework Directive](#) (EWFD) as **“any substance or object that the holder discards, intends to discard, or is required to discard.”** Even if the material is sent for recycling, or undergoes treatment in house, it can still be waste, and therefore all waste duty of care requirements will apply.

Virgin timber and virgin timber residues, including whole trees and the woody parts of trees such as branches and bark derived from tree surgery and other similar operations, are classed as virgin timber, and are not waste if they are certain to be reused for the same purpose to which you would use virgin timber. This could include:

- fuel for appliances, either as logs or woodchip;
- woodchip, left in situ, used on pathways or for animal bedding;
- raw material for the production of wood based products or paper.

Clippings or trimmings that consist primarily of foliage, i.e. the leaves of a tree or leaves on the stems of branches on which they are growing, are waste.

Therefore, discarded wood from construction and demolition activities, which is not virgin timber, such as timber removed during demolition or refurbishment, off-cuts, shavings, chippings and sawdust, will be classed as waste.

Waste wood may have been treated with, or been contaminated during their life with, hazardous chemical preservatives or other oils or chemicals in concentrations that can impact on human health and the environment if not dealt with correctly. Many of these preservative treatments and contaminants are not visually identifiable.

By law, waste wood must be assessed for hazardous properties in accordance with Technical Guidance WM3, and then classified by production process using the appropriate European Waste Catalogue (EWC) code (e.g. EWC 17 02 01 for non-hazardous construction and demolition waste wood). Waste wood should be considered hazardous unless proved otherwise using this guidance document, with any hazardous waste wood being identified and segregated at source for separate collection. The Construction Design and Management (CDM) Regulations require the client to provide information to the designer and contractor on hazards that may be present on a site. Therefore, an initial assessment should be carried out during the concept design stage (RIBA stage 2) to identify whether hazardous wood is present so management measures can be priced in. Where testing of samples is required, section 0.5 ‘Waste Wood Sample Testing’ gives advice on what tests need to be requested.

Waste transfer notes (WTNs) must be completed for all non-hazardous waste wood, and to aid recycling, state in the description whether the wood is clean untreated or treated.

Hazardous waste consignment notes must be completed for any waste wood deemed hazardous. In addition to the EWC code and waste description, this must also state the chemicals used and the WM3 Hazardous Property (HP) code(s) assigned to the waste.

0.3 Timber Use Classes and Preservative Treatments

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.	Floorboards, 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 normally 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 hazard 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.

For the purposes of the WM3 model calculations used by the Wood Protection Association (WPA) to determine the hazardous nature of timber components in the document, the highest retention appropriate to the end use in question was assumed, i.e. the worst-case situation. The known loading of biocide in kg or g/m³ in the treated zone was then used to calculate the expected overall concentration of biocide in the wood waste in question and complete a model WM3 assessment.

The following preservative treatments are most likely to have been used on softwood timbers since the 1950s:

Table 2: Formulation Types

Code	Appearance	Application	Biocides			Plus
A	green/brown	high pressure (HP)	Copper Compounds*	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 Carb.	Azoles	Quats	
I	green/brown	high pressure (HP)	Copper Carb.	Azoles		Boron
J	green/brown	high pressure (HP)	Copper Carb.	Cu-HDO		Boron
K	green/brown	high pressure (HP)	Copper Carb.		Quats	Boron
L	green/brown	high pressure (HP)	Copper Carb.	Azoles		
M	brown	high pressure (HP)	Creosote			

* Copper compounds may include Copper Sulphate, Copper Oxide or Copper Carbonate.

Key

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

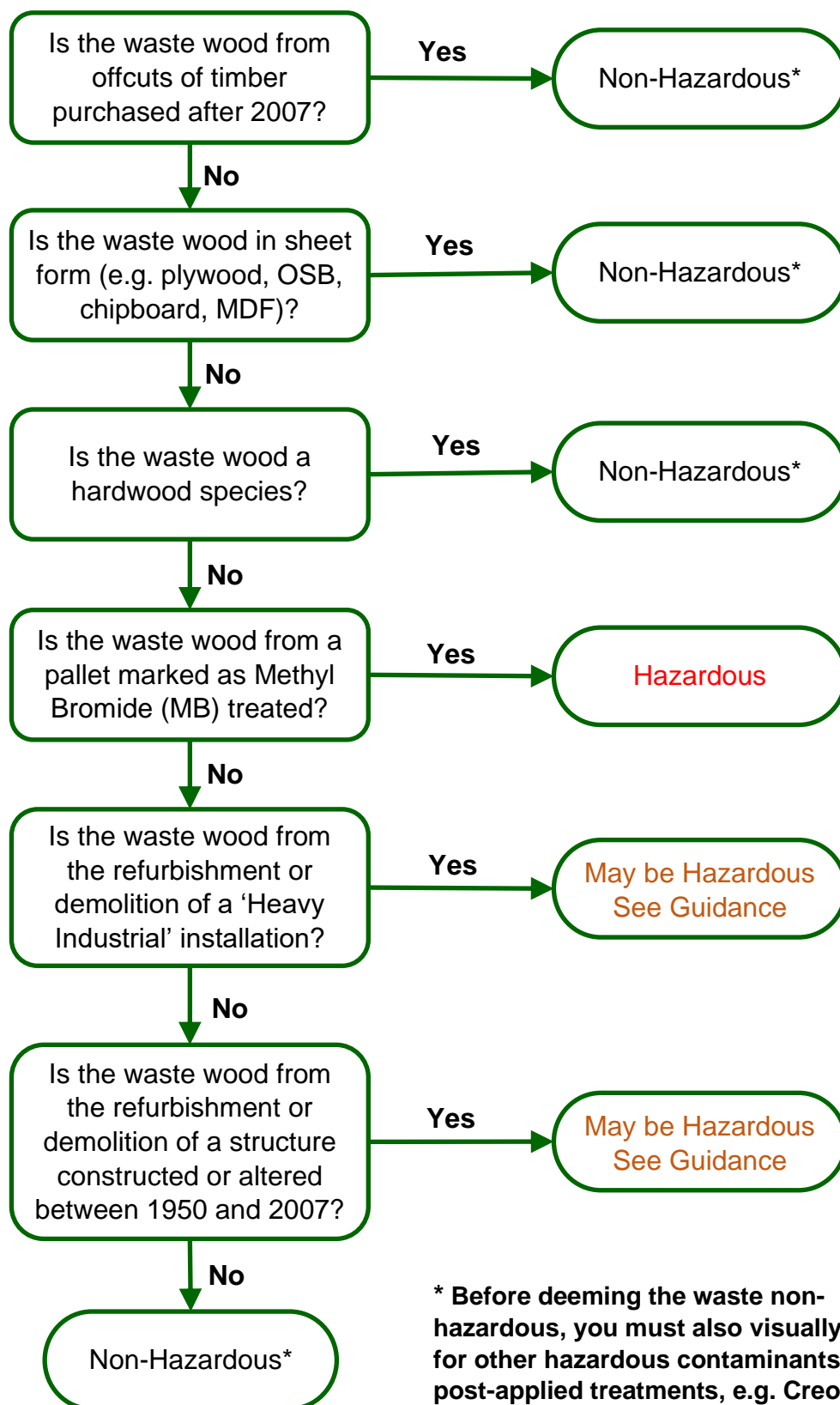
Table 3: Wood preservative treatment formulations at year of construction by use class

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	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

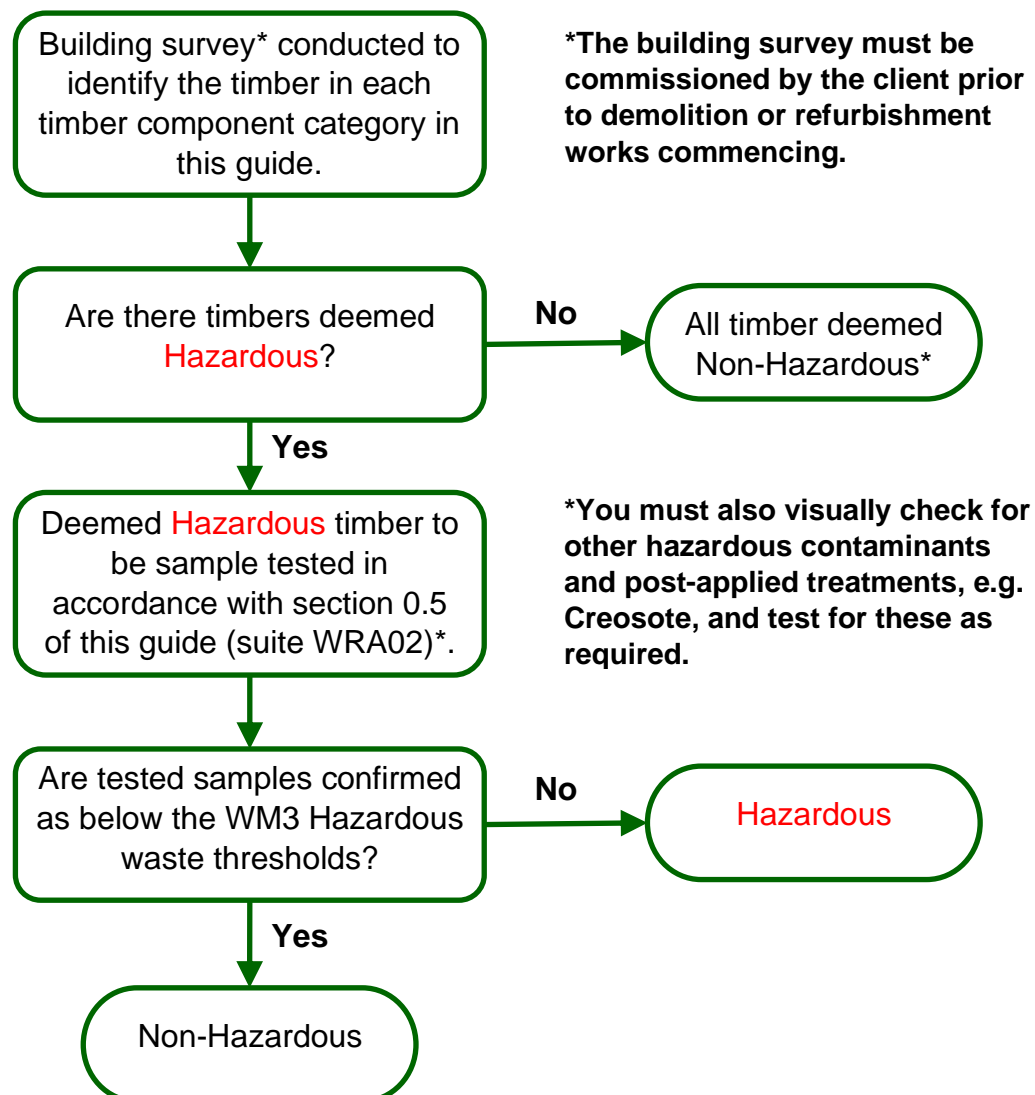
Following a desk study of the likelihood of preservative treatments being used for individual components, independent laboratory testing was carried out on a limited number of samples from the higher risk component areas produced from softwood timbers from 1950 through to 2007. These high risk components included structural timbers, tile battens, external joinery, fence posts and decking. It was found that the concentrations of hazardous substances in a small number of these samples was above WM3 permitted levels, meaning these components would have to be consigned as hazardous waste.

0.4 Waste Wood Flow Chart

The following flow chart details the initial questions that need to be asked when assessing whether your waste wood should be classed as hazardous or non-hazardous. See guidance pages for further definitions and examples, and complete a 'Wood Waste WM3 Assessment Confirmation' in Appendix 1 to demonstrate that the assessments has been completed.



Where timber is from the refurbishment or demolition of a 'Heavy Industrial' installation, or the refurbishment or demolition of a structure constructed or altered between 1950 and 2007 the following process should be followed:



0.5 Waste Wood Sample Testing

Where timber falls within the 'May be Hazardous' category in the above flow chart, and from checking the relevant timber component in this guidance your timber is deemed hazardous, you will need to carry out independent testing at a UKAS accredited laboratory, with experience in testing waste wood, to confirm whether your waste wood is below the threshold levels within WM3 to be classified as non-hazardous. A list of Wood Recyclers Association member laboratories can be found in Appendix 3.

Representative samples are required for classification and determining if the waste wood has hazardous properties. For most projects you will only need to sample one of each component type per project; multiple tests are not needed of the same wood type if the wood was all installed or treated at the same time. Where it is suspected wood was added at a different time, say during a refurbishment, then one of each component from the refurbished area must also be tested. Different components from the same project must be tested individually. Samples must be taken from a complete cross section of the wood, as treatment concentrations vary considerably from the surface to the centre, and from a central portion of the component, not the ends. Samples should be a minimum of 200 grammes in weight (a sample 150mm in length will be suitable for most timbers) to ensure enough material can be prepared by the laboratory for testing, so check with the laboratory for the minimum size required. You will need to follow the advice of the laboratory to ensure your samples meet legal Duty of Care requirements when transporting them to the laboratory.

Each sample will need to be tested to suite WRA02 to test for:

- a. Total metals suite, which must include Arsenic (As), Copper (Cu), Chromium (Cr), Zinc (Zn), Lead (Pb) and Tin (Sn);
- b. Where Tin (Sn) is confirmed from the total analysis as above 25mg/kg, it should be considered to be in the form Tributyltin, and therefore tested for Tributyltin Oxide or Tributyltin Naphthenate;
- c. Dieldrin;
- d. Lindane;
- e. Permethrin;
- f. Pentachlorophenol (PCP).

Each sample must be accompanied by a [WRA Quick Guide Form](#).

Where contamination from other hazardous substances is suspected (e.g. creosote treatments, contamination from oils and/or other chemicals, etc.) you will need to discuss additional testing requirements separately with your chosen laboratory, as these will be dependent on the contamination suspected (e.g. analysis of total petroleum hydrocarbons (TPH) for oil based substances such as creosote).

Once the test results are received, these will then need to be assessed in accordance with WM3 to determine whether the tested sample is hazardous or non-hazardous. If you do not have the expertise in-house to do this, you may need to request that the laboratory do this assessment as well.

To enable industry results from potentially hazardous wood waste samples to be compared, and potentially enable their removal from the potentially hazardous category in future revisions of this document, **all results must also be shared anonymously with the WRA via HazWaste Online**. You will need to give your testing contractor permission to do this.

Further information: [WRA-Demolition-Wood-Quick-Guide.pdf \(woodrecyclers.org\)](#)

0.6 Wood Recycling Grades

The following wood recycling grades have been developed by the wood recycling industry to assist in the segregation of different timber types. Wherever possible, sites should segregate wood waste into these categories to enable maximum recycling efficiency.

Grade A Clean Untreated Waste Wood (Non-Hazardous Clean Untreated)

Must be visibly 'clean' untreated non-hazardous waste, which is used as a feedstock for animal bedding, equine and landscaping surfacing. This could include:

- untreated packaging waste, scrap pallets, packing cases, newer cable drums; and
- off-cuts from the manufacture of hardwood and untreated softwood products.

Grade B Business Waste Wood (Non-Hazardous Treated)

Consists predominantly of 'clean' non-hazardous waste, which is used as a feedstock for panel board manufacture and IED Chapter IV biomass installations. This could include:

- Grade A material as above;
- untreated construction and demolition hardwood and softwood;
- softwood treated with hazardous preservatives in low concentrations below the WM3 hazardous waste threshold (e.g. new treated carcassing timber);
- wood treated with limited amounts of coatings that are non-hazardous when dry (e.g. water-based paints and varnishes);
- wood contaminated with limited amounts of other non-hazardous material (e.g. nails, concrete, glass);
- limited quantities of panel boards (e.g. plywood, OSB, chipboard, MDF).

Grade C Municipal Waste Wood (Non-Hazardous Treated)

Consists of non-hazardous waste, which is used as a feedstock for IED Chapter IV biomass installations and for panel board manufacture in controlled volumes. This could include:

- Grade A & B material above, but with higher levels of non-hazardous treatments (e.g. layers of oil-based paints and varnishes, glues, concrete, etc.);
- larger quantities of panel boards (e.g. plywood, OSB, chipboard, MDF);
- fencing and decking;
- flat-pack chipboard furniture.

Grade D Waste Wood (Hazardous Treated)

Grade D waste wood will include any item of waste wood which has been coated, painted or otherwise treated with any hazardous substance in quantities above the WM3 hazardous threshold during manufacture, and will require specialist disposal. Treatments may include heavy metals, in particular chromated copper arsenate (CCA), creosote, halogenated compounds or metal pigment containing treatments. Wood with these treatments could include:

- creosote coated softwood timbers (e.g. telegraph poles and railway sleepers);
- softwood structural carcassing timbers (e.g. floor and roof joists, tile battens) from buildings constructed between 1950 and 2007;
- softwood external joinery (e.g. doors and windows, and their frames, soffit, fascia and barge boards) from buildings constructed between 1950 and 2007;
- softwood fence posts and decking components installed between 1950 and 2007;
- methyl bromide treated pallets, and cable drums manufactured prior to 1989;
- timber from heavy industrial sites.

Wood Waste Assessment Guidance

The following pages outline the possible timber components likely to be encountered on construction and demolition sites.

To determine whether the component you wish to dispose of is classed as hazardous or non-hazardous waste, find the component on the following pages and see if there is a hazardous waste code listed.

If no hazardous waste code is listed against the component then it has been deemed as a non-hazardous waste component.

If a hazardous waste code is listed against the component, you will need to consult the guidance section to determine whether your component is deemed a hazardous or non-hazardous waste component. Hazardous Property (HP) codes commonly associated with the likely treatment are given where known, however testing will need to be carried out to determine these where the exact treatment is not known.

You will need to complete the 'Wood Waste WM3 Assessment Confirmation' in Appendix 1 to demonstrate that the assessment has been completed. If potentially hazardous timber is present on the project and likely to be disposed of, this assessment is to be completed for each load of non-hazardous waste timber and must accompany the Waste Transfer Note. Any timber assessed as hazardous will require specialist hazardous waste disposal and a separate Consignment Note. Where it is certain that all timber from a project is non-hazardous following assessment, a single sheet can be completed for the project and sent to the Transferee (i.e. waste carrier or disposal facility).

If there is any doubt as to the hazardous nature of the wood, it must be disposed of as hazardous waste.

1.0 Structural Timbers

1.1 Timber Frame



Components:

Sole plates, Structural timber frame components, Ground and upper floor joists (including strutting), studwork framing.

Waste Code:

17 02 01 Non-hazardous Treated

17 02 04* Hazardous Treated

Hazardous Properties:

Chromated Copper Arsenate (CCA) treated wood: **HP7**
Carcinogenic, **HP14** Ecotoxic

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 Treated.
- 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 Treated 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 Treated.

1.2 Wall and Roof Sheathing

**Components:**

Plywood, Orientated strand boards (OSB)

Waste Code:

17 02 01 Non-hazardous Treated

Hazardous Properties:

N/A

Guidance:

- These components are unlikely to have been treated with preservatives during manufacture, however they will contain glues, so they should be deemed Non-hazardous Treated.

1.3 Roof Timbers



Components:

Roof trusses, Pitched roof rafters, Purlins, Ceiling joists, Flat roof joists, Firrings, Upstands.

Waste Code:

17 02 01 Non-hazardous Treated

17 02 04* Hazardous Treated

Hazardous Properties:

Chromated Copper Arsenate (CCA) treated wood: **HP7**
Carcinogenic, **HP14** Ecotoxic

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 Treated.
- 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 Treated 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 Treated.

1.4 Tiling & Cladding Battens



Components:	Roof tiling battens, sarking boarding, cladding battens.
Waste Code:	17 02 01 Non-hazardous Treated 17 02 04* Hazardous Treated
Hazardous Properties:	Chromated Copper Arsenate (CCA) treated wood: HP7 Carcinogenic, HP14 Ecotoxic
Guidance:	<ul style="list-style-type: none">Softwood timber components produced prior to 1950, and hardwood timber and sheet material components from any era, are unlikely to have been treated with preservatives during manufacture, so these components should be deemed Non-hazardous Treated.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 Treated 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 Treated.

1.5 Engineered Timber



Components:

Glue laminated (Glulam) beams, Cross laminated timber (CLT) panels, Laminated veneer lumber (LVL).

Waste Code:

17 02 01 Non-hazardous Treated

Hazardous Properties:

N/A

Guidance:

- These components are unlikely to have been treated with preservatives during manufacture, however they are likely to contain glues, so they should be deemed Non-hazardous Treated.

2.0 External Joinery

2.1 Doors and Door Frames



Components:

Doors, Door frames, Sills, Glazing beads.

Waste Code:

17 02 01 Non-hazardous Treated

17 02 04* Hazardous Treated

Hazardous Properties:

Dependent on treatment – Must be tested and assessed under Technical Guidance WM3.

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 coated with paints or varnishes, so these components should be deemed Non-hazardous Treated.
- Softwood timber components produced between 1950 and 1995 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 Treated unless independent laboratory test evidence confirming otherwise is obtained.
- Softwood timber components produced from 1996 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 Treated.

2.2 Windows and Window Frames (Including Conservatories)



Components:	Casement or sash windows, Window frames, Cills, Glazing beads.
Waste Code:	17 02 01 Non-hazardous Treated 17 02 04* Hazardous Treated
Hazardous Properties:	Dependent on treatment – Must be tested and assessed under Technical Guidance WM3.
Guidance:	<ul style="list-style-type: none">• 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 coated with paints or varnishes, so these components should be deemed Non-hazardous Treated.• Softwood timber components produced between 1950 and 1995 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 Treated unless independent laboratory test evidence confirming otherwise is obtained.• Softwood timber components produced from 1996 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 Treated.

2.3 Soffits, Fascias and Barge Boards



Components:	Soffit boards, Fascia boards, Barge boards.
Waste Code:	17 02 01 Non-hazardous Treated 17 02 04* Hazardous Treated
Hazardous Properties:	Dependent on treatment – Must be tested and assessed under Technical Guidance WM3.
Guidance:	<ul style="list-style-type: none">• 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 coated with paints or varnishes, so these components should be deemed Non-hazardous Treated.• Softwood timber components produced between 1950 and 1995 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 Treated unless independent laboratory test evidence confirming otherwise is obtained.• Softwood timber components produced from 1996 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 Treated.

2.4 Cladding



Components:	Machined softwood cladding (coated), Machined hardwood cladding (coated and uncoated), Waney edge cladding.
Waste Code:	17 02 01 Non-hazardous Treated 17 02 04* Hazardous Treated
Hazardous Properties:	Dependent on treatment – Must be tested and assessed under Technical Guidance WM3.
Guidance:	<ul style="list-style-type: none">• 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 coated with paints or varnishes, so these components should be deemed Non-hazardous Treated.• Softwood timber components produced between 1950 and 1995 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 Treated unless independent laboratory test evidence confirming otherwise is obtained.• Softwood timber components produced from 1996 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 Treated.

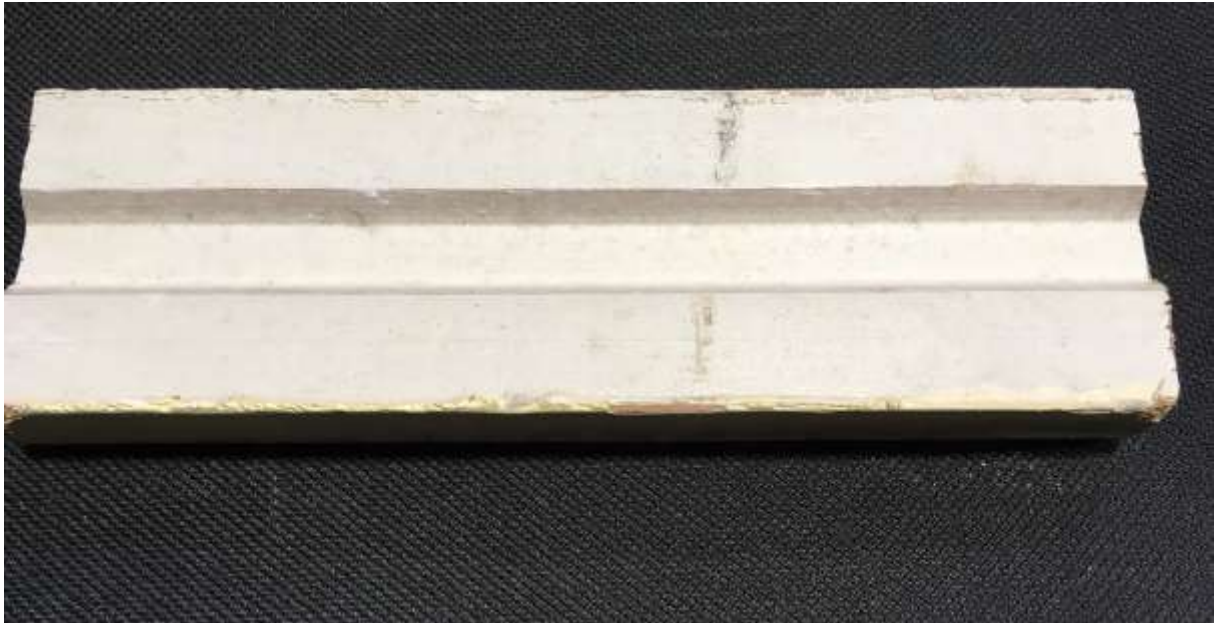
3.0 Internal Fit Out

3.1 Floorboards



Components:	Square edged or tongued and grooved softwood and hardwood floorboards, Chipboard flooring, Plywood, Orientated strand boarding (OSB).
Waste Code:	17 02 01 Non-hazardous Treated
Hazardous Properties:	N/A
Guidance:	<ul style="list-style-type: none">Hardwood, softwood and sheet material components are unlikely to have been treated with preservatives during manufacture, however they are likely to contain glues or to have been coated with paints or varnishes, so they should be deemed Non-hazardous Treated.

3.2 Other Internal Carcassing Timber



Components:	Ceiling battens, Shadow gaps, MDF panels
Waste Code:	17 02 01 Non-hazardous Treated
Hazardous Properties:	N/A
Guidance:	<ul style="list-style-type: none">Both hardwood and softwood components are unlikely to have been treated with preservatives during manufacture, however they are likely to contain glues or to have been coated with paints or varnishes, so they should be deemed Non-hazardous Treated.

4.0 Internal Joinery

4.1 Stairs and Stair Parts

**Components:**

Stringers, Treads and Risers, Newel Posts, Handrails, Spindles and Balusters.

Waste Code:

17 02 01 Non-hazardous Treated

Hazardous Properties:

N/A

Guidance:

- Both hardwood and softwood components are unlikely to have been treated with preservatives during manufacture, however they are likely to contain glues or to have been coated with paints or varnishes, so they should be deemed Non-hazardous Treated.

4.2 Internal Doors and Screens



Components:

Doors, Door linings, Screen frames, Architraves, Threshold strips, Glazing beads.

Waste Code:

17 02 01 Non-hazardous Treated

Hazardous Properties:

N/A

Guidance:

- Both hardwood and softwood components are unlikely to have been treated with preservatives during manufacture, however they are likely to contain glues or to have been coated with paints or varnishes, so they should be deemed Non-hazardous Treated.

4.3 Mouldings

**Components:**

Skirting, Architrave, Dado rails, Picture rails, Cornicing

Waste Code:

17 02 01 Non-hazardous Treated

Hazardous Properties:

N/A

Guidance:

- Both hardwood and softwood components are unlikely to have been treated with preservatives during manufacture, however they are likely to contain glues or to have been coated with paints or varnishes, so they should be deemed Non-hazardous Treated.

4.4 Floor Finishes



Components:	Parquet flooring, Solid wood flooring, Engineered timber flooring, Laminate flooring.
Waste Code:	17 02 01 Non-hazardous Treated
Hazardous Properties:	N/A
Guidance:	<ul style="list-style-type: none">Both hardwood and softwood components are unlikely to have been treated with preservatives during manufacture, however they are likely to contain glues or to have been coated with paints or varnishes, so they should be deemed Non-hazardous Treated.

4.5 Wall Finishes



Components:	Wall panelling
Waste Code:	17 02 01 Non-hazardous Treated
Hazardous Properties:	N/A
Guidance:	<ul style="list-style-type: none">• Hardwood, softwood and sheet material components are unlikely to have been treated with preservatives during manufacture, however they are likely to contain glues or to have been coated with paints or varnishes, so they should be deemed Non-hazardous Treated.

5.0 Internal Furniture

5.1 Fitted Furniture



Components:	Kitchen units and worktops, Wardrobes and other bedroom furniture
Waste Code:	17 02 01 Non-hazardous Treated
Hazardous Properties:	N/A
Guidance:	<ul style="list-style-type: none">Hardwood, softwood and sheet material components are unlikely to have been treated with preservatives during manufacture, however they are likely to contain glues or to have been coated with paints, varnishes, or plastic, so they should be deemed Non-hazardous Treated.

5.2 Loose Furniture

**Components:**

Tables, Desks, Shelving units

Waste Code:

17 02 01 Non-hazardous Treated

Hazardous Properties:

N/A

Guidance:

- Hardwood, softwood and sheet material components are unlikely to have been treated with preservatives during manufacture, however they are likely to contain glues or to have been coated with paints, varnishes, or plastic, so they should be deemed Non-hazardous Treated.

6.0 External Landscaping

6.1 Fence Posts and Fencing



Components:	Posts, Panels, Rails, Boards
Waste Code:	17 02 01 Non-hazardous Treated 17 02 04* Hazardous Treated
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
Guidance:	<ul style="list-style-type: none">• Hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, however they are likely to have been coated, so these components should be deemed Non-hazardous Treated.• Softwood timber fence posts, rails and boards ① produced prior to 2007 are likely to have been treated with preservatives that contained hazardous substances in quantities above WM3 hazardous thresholds during manufacture, so these components should be deemed Hazardous Treated unless independent laboratory test evidence confirming otherwise is obtained.• Softwood timber fence panels ② 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 Treated.• 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 Treated.

6.2 Decking



Components:	Decking, Framing, Posts
Waste Code:	17 02 01 Non-hazardous Treated 17 02 04* Hazardous Treated
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
Guidance:	<ul style="list-style-type: none">• Hardwood timber components from any era, are unlikely to have been treated with preservatives during manufacture, however they are likely to have been coated, so these components should be deemed Non-hazardous Treated.• Softwood timber components produced prior to 2007 are likely to have been treated with CCA preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous Treated 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 Treated.

6.3 Garden Products

**Components:**

Garden Furniture, Tables, Pergolas, Sheds

Waste Code:

17 02 01 Non-hazardous Treated

Hazardous Properties:

N/A

Guidance:

- Softwood 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 Treated.

7.0 Packaging and Transportation

7.1 Pallets and Packing Cases



Components:	Pallets, Packing Cases
Waste Code:	15 01 03 Non-hazardous Clean Untreated 15 01 10* Hazardous Treated
Hazardous Properties:	Methyl Bromide treated wood: HP4 Irritant, HP5 Specific target organ toxicity, HP6 Acute Toxicity, HP11 Mutagenic, HP14 Ecotoxic
Guidance:	<p>Packaging and pallets are unlikely to have been treated unless they were manufactured outside the UK, or for export to the EU, where they will have been treated for biosecurity purposes. The following codes are used alongside the IPPC logo (see inset) to identify the treatment used:</p> <ul style="list-style-type: none">○ DB – Debarked○ HT – Heat Treated○ KD – Kiln dried○ MB – Methyl Bromide (Hazardous) <ul style="list-style-type: none">• Packaging and pallets without any markings, or marked with DB, HT, and/or KD, would not have been treated with preservatives during manufacture, so these should be deemed Non-hazardous Clean Untreated.• Packaging and pallets marked with MB will have been treated with Methyl Bromide, so these should be deemed Hazardous Treated.

7.2 Cable Drums



Components:

Cable drums.

Waste Code:

15 01 03 Non-hazardous Treated

15 01 10* Hazardous Treated

Hazardous Properties:

Chromated Copper Arsenate (CCA) treated wood: **HP7**
Carcinogenic, **HP14** Ecotoxic

Guidance:

- Hardwood cable drums are unlikely to have been treated with preservatives during manufacture, however they are likely to have been coated, so these components should be deemed Non-hazardous Treated.
- Softwood cable drums produced prior to 1989 are likely to have been treated with CCA preservatives that contained hazardous substances in quantities above the WM3 hazardous threshold during manufacture, so these components should be deemed Hazardous Treated unless independent laboratory test evidence confirming otherwise is obtained. Note: 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 Treated.

8.0 Temporary Works

8.1 Hoardings



Components:	Plywood or OSB sheeting, Softwood posts, rails and cover strips
Waste Code:	17 02 01 Non-hazardous Clean Untreated / Treated
Hazardous Properties:	N/A
Guidance:	<ul style="list-style-type: none">• Hardwood and softwood sheet material components (plywood and OSB) are unlikely to have been treated with preservatives during manufacture, however they are likely to have been coated with paints or varnishes, so these components should be deemed Non-hazardous Treated.• Softwood timber components are unlikely to have been treated, but if treated and installed 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 Treated.• Softwood timber components that have not been treated with preservatives during manufacture, and where no other coatings are present, should be classed as Non-hazardous Clean Untreated.

8.2 Formwork



Components:

Plywood forms, Softwood framing and supports

Waste Code:

17 02 01 Non-hazardous Clean Untreated / Treated

Hazardous Properties:

N/A

Guidance:

- Hardwood and softwood sheet material components (plywood) are unlikely to have been treated with preservatives during manufacture, and current release agents used to coat the face of the forms are likely to have been used in quantities below the WM3 hazardous threshold, therefore these components should be deemed Non-hazardous Treated.
- Softwood support timbers are unlikely to have been treated with preservatives during manufacture, therefore where no other coatings are present, these components should be classed as Non-hazardous Clean Untreated.

8.3 Scaffold Boards



Components:	Softwood boards
Waste Code:	17 02 01 Non-hazardous Clean Untreated / Treated
Hazardous Properties:	N/A
Guidance:	<ul style="list-style-type: none">• Softwood scaffold boards are unlikely to have been treated with preservatives during manufacture, therefore these components should be deemed Non-hazardous.• Boards coated with paints, varnishes, or other finishes, should be classed as Non-hazardous Treated. Where no coatings are present, boards should be classed as Non-hazardous Clean Untreated.

9.0 Heavy Industrial

9.1 Railway Sleepers & Telegraph Poles



Components:

Railway sleepers, Telegraph poles

Waste Code:

17 02 04* Hazardous Treated

Hazardous Properties:

Creosote treated wood: **HP4** Irritant, **HP5** Specific Target Organ Toxicity, **HP7** Carcinogenic, **HP10** Toxic for reproduction, **HP13** Sensitising, **HP14** Ecotoxic

Guidance:

- Softwood and hardwood components from any era are likely to have been treated with creosote, therefore these components should be deemed Hazardous Treated unless independent laboratory test evidence confirming otherwise is obtained.

9.2 Timber from Heavy Industrial Sites



Components:	Waste wood from cooling towers and hydraulic engineering sites.
Waste Code:	17 02 04* Hazardous Treated
Hazardous Properties:	Chromated Copper Arsenate (CCA) treated wood: HP7 Carcinogenic, HP14 Ecotoxic. Other contamination: As WM3 assessment and test results.
Guidance:	<ul style="list-style-type: none">• 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 may have been contaminated with other hazardous substances in quantities above the WM3 hazardous threshold during use, so these components should be deemed Hazardous Treated unless independent laboratory test evidence confirming otherwise is obtained.• Softwood timber components produced between 1950 and 2007 are likely to have been treated with CCA 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 Treated 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, however they may have been contaminated with other hazardous substances in quantities above the WM3 hazardous threshold during use, so these components should be deemed Hazardous Treated unless independent laboratory test evidence confirming otherwise is obtained.

Appendix 1 – Wood Waste WM3 Assessment Confirmation

This assessment is to be completed for each project / load as applicable.

Waste Producer (Transferor):

Project Address:

Waste Carrier / Disposer (Transferee):

Waste Transfer Note no. (if applicable): **Date:**

The construction and demolition wood waste for the above Project / Waste Transfer Note* has been assessed against the requirements of WM3 'Guidance on the classification and assessment of waste' in accordance with the 'Waste Wood Assessment Guidance for the Construction and Demolition Sectors' and includes the following: (* Delete as applicable)

Non-hazardous waste not requiring additional test information. (Please ✓)

Structural softwood timber produced prior to 1950 or from 2008 onwards. (E.g. timber frame, floor joists, roof trusses and rafters, tiling battens).	
Softwood external joinery produced prior to 1950 or from 1995 onwards. (E.g. doors, door and window frames, cladding, soffit, fascia or barge boards).	
Softwood internal joinery and first fix (from any era) (E.g. doors, frames, screens, architraves, flooring, skirting, stair parts).	
Hardwood internal or external joinery (from any era) (E.g. doors, screens, window frames, architraves, skirting, flooring, stair parts).	
Sheet material (from any era) (E.g. plywood, OSB, chipboard, MDF)	
Engineered timber (from any era) (E.g. Glulam beams, CLT panels, LVL).	
Internal furniture (from any era) (E.g. kitchen units and worktops, wardrobes, loose furniture)	
Landscape timber deemed non-hazardous, and not treated with creosote. (E.g. softwood prior to 1950 or from 2008 onwards, fence panels, hardwood)	
Packaging and transportation timber produced from 1989 onwards and not treated with Methyl Bromide. (E.g. pallets, cable drums)	
Temporary works timber (E.g. hoarding timbers, formwork)	

Non-hazardous waste requiring additional test information. (Independent laboratory test results confirming timber is non-hazardous is to be attached to this assessment confirmation).

Structural softwood timber produced between 1950 and 2007. (E.g. timber frame, floor joists, roof trusses and rafters, tiling battens).	
Softwood external joinery produced between 1950 and 1995. (E.g. doors, door and window frames, cladding, soffit, fascia or barge boards).	
Garden timber deemed potentially hazardous (E.g. Softwood fence posts, rails and decking produced between 1950 and 2007 or treated with creosote)	
Softwood, hardwood and sheet material from heavy industrial demolition sites.	

Signed: Print Name:
(on behalf of Waste Producer)

Appendix 2 – Glossary of Abbreviations

C&D	Construction & Demolition
CCA	Copper Chrome Arsenate
CDM	Construction Design and Management
CIWM	Chartered Institution of Wastes Management
CLT	Cross laminated timber
DB	Debarked
DPC	Damp Proof Course
EA	Environment Agency
EU	European Union
EWC	European Waste Catalogue
EWFD	European Waste Framework Directive
Glulam	Glue Laminated
HP	Hazardous Property
HT	Heat Treated
HWCN	Hazardous Waste Consignment Note
HWRC	Household Waste Recycling Centre
IED	Industrial Emissions Directive
IPPC	International Plant Protection Convention
KD	Kiln Dried
LP & HP	Low Pressure & High Pressure
LVL	Laminated Veneer Lumber
MB	Methyl Bromide
MDF	Medium Density Fibreboard
N/A	Not Applicable
NFDC	National Federation of Demolition Contractors
NIEA	Northern Ireland Environment Agency
NRW	Natural Resources Wales
OSB	Orientated Strand Board
PCB	Polychlorinated Biphenyl
PCP	Pentachlorophenol
RIBA	Royal Institute of British Architects
RPS	Regulatory Position Statement
SEPA	Scottish Environment Protection Agency
TBTN	Tributyltin Naphthenate
TBTO	Tributyltin Oxide
TPH	Total Petroleum Hydrocarbons
UC	Use Class
UK	United Kingdom
UKAS	United Kingdom Accreditation Service
WM3	Hazardous Waste Technical Guidance – Waste Management 3
WPA	Wood Protection Association
WRA	Wood Recyclers' Association
WTN	Waste Transfer Note
WWC	Waste Wood Classification

Appendix 3 – List of Testing Laboratories

The following is a list of Wood Recyclers Association member organisations (as of Jan 2024) who can carry out the testing services outlined in this guide.

Alfred H Knight (Prescot)

Kings Business Park

Kings Drive

Prescot

L34 1PJ

Ken Hepburn

0151 481 5850

www.ahkgroup.com/markets/solid-fuels/

solidfuels@ahkgroup.com

Marchwood (part of Cawood Scientific Ltd)

Unit 1A-2A Marchwood Industrial Park

Marchwood

Southampton

Hampshire

SO40 4BL

Ben Rowe

02380 786979

www.cawood.co.uk/marchwood/

Ben.Rowe@marchwood-scientific.co.uk

Socotec UK Ltd

Renewable Energy

Unit 3

Canal Street

Burton on Trent

DE15 OYZ

Anna Lloyd

07803 262082

www.socotec.co.uk

Anna.Lloyd@socotec.com

This guide has been produced by the members of the Chartered Institution of Wastes Management (CIWM) Construction Demolition and Excavation Technical Advisory Group.



CIWM CD&E TAG

The financial support of the following members to enable its production and publication is greatly appreciated:

Project Sponsor



Additional Contributors

