

WOOD-FUEL QUALITY MANAGEMENT PLAN (WFQMP)

in regard to the

BIOMASS FACILITY

at

Sinkfall Farm Barrow-in-Furness

OMP Manager	Permit Number:	WEQMP Contacts
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Revisions

PREFACE

Sources of Wood shall include:

- a. Fresh cord wood from the forestry e.g. supplied by Tilhill Forestry Ltd. This to be chipped and dried to G30 and G50 woodchip.
- b. An agreement with a Local Biomass Supply company is well advanced, this is where they will provide wet G30/G50 wood-chip to be dried.
- c. Contracts for removal, or acceptance of landscaper and tree-surgery thinnings and branches (virgin wood) are being escalated e.g. a recent one for tree thinnings from schools will produce over 250 tonnes.
- d. In the past there has been no outlet for tree roots and other wood that is too large or mis-shapen to go into the composting system, but with new size reduction equipment, these will be a valuable feedstock.
- e. A separately run operation deals in forestry products generates 'sawmill' type waste. Arrangement with other sawmills will enable the sawmills residues such as fence post offcuts, sawdust and shavings which amount to 5 – 10 tonne per week.
- f. The site has contracts for the removal of surplus timber pallets from the paper manufacturing Industry and local Councils; these shall be Grade A.
- g. For the woodchip, logs and other biomass materials the site will join the national BSL scheme that considers the source and supply route of biomass.

1.0 WOOD-FUEL QUALITY SPECIFICATION

1.1 Boiler Wood-Fuel Types

1.1.1 In addition to virgin wood/biomass, the boilers will be fuelled by Grade A waste wood. **No use of Grades B, C and D waste wood will be permitted.**

1.1.2 This document outlines the procedures that will be implemented by the site operator to ensure that the requirements for permitted fuel types can be complied with, e.g. assurance that in addition to virgin wood/biomass, only Grade A waste wood will be used to fuel the boiler.

2.0 WOOD-FUEL QUALITY MANAGEMENT

2.1 Procedures for Wood Inspection and Processing

2.1.1 The following describe procedures for the receipt and processing of waste wood at Sinkfall Farm to ensure that in addition to virgin wood/biomass, only Grade A waste wood is used in the boiler, e.g. wood that is predominantly clean and uncontaminated.

2.1.2 The management shall strictly prohibit the use of any other grades of waste wood in the boiler apart from Grade A (clean, uncontaminated) wood.

2.1.3 The following table outlines a description of the different types of waste wood, which has been obtained from DEFRA research/Wood Recyclers Association/PAS111 and can be used as a guide for identifying Grade A waste wood.

2.1.4 Waste wood colour coded green in the table below is the only waste wood permitted for use in the boilers (Grade A).

Grade A “Clean” Recycled Wood

Includes Waste Wood described as:

Solid softwood and hardwood, packaging waste, scrap pallets, packing cases and cable drums. Process off-cuts from joinery/manufacturing.

May include the following Non- Wood Materials to be removed so far as reasonably possible described as:

Nails and metal fixings. Minor amounts of paint, and surface coatings

MUST NOT INCLUDE the materials classed as Grade B, Grade C or Grade D.

Table 1. Criteria for Specification and grading of Waste Wood

Waste Wood Grade	Materials Within Waste Wood	Typical Non-Wood Content Prior to Processing
Grade A “Clean” Recycled Wood	Solid softwood and hardwood, packaging waste, scrap pallets, packing cases and cable drums. Process off-cuts from joinery/manufacturing	Nails and metal fixings. Minor amounts of paint, and surface coatings
Grade B Industrial Feedstock	May contain up to 60% Grade A, plus building and demolition materials and domestic furniture made from solid wood	Nails/metal fixings. Some paints, plastics, glass, grit, coatings, binders and glues
Grade C Fuel Grade	All above, plus fencing products, flat pack furniture made from boards products and DIY materials. High content of panel products such as chipboard, MDF, plywood, OSB and fibreboard	Nails and metal fixings. Paint coatings and glues, paper plastics and rubber, glass, grit. Coated and treated timber (non CCA or creosote)
Grade D Hazardous Waste	Fencing, transmission poles railway sleepers, cooling towers	Copper/chrome/arsenic preservation treatments, creosote

2.1.5 Non-hazardous wood treatments include the following:

- Ammoniacal copper quaternary;
- Copper azole (CA);
- Copper citrate and copper organic compounds;
- Borate preservatives;
- Light organic solvent preservatives (LOSP);

- Micro-emulsions;
- Wood stain;
- Paints;
- Varnish; and
- Fire retardants.

2.2 Wood Acceptance Procedures

2.2.1 The presence of small quantities of wood containing the above treatments would not render a load of wood as Grade B and C. As defined in the table above, clean recycled Grade A wood may contain minor amounts of paint and surface coatings.

2.2.2 The site will receive source segregated Grade A waste wood from external sources. The following outlines the operational procedures that will be in a place to inspect wood delivered to site.

- i. Grade A waste wood is delivered to site in Wagons, Skips or trailers. The loads are weighed using the weighbridge facility.
- ii. Once the load is weighed, it is directed to the wood recycling reception area.
- iii. Upon arrival at the reception area, the driver must announce arrival on-site and report to the Site Supervisor or Loading Shovel Driver.
- iv. The vehicle driver is instructed where to unload the wood and once unloaded, a visual inspection of the load is undertaken to ensure that the wood comprises Grade A material only. Wood of Grade A quality will be visibly identifiable using the criteria in Table 1 above and will typically include untreated and uncoated pallets, packing cases, cable drums and process off-cuts.
- v. If the wood has been delivered by a third party, the driver is required to wait on-site until the visual inspection has been completed. Once the load has been verified as comprising Grade A waste wood only, the driver is permitted to leave the site.
- vi. The unloaded wood is transferred to the internal wood storage and processing area as shown on the site layout plan.

2.3 Wood Rejection Procedure

2.3.1 In the unlikely event that contaminated wood is identified within a load, this is immediately quarantined on site and removed pending further treatment/disposal as soon as possible.

2.4 Wood Processing Procedure

- i. Within the wood processing building, wood is loaded to the shredder using a 360 Grab. The shredder shreds the wood to an appropriate size for use in the boilers.
- ii. The shredder also has magnets which extract metal contaminants during the shredding process.
- iii. The shredded Grade A wood is then transferred to the walking floor fuel loaders, which transfer the shredded wood to the boilers on a continuous basis.

3.0- WOOD SUPPLIER QUALITY ASSURANCE & REGISTRATION SYSTEM

With Reference to **Section 2.0 ‘ Input Wood Specification’**, this form is to provide the means to Assess and Confirm the Supplier as a bona fide source/supplier of feedstock, and assure statutory compliance and appropriate management systems and controls for feedstock quality.

3.1 Details of Supplier

1	Company name of Supplier	
2.	Supplier Official Trading Address	
3.	Company Registration No.	
4.	Person Responsible	
5.	Position in company	
6.	Local or Operational address	
7.	Contact details; telephones	
8.	Contact email address	

3.2 Details of Source

1	Description of Source Nature of activities and Wood types	
2.	WRA Wood Class	
3.	Source Trading Address	
4.	Source Operational address	
5.	Source QA Contact Person	
6.	Contact details; telephones	
7.	Contact email address	

3.3 Details of haulier

1	Haulier Trading Name	
2.	Haulier Operational address	
3.	Waste Carrier Reg. No.	
4.	Haulier Contact Person	
5.	Contact details; telephones	
6.	Contact email address	
7.	Vehicle Registration Numbers	