

# **HAZARDOUS WASTE OPERATIONS MANUAL**

**CLAYTON HALL MRF  
CHORLEY, LANCASHIRE**



**DECEMBER 2023**

## CONTENTS

1. Waste Pre-Acceptance Procedure
2. Waste Acceptance Procedure
3. Storage, Tracking and Recording
4. Waste Treatment Operations and Maintenance Schedule
5. Emissions Monitoring Plan

## DOCUMENT CONTROL

Date	Version	Changes/Comments
1/12/2023	V1	Original version for permit application

## RELATED DOCUMENTS

NWM280 Waste Characterisation and Pre-acceptance Form

NWM015 Corrective Action Report

EP29 Waste Rejection procedure

# 1. Waste Pre-Acceptance Procedure

## Purpose

To provide details regarding the waste pre-acceptance procedure for hazardous waste which before it is brought to site for processing under permit AP389CJ.

## Waste Pre-Acceptance

Any new suppliers or new waste materials which are to be brought to site are subject to pre-acceptance criteria. Where a supplier or waste materials which have previously been subject to pre-acceptance criteria, a reassessment will be required annually or if there are any changes to the waste or waste production process.

The **Waste Characterisation and Pre-Acceptance Form – NWM280** will be required to be completed by a member of the Hazardous Waste Department prior to materials being brought on to site. Other supporting information will also be requested such as sampling and analysis of materials.

A suitably competent person such as a Technically Competent Manager (TCM) (level 4) or qualified person (minimum HNC chemistry or equivalent) will review the pre-acceptance information in order to qualify materials against permit conditions prior to the acceptance of any waste materials. This will be recorded on the pre-acceptance form and the Pre-Acceptance Log where this will also be issued a unique reference number.

Sample details will be documented on the pre-acceptance form e.g. the location of the sampling point, number of samples and degree of consolidation, operating conditions at time of sampling.

The sample is to be clearly labelled with the waste producer details, description and hazards. The unique reference number from the pre-acceptance log must also be detailed on the label. The sample will be analysed against the waste description utilising a UKAS accredited laboratory. Analyses may include:

- Check on constituents declared by waste producer/holder to ensure permit compliance treatment plant specification and final disposal.

- Hazardous characteristics determined by WM3 suite analysis

- Physical appearance

A copy of the analyses will be reviewed against the waste description by a competent person and the analyses will be held with the relevant pre-acceptance form.

The Hazardous Waste Department will use this information to provide a costed treatment, recovery or disposal route(s) for the waste. The wastes will have a EWC code assigned by the waste producer. This will be checked by the Hazardous Waste Department and the receiving site permit will be checked to ensure that the assigned EWC code can be accepted.

All information is to be stored on file and kept for a minimum of five years for hazardous materials from the date placed onto file or last movement of the waste.

For previously accepted waste materials the member of the Hazardous Waste Department shall confirm the costing, treatment / disposal route(s) for the materials is (are) still valid.

On acceptance of the quote the pre-acceptance information is to be made available to the operational staff of the installation.

<b>Title</b>	<b>Waste Characterisation and Pre-Acceptance Form</b>				
<b>Date</b>	<b>13/12/2023</b>	<b>Site</b>	<b>Clayton Hall</b>	<b>Issue Number</b>	<b>1</b>

The Waste Characterisation and Pre-Acceptance Form is required to ensure that the waste streams can be evaluated to determine if they are permissible in accordance with the site permit conditions: EP389CJ and any other relevant procedures. Additionally, waste will only be permitted if its acceptance would not result in emissions to land, air and water, there are no signs of pests, vermin, odours, non-permitted waste types, etc.

Waste may only be permitted on site where a Consignment Note or Waste Transfer Note is present and the information detailed on the Consignment Note or Waste Transfer Note is correct.

The waste type & EWC Code MUST be listed in permit EP389CJ.

Waste Producer Details (Source Address, Origin etc.)		Collection Address (if different from producer)	
Telephone No.		Telephone No.	
Premises Code		SIC Code	

Pre-Acceptance Waste Material Information				Pre-Acceptance Ref Number:			
Nature of the process				Will the waste vary?			
Appearance (provide detail)		Smell		Colour		Consistency	
Physical Form (tick applicable)		Solid		Liquid		Sludge	
MSDS Supplied		Yes		No		Analysis / Sample Required	
Where was the sample taken from				Waste Container, Size and Amount			
Number of samples taken				Method			
*If a sample is not required, detail why		Visual inspection confirming description		Unused product as per MSDS			
		Unable to obtain representative sample		Other reason (detail)			
EWC Code(s):				Classification		Haz	
Waste Description						Non-Haz	
Hazard Statement							

<b>Hazard Classification:</b> (Please indicate hazards by ticking appropriate boxes below)														
HP 1	HP 2	HP 3	HP 4	HP 5	HP 6	HP 7	HP 8	HP 9	HP 10	HP 11	HP 12	HP 13	HP 14	HP 15

Components present in the waste: (tick YES or NO as appropriate, if yes provide component and concentration in the empty box below)											
Component	Yes	No	Percentage	Component	Yes	No	Percentage	Component	Yes	No	Percentage
Acids				Persistent Organic Pollutants (POP)				VOC - Halogenated			
Alkalis				VOC - Non Halogenated				List 1 and 2 Substances			
Ammonia/Amines				Pesticides/Biocides/Herbicides				Human or Veterinary medicines			
Toxic Gases on Acidification/Basification				Potentially infectious materials				Radioactive substances			
Metals/Metal Compounds				Explosives/Pyrophorics				Substances reacting with water			
Oxidising/Reducing Agents				Laboratory Chemicals				Other hazardous substances			
Odorous Substances				Cyanides				Nitrates/Nitrites			
Non Edible Oils											
Phenols/Halogenated Phenols											
Heterocyclic Compounds											
Halogenated Compounds excluding VOC											
Spontaneously combustibles											
Sulphur Compounds											
Controlled Drugs POMs											
PCBs/PCTs											

**I declare the above information is correct and I confirm I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.**

<b>Doc Reference</b>	NWM280	<b>Issue no.</b>	05	<b>Agreed by:</b>
<b>CONTROLLED DOCUMENT</b>	Yes	<b>Issued to/for</b>	All staff	<b>Supersedes:</b> n/a

**I confirm that the information provided in this form is correct to the best of my knowledge.  
I confirm that I am authorised by the above named company to complete and / or provide any relevant supporting documentation.**

Waste Producer Name:		Position:	
Signature:		Date:	

**Neales Waste Management internal use only**

Disposal / Treatment Route	
Cost	
Transport & Operational Cost	
Quote Reference	
Caveats	

**Form completed by Neales Waste Management Representative**

Name:		Position:	
Signature:		Date:	

**To be completed by a relevant company representative i.e. TCM, Qualified Person**

Has the above information been reviewed against relevant permit conditions?	Yes		No	
Is the waste type permissible under permit conditions?	Yes		No	
Has the Customer / Waste Producer been informed if the waste is non-permitted?	Yes		No	
Name:		Position:		
Signature:		Date:		

CONTROLLED DOCUMENT

<b>Doc Reference</b>	NWM280	<b>Issue no.</b>	05	<b>Agreed by:</b>
<b>CONTROLLED DOCUMENT</b>	Yes	<b>Issued to/for</b>	All staff	<b>Supersedes: n/a</b>

## 2. Waste Acceptance

### Purpose

To provide details regarding the waste acceptance procedure for hazardous waste when it is brought to site for processing under permit AP389CJ, in accordance with the site permit conditions and procedures.

### Waste Acceptance

Any waste materials which are to be brought to site are subject to **Waste Pre-Acceptance Procedure** and will be deemed acceptable under this procedure. The **Waste Characterisation and Pre-Acceptance Form – NWM280** may also be referred to as part of waste acceptance.

Waste materials are brought on to site by registered waste carriers. No materials are brought on to site by members of the public.

Site operatives will be notified of any in-coming materials by the Hazardous Waste Department. Operational staff shall then assign a delivery date with regard to volume of deliveries on that date and storage capacities for the materials and inform the Hazardous Waste Department or Customer. Before the materials are allowed onto site sufficient information will be provided to the competent person such as the pre-acceptance form.

A suitably competent person such as a Technically Competent Manager (TCM) (level 4), qualified person (minimum HNC chemistry or equivalent) must be available on site where hazardous materials are to be accepted.

Upon arrival onto site the paperwork (consignment note) accompanying the load is provided by the vehicle driver. Prior to accepting the materials, operatives must check the paperwork against the information provided by the vehicle driver for any discrepancies and to ensure that the waste is permissible under the relevant site permit conditions.

Where paperwork is not produced, the materials are not as described, the waste may be rejected as detailed in the **Waste Rejection Procedure**. The Hazardous Waste Department will be contacted and informed of the rejection and information regarding the rejection will be recorded on the waste rejection log.

If the waste is permissible, the vehicle driver will then be directed to the relevant part of the site where the materials will be unloaded. The material will be unloaded in the reception hall in front of the hazardous waste storage bay. Only the following hazardous waste codes will be accepted:

Waste Code	Description
<b>19 Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use</b>	
<b>19 10</b>	<b>Waste from shredding of metal-containing waste</b>
19 10 03*	fluff-light fraction and dust containing hazardous substances
19 10 05*	other fractions containing hazardous substances

The materials will be visually inspected by Site Operatives, prior to unloading, to ensure suitability. Where this is not practicable, the materials will be unloaded and visually inspected by Site Operatives in the reception area. If the waste conforms to the pre-acceptance information it will be transferred to hazardous waste storage bay.

Where it is found that the waste materials are not acceptable due to odours, non-permitted waste types etc. Site Operatives will quarantine the load and inform the TCM, qualified person, other relevant manager, Hazardous Waste Department to determine what action may be taken. The Waste Rejection Procedure must be referred to at this point.

Where it is found that the waste materials are permitted, the details of the incoming materials will be recorded on the system and the materials can be processed. The consignment note number will be recorded on a batch sheet to show that the waste has been accepted into bulk storage.

The storage bay will be labelled with the primary hazard code along with a description of the waste and the storage capacity of the bay.

## Sampling

A composite sample will be taken from at least 5 points in the load and stored in a 500 g plastic tub. The sample will be labelled with the date and the unique identifying number (weighbridge ticket number) and retained on site until one week after the load has been processed and removed.

## Waste Conformance Sampling and Analysis

Once per month a sample will be taken as described above and submitted to an accredited laboratory for analysis for comparison with the pre-acceptance information. Analytical results will be reviewed by the Hazardous Waste department and recorded on the tracking system. Any changes in composition and hazards will mean that waste acceptance will be suspended from the customer pending review. A full pre-application assessment will be carried out to restart acceptance of the material.

## Non-Conformance

Where materials have been accepted and have been subjected to further inspection and processing, any materials which are found to be incompatible, not as described, not adequately packaged etc. a **corrective action report – NWM015** must be completed.

This must detail the non-conformance, the required corrective action and recorded on the corrective action log.

### 3. Storage, Tracking and Recording

#### Purpose

To ensure that hazardous waste is separately according to its hazard codes and can be tracked in storage and into treatment and dispatch.

#### Storage

Storage areas are clearly identified through signage to show material type and storage capacity. Storage areas are inspected as part of daily site checks for any damage and recorded in the site diary.

Materials will be stored according to material type to ensure that incompatible materials are segregated and not stored together. Materials shall not exceed the capacity of the designated storage area.

#### Waste Types

Waste types stored on site are listed in the table below:

Waste description	EWC Code	Storage location	Storage Capacity (m <sup>3</sup> )
Waste from shredding of metal-containing waste: fluff-light fraction and dust containing hazardous substances other fractions containing hazardous substances	19 10 03* 19 10 05*	Hazardous waste storage bay in reception hall	127.6
Recovered metal: Ferrous metal Non-ferrous metal	19 12 02 19 12 03	Separated fractions within processing building in 1100 L bins and outside in 2 x 40yd <sup>3</sup> containers	62.1 62.1
Fines	19 12 11*/ 19 12 12	In storage bay	90
Heavies	19 12 11*/ 19 12 12	In storage bay	90
Combustible waste (Refuse derived fuel) - loose	19 12 10	Storage bays in processing hall	425
Combustible waste (Refuse derived fuel) - baled	19 12 10	Outside in storage bays	330

Drawing No 110/04 shows the storage locations. Waste will be stored for a maximum of 3 months to comply with the Fire Prevention Plan requirements.

The mirror entry waste codes will be subject to testing and classification.

#### Monitoring

Stored waste will be temperature monitored in accordance with Fire Prevention Plan requirements.

#### Records and Tracking

Records of materials are kept on the company file server. These are recorded on an electronic spreadsheet format. Records are kept for a minimum of 2 years.

The spreadsheet details the date of arrival on site, a description of the waste, the EWC code, physical form, the hazard codes, waste producer name and postcode, the unique operational identifier (which normally consists of the consignment note code), total weight, the assigned unique identifier and storage area. This information is gathered from the accompanying waste consignment note. It also includes a reference link to the pre-acceptance information so this can be corroborated with the incoming waste.

All incoming and outgoing material is weighed via the weighbridge and the weight recorded.



## Removal and Disposal of Waste Materials

Removal of waste materials is carried out by a registered waste carrier. All materials removed from site are accompanied by a Waste Transfer Note for non-hazardous materials and Hazardous Waste Consignment Note for hazardous waste materials. Copies of these documents are retained.

Waste materials are only sent to permitted waste facilities which are allowed to accept the type of material which is being delivered. Permitted waste facilities must hold either an environmental permit or waste exemption. Duty of care audits are carried out on receiving sites.

Where materials are removed from site a waste despatch is completed recording the unique identifier, number and type of packages and disposal site. This information provides the basis for the outgoing consignment note. The consignment note code when raised is recorded on the waste despatch form.

When materials are despatched, the competent person signs the waste despatch to confirm it is correct. The waste is recorded as off site on the spreadsheet by altering the storage location with the date off site, consignment note code, disposal site ID postcode. The spreadsheet is updated within one working day of acceptance / despatch.

## 4. Waste Treatment Operations and Maintenance Schedule

### Purpose

To provide a simple description of the treatment method and maintenance of the plant and equipment.

### Process

Mechanical treatment of metal shredder residues to extract metals for recovery. The waste stream consists predominantly of rubber, plastic, foam, textiles and metals. Waste is passed through the existing MRF to allow metal content to be removed by eddy current separators and magnets.

There is one feed waste stream which consists of the fragmentiser waste:

EWC 19 10 03\* fluff-light fraction and dust containing hazardous substances and

EWC 19 10 05\* other fractions containing hazardous substances

There are two recovered waste streams:

EWC 19 12 02 Ferrous metal

EWC 19 12 03 Non-ferrous metal

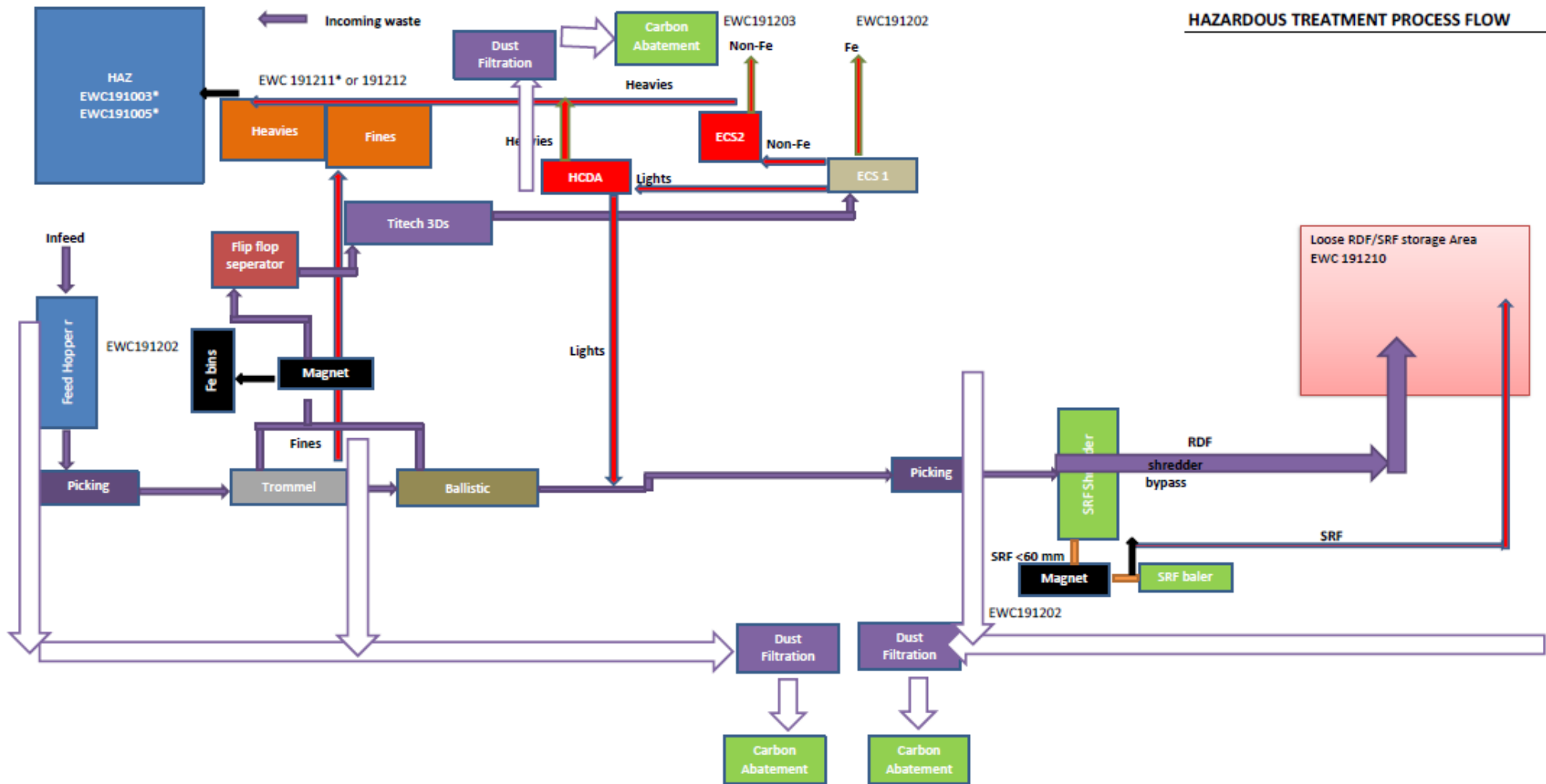
And three residual waste streams:

EWC 19 12 10 Refuse derived fuel

EWC 19 12 11\*/19 12 12 Fines (subject to testing and mirror entry classification)

EWC 19 12 11\*/19 12 12 Heavies (subject to testing and mirror entry classification)

A process flow chart is shown overleaf.



HAZARDOUS TREATMENT PROCESS FLOW

## Operations Manual

Operating instructions for the MRF equipment are stored on the company server and managed as part of the integrated management system. The components are listed in the table below:

Section	Title	Section	Title
00	Primary shredder	11	Conveyor PA Type
01	Sieve drum	12	Conveyor PAE Type
02	Ballistic separator	13	Conveyor PLS Type
03	Electromagnet overband R-SKM10 -13	14	Conveyor UP Type
04	Electromagnet overband R-SKM10 -10	15	Conveyor PK Type
05	Vibrating screen	16	SEW gear motors
06	Eddy current separator	17	Air compressor
07	Rotary valve	18	Air filters
08	Bottle piecer/Terminator	19	Dokon press
09	Electromagnet overband R-SKM10 -12	20	Konti press
10	Ferrous press	11	Conveyor PA Type

## Maintenance Schedule

The maintenance schedule is stored on the IsoSMART system and managed as part of the integrated management system. Maintenance requirements are listed as weekly, monthly, quarterly and 6 monthly. Each schedule includes a list of items to check, tasks to carry out, replacement parts to fit and sign off. The schedule is summarised in the table below.

Requirement	Equipment
Weekly Inspection	All conveyors Flip-flop screen Ferrous baler Ballistic Separator Terminator Tromel
Monthly Maintenance	Terminator Tromel Ferrous baler Electromagnetic separator Electrical cabinet Eddy current Conveyors Bottle Piecer Ballistic separator Air suction Dust filters
Quarterly Maintenance	Electromagnetic separator Terminator
6 monthly maintenance	Eddy current Electromagnetic separator Ferrous baler Electrical cabinet
Lubrication	Ballistic separator Terminator

## 5. Emissions Monitoring Plan

### Purpose

To detail monitoring that will be carried out on emissions to air from the three dust filter/carbon abatement units in the transfer station building.

### MCERTS stack emissions monitoring

To be undertaken every 6 months by an MCERTS accredited contractor. Monitoring will be carried out using the dedicated sampling ports to be built into the exhaust ducting of A1, A2 and A3 for:

Total VOCs

Ammonia

Dust (PM10, PM2.5)

### Interim VOC Monitoring

Monthly monitoring of VOCs will be carried out at monitoring points A1, A2 and A3. Emissions will be measured at the dedicated sampling ports which will be built into the ducts in line with MCERTS monitoring guidance. This will indicate if the carbon abatement units are becoming saturated and require changing.

Monthly monitoring will be undertaken using an FID monitoring probe which is owned by the operator and used for monitoring of the adjacent landfill site. The FID equipment is serviced and calibrated by an external specialist and records are retained on site.

Results will be recorded electronically for management review and assessment of effectiveness and controls and also used for comparison with MCERTS monitoring.