

Fire Prevention Plan

Operator name: Calder Valley Skip Hire Ltd Site name: Calder Valley Waste Transfer Station Site address: Rochdale Road, Sowerby Bridge, Halifax, HX6 3LL

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Contents

1	INTR	ODUCTION	1
	1.2	Site Details	1
2	USIN	G THIS FIRE PREVENTION PLAN	2
2	2.1	Location of the FPP	
	2.2	The current version of the FPP will be stored as a hard copy in the site office and a digital	
		copy will be kept on the intranet within the environmental management system (EMS) for	
		the site	2
	2.3	A copy of the FPP will also be sent to the local Fire and Rescue Service (FRS) office.	
	2.4	Who This Plan is For	2
	2.5	Testing the Plan and Staff Training	2
3	TVD	ES OF COMBUSTIBLE MATERIALS	2
5	3.1	Combustible Waste	
	3.2	Other Combustible Materials	
	-		
4		PREVENTION PLAN CONTENTS	
	4.1	Activities at the Site	
	4.2	Site Plan	
	4.3	Plan of Sensitive Receptors near the Site	4
5	MAN	AGE COMMON CAUSES OF FIRE	5
	5.1	Arson	5
	5.2	Plant and Equipment	
	5.3	Electrical Faults Including Damaged or Exposed Electrical Cables	
		Electrics Certification	
		Electrical Equipment Maintenance Arrangements	
	5.4	Discarded Smoking Materials	
		Smoking on Site Policies	
	5.5	Hot Works Safe Working Practices	
	5.6	Industrial Heaters	
		Use of Industrial Heaters	
	5.7	Hot Exhausts and Engine Parts	
	F 0	Fire Watch Procedures	
	5.8	Ignition Sources	
	5.9	Leaks and Spillages of Oils and Fuels Build-up of Loose Combustible Waste, Dust and Fluff	
	5.10 5.11		
	5.12	Deposited Hot Loads	
	-		
6		/ENT SELF-COMBUSTION	
	6.1	General Self-Combustion Measures	
	6.2	Manage Storage Time	
		Method used to record and manage the storage of all waste on site	
	0.0	Stock rotation policy	
	6.3	Monitor and Control Temperature	
		Reduce the exposed metal content and proportion of 'fines'	
		Monitoring temperature	
		Controlling temperature	
	6.4	Dealing with hot weather and heating from sunlight Waste Bale Storage	
7		AGEMENT OF WASTES	
	7.1	Managing Waste Piles	.13

		Maximum pile sizes for the waste on your site	.13
		Storing waste materials in their largest form	
	7.2	Where Maximum Pile Sizes do not Apply	
		Waste Stored in Containers	.13
8	PRE\	/ENT FIRE SPREADING	.15
	8.1	Separation Distances	
	8.2	Fire Walls Construction Standards	
	8.3	Storing Waste in Bays	.15
9	QUA	RANTINE AREA	.16
	9.1	Quarantine Area Location and Size	
	9.2	How to Use the Quarantine Area if there is a Fire	
	9.3	Procedure to Remove Material Stored Temporarily if there is a Fire	.16
10	DETE	ECTING FIRES	.17
	10.1	Detection Systems in Use	
	10.2	Certification for the Systems	.17
11	SUP	PRESSING FIRES	.18
	11.1	Suppression Systems in Use	
	11.2	Certification for the Systems	.18
12	FIRE	FIGHTING TECHNIQUES	.19
		Active Firefighting	
13	WΔT	ER SUPPLIES	21
10		Available Water Supply	
		Show the Calculation for your Required Water Supply	
14		AGING FIRE WATER	
14		Containing the Run-off from Fire Water	
15		NG AND AFTER AN INCIDENT	
	15.1 15.2	Dealing with Issues During a Fire Notifying Residents and Businesses	
	15.2		
		Making the Site Operational After a Fire	
16			
16	16.1	ITORING, REVIEW, REPORTING AND RECORD KEEPING Monitoring	
		Review, Reporting and Record Keeping	
		, i oi o	

Tables

Table 3-1. Main combustible wastes	3
Table 3-2 Other combustible and/or flammable materials	3
Table 6-1: Storage of main combustible and/or flammable waste	

Drawings

- Drawing 1Site Drainage PlanDrawing 2Ecological ReceptorsDrawing 3Luman Desenters
- Drawing 3 Human Receptors
- Drawing 4 Site Layout
- Drawing 5 Polyboom Location Plan

Appendices

Appendix A Emergency Contacts Appendix B List of Waste Codes

1 INTRODUCTION

- 1.1.1 This fire prevention plan (FPP) has been produced for the Calder Valley Waste Transfer Station (WTS) which operates under environmental permit reference EPR/SP3196ZQ. In drafting this document, consideration has been given to the applicable requirements set out within the Environment Agency Guidance on fire prevention¹ and the Environment Agency FPP template².
- 1.1.2 The objective of this document is to set out the current measures that are planned to minimise the risk of a fire starting and to ensure that should a fire occur appropriate measures are in place so that it is identified and managed effectively.
- 1.1.3 This plan is reviewed at least every 4 years or more frequently following a significant plant modification. Should significant changes be required these would be communicated to all staff.

1.2 Site Details

- 1.2.1 Calder Valley WTS is located on Rochdale Road, Sowerby Bridge, Halifax, HX6 3LL.
- 1.2.2 The quantity of hazardous waste stored on site is less than 50 tonnes at any one time and the overall permitted annual throughput of waste is 145,000 tonnes.
- 1.2.3 The operator of Calder Valley WTS is Calder Valley Skip Hire Ltd (CVSH).
- 1.2.4 In addition to holding permit EPR/SP3196ZQ, CVSH is registered as a "carrier, broker, dealer upper tier" under registration CBDU207305 (expires 29/11/2020) and has the following exemptions for the site:
 - WEX297016: S1 Storing waste in secure containers (expires 04/02/2025)
 - WEX376650: S2 Storing waste in a secure place (expires 18/07/2026)
 - WEX375894: U1 Use of waste in construction (expires 10/07/2026)

¹ Environment Agency, Fire prevention plans: environmental permits, updated 11 January 2021. Available online: https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits/fire-prevention-plans-environmental-permits/

² Environment Agency, Template for fire prevention plan: environmental permits, updated 11 January 2021. Available online: https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits

2 Using This Fire Prevention Plan

2.1 Location of the FPP

- 2.2 The current version of the FPP will be stored as a hard copy in the site office and a digital copy will be kept on the intranet within the environmental management system (EMS) for the site.
- 2.3 A copy of the FPP will also be sent to the local Fire and Rescue Service (FRS) office.

2.4 Who This Plan is For

- 2.4.1 This plan should be made available to and read by the following people:
 - Site staff.
 - Contractors working on site; and
 - Local fire officers.

2.5 Testing the Plan and Staff Training

- 2.5.1 Staff inductions will include awareness of the FPP, where it's located and when to use it. Monthly toolbox talks will include a refresher regarding the FPP content and details of any updates to it. A fire drill is conducted at the site every 6 months.
- 2.5.2 The site has designated fire wardens, who undergo fire warden training as agreed with the local FRS. At least one fire warden must always be on site when the facility is operating.
- 2.5.3 The FPP will be reviewed regularly as part of the EMS review cycle and any updates will be communicated to the relevant people. Following a fire event, a full review of the FPP will also be undertaken in conjunction with the local FRS to ensure any lessons learned are incorporated and communicated to the relevant people.

3 TYPES OF COMBUSTIBLE MATERIALS

3.1 Combustible Waste

- 3.1.1 The main focus of this FPP is the principal combustible material stored at the facility, which are the wastes, consisting of non-hazardous municipal solid waste (MSW), commercial and industrial (C&I) wastes, in various forms including two hazardous waste codes for fragmentiser fluff.
- 3.1.2 Table B-1 in Appendix B provides a list of the European Waste Catalogue (EWC) codes accepted at the site and their descriptions. Only wastes listed in this table are accepted at the site and no more than 145,000 tonnes per annum (tpa) will be accepted.

Table 3-1. Main combustible wastes

EWC Code	Description					
Residual waste/Refuse derived fuel (RDF – EWC code 19 12 10)	Residual waste which is processed at the WTS into the RDF output from the WTS activities, which will be combusted at the adjacent small waste incineration plant (SWIP) to generate heat for use at the drying plant and electricity for export to the National Grid.					
Mixed waste	Non-hazardous commercial waste to be sorted and processed at the WTS for recycling or disposal off site.					
Sorted fractions	The recyclable materials that are sorted from the mixed waste and stored separately, comprising wood, paper/card, metals, plasterboard, inert waste, green waste.					

3.1.3 See Sections 6 and 7 for further detail regarding management of the waste.

3.2 Other Combustible Materials

3.2.1 Table 3-2 provides details of the other combustible materials stored on site and provides an indication of the storage arrangements.

Table 3-2 Other combustible and/or flammable materials

Combustible material	Description	Storage
Diesel	Fuel for onsite plant and vehicles	2 x bunded tanks inside sorting shed
Oils and greases	Used for maintenance	Very small quantities
Gas cylinders	Empty LPG cylinders	Small quantities stored in garage

4 FIRE PREVENTION PLAN CONTENTS

4.1 Activities at the Site

- 4.1.1 The permitted activities carried out on the site are as follows:
 - A1 Waste Transfer Station (WTS), including the following recovery and disposal activities:
 - Recycling/reclamation of organic substances which are not used as solvents.
 - Recycling/reclamation of metals and metal compounds
 - Recycling/reclamation of other inorganic compounds
 - Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on site where it is produced)
 - Physico-chemical treatment not specified elsewhere in Annex IIA which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D8 and D10 to D12
 - Repackaging prior to submission to any of the operations numbered D1 to D13
 - Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where the waste is produced)
- 4.1.2 Wastes are delivered to the site and bulked for onward transfer. Some waste treatment activities are carried out, but this is limited to:
 - Manual sorting (picking line),
 - Trommel,
 - Shredding,
 - Drying (inert soils and aggregates)³

4.2 Site Plan

4.2.1 A site layout plan is provided in Drawing 4 and a site drainage system is provided in Drawing 1.

4.3 Plan of Sensitive Receptors near the Site

4.3.1 Drawing 2 shows the ecological receptors within 1 km of the site and Drawing 3 shows the human receptors (e.g., schools, houses, playing fields) within 1 km of the site.

³ The dryer is installed but will only be operated once the SWIP becomes operational.

5 MANAGE COMMON CAUSES OF FIRE

5.1 Arson

- 5.1.1 Site security measures seek to minimise the likelihood of unauthorised access to the site.
- 5.1.2 The site is secured to protect the public and minimise the likelihood of unauthorised access. Access to the site is limited to specified entry points as shown in Drawing 4. A steel palisade or similar security fence of around 2–3 m height has been constructed around the site boundary and CCTV cameras are in place around the site. The CCTV system is not actively monitored although recordings are held for circa 8 weeks. The CCTV covers all areas where waste is stored. The camera feed is also accessible through a mobile app if needed.
- 5.1.3 The site is always manned by a security guard out of hours. The security guard's duties include undertaking regular site walkovers. This includes checking security and the waste storage areas and monitors the temperature of the piles each hour.
- 5.1.4 In the event of a vandal or arsonist accessing the site despite security arrangements on site, sensitive areas within the site are those locations where combustible materials are stored and treated, and therefore would comprise the WTS building and external storage containers.

5.2 Plant and Equipment

- 5.2.1 Mobile plant in use at the site include: 2 x loading shovels; 360 excavator; and wagons.
- 5.2.2 Mobile plant is stored away from the WTS building, near to the Transport Office, and more than 6 m from the location of combustible wastes and from the site boundary.
- 5.2.3 A mobile shredder, trommel and magnet are operated within the WTS building. The mobile shredder is parked near the Transport Office when not in use.
- 5.2.4 Failure of plant and equipment within the waste treatment facility may have potential to cause a fire if in proximity to combustible materials. The static plant and equipment used on the site (including the drying plant and shredder) are regularly maintained and inspected to ensure that they are functioning correctly and their potential for fire initiation is minimised. The facility undergoes routine maintenance and inspection, which is non-intrusive and involves operators completing regular checks on the plant they are operating and preventative maintenance and inspection, where fully trained maintenance personnel carry out intrusive inspections. The periodicity of the maintenance and inspection is identified in site maintenance schedules.
- 5.2.5 Vehicles will be fitted with fire extinguishers. Mobile plant (including vehicles) when not in use, will be parked away from the areas where waste storage and processing operations take place. Most mobile plant will be external contractors' delivery vehicles and it will be a general provision that all vehicles delivering or recovering waste from the site must be kept in good working order. The maintenance of the HGVs is tightly regulated by the Vehicle Operators Standards Agency (VOSA). Under this government department vehicles are maintained on a scheduled basis. The onsite plant is not subject to the VOSA regime. However, the same ethos of continual scheduled servicing is used. This is a preventative approach and keeps the plant in a good working condition. The plant very rarely breaks down.
- 5.2.6 Should plant break down then there is coverage to carry on operating. There are also several plant hire companies in the local area. Should there be a plant breakdown / failure that cannot be resolved by the hiring of spare equipment and is of such magnitude that the facility cannot continue to operate properly or safely then the site will cease accepting waste. Skips that are already out will be collected and taken directly to alternative waste transfer stations.

5.3 Electrical Faults Including Damaged or Exposed Electrical Cables

5.3.1 In the event of a loss of power/heat during normal operation, the waste treatment activities will not be carried out. There are no routine process emissions which require automatic controls and plant will be manually controlled and therefore there is no significant risk associated with a loss of power to the site.

Electrics Certification

5.3.2 The electrics in place at the facility have been fully certified by a qualified electrician. Once the drying plant has been installed, its electrics will also be fully certified by a qualified electrician.

Electrical Equipment Maintenance Arrangements

5.3.3 All electrical equipment undergoes an installation test and regular PAT testing by a qualified electrician, the frequency of which depends on the equipment being tested. Inspections will be carried out in accordance with the inspection frequency assigned within the maintenance schedules and will be recorded. In setting maintenance frequencies, consideration will be given to prevention of fires.

5.4 Discarded Smoking Materials

Smoking on Site Policies

5.4.1 There is a designated smoking area on site. This is located more than 6 m away from combustible wastes and processing activities. Smoking is not permitted in any other area of the site.

5.5 Hot Works Safe Working Practices

5.5.1 Hot works are only carried out on an ad hoc basis should maintenance or repair works require this. Any hot works to be undertaken on site will be controlled by Hot Works permits which will consider appropriate preventative measures to minimise the risk of initiating a fire. The permit to work will include the provision of a fire watch after any hot works have ended and will include details of when these should be undertaken. Appropriate measures will be recorded and those undertaking the work must comply with recommendations.

5.6 Industrial Heaters

Use of Industrial Heaters

5.6.1 This is not applicable as there is no use of industrial heaters on site.

5.7 Hot Exhausts and Engine Parts

Fire Watch Procedures

- 5.7.1 When not in use, the mobile plant and other onsite vehicles are parked away from the waste storage. Mobile plant undergoes inspection which includes a check of the plant for dust on their exhausts. Where dust is found to be accumulating, the plant will be cleaned following a safe system of work. All staff are trained to check for signs of hot exhausts and build-up of dust.
- 5.7.2 A fire watch, such as a visual check of exhausts, is carried out at the end of each working day to detect signs of a fire caused by dust settling on hot exhausts and engine parts. Fire watches are

not undertaken throughout the day; however, these are completed at the end of each day. Whilst specific fire watches are not undertaken, there are always staff on site who have a view of the full area and will identify any signs of fire. All plant with exhausts is stored outside of the WTS building, away from the combustible wastes. The shredder and other treatment plant are electric so do not generate a hot exhaust. At the end of each working day, a security guard checks all the waste piles with a thermal imaging gun to ensure there are no signs of a hot load.

5.7.3 Combustible wastes are stored either in the WTS building, which is enclosed and therefore helps to delay the spread of a fire, or in the residual waste storage which is external to the WTS building but is enclosed on three sides and above. In addition, the separation distance of at least 6 m between these wastes and any hot exhausts or engine parts minimises the chances of a fire occurring. Build-up of dust is prevented as set out in the site's dust management plan.

5.8 Ignition Sources

- 5.8.1 Any naked flames, space heaters and other sources of ignition will be kept at least 6 m away from combustible and flammable waste.
- 5.8.2 The waste storage and treatments areas can be observed from the control room, and it is likely that any fire would be identified quickly.
- 5.8.3 Hot works, exhausts and engine parts are dealt with in 5.1.1, 5.5 and 5.7 above.

5.9 Leaks and Spillages of Oils and Fuels

- 5.9.1 All oils and fuels kept on site are stored in bunded containers. Site staff are trained in transfer and handling procedures and will oversee any filling of containers or front loader.
- 5.9.2 Spill kits are located in the site office and staff are trained in the spillage procedures as set out within the management system. CVSH mobile plant and onsite vehicles are checked for signs of fuel leakage prior to closing the site each day.

5.10 Build-up of Loose Combustible Waste, Dust and Fluff

5.10.1 Daily site checks are carried out which include inspecting the site for build-up of loose combustible waste, dust and fluff and arranging cleaning if needed. A dust management plan is in place for the site and, together with the procedures in the EMS, sets out the management measures in place to minimise build-up of loose materials at the site.

5.11 Reactions Between Wastes

- 5.11.1 Based on the list of wastes accepted at the site, there will be no incompatible waste types accepted. Waste types are segregated at the site so avoid contact with materials they could react with. Site personnel are available on site to routinely check waste deposited to remove or arrange removal of any wastes deposited in the incorrect area.
- 5.11.2 Non-conforming wastes that have been 'hidden' in the skip are unlikely to cause an adverse environmental reaction. They can be handled safely on-site e.g., TVs, fridges, tyres, bonded asbestos, tins of paint etc. There is the potential for hidden tins of solvents in skips etc. These will be removed where seen and quarantined. Any spillages will be soaked up using site spill kits. Immiscible solvents entering the drainage system will be trapped by the oil interceptor and prevented entering the sewer. The site does not store large amounts of waste on site and has a quick turnaround for storage. This further minimises the probability any risks. The waste stored outside is mainly stored in skips, but a bund is between storage areas and the river to protect it.
- 5.11.3 Waste acceptance procedures are set out within the operating procedures for the site. A vehicle entering the site is received at the weighbridge, where it is checked to ensure that it holds a Waste

Carriers Licence and that the (electronic) Transfer Note is in order. It is then weighed, following which it is allowed to proceed to the WTS building. The vehicle enters the enclosed hall where it is directed to a designated unloading bay and its load discharged into the WTS building.

5.11.4 Waste deliveries are only accepted from authorised carriers and all heavy goods vehicles entering the site report to the weighbridge gatehouse before being allowed to enter the site. Details of all waste entering the facility is recorded in a tracking system. In addition, frequent inspections of waste are undertaken in the reception hall and any non-compliant waste would be quarantined in a contained service area where it would remain until alternative disposal arrangements are in place. The quarantine area is shown on Drawing 4.

5.12 Deposited Hot Loads

- 5.12.1 Waste acceptance procedures are in place and include procedures for checking for and management of hot loads. These procedures will seek to avoid hot loads being deposited in the waste storage areas.
- 5.12.2 If on inspection a load is found to be burning it should be refused admission to the site. The site manager must be notified. Details of the said load (name, registration number, type of load, produces) should be recorded on a waste rejection form and the Environment Agency informed.
- 5.12.3 If the load has entered the site prior to deposit and without risk to personnel, it should be redirected away from any storage areas where the material can be extinguished.
- 5.12.4 Should the fire get out of control or appears to be getting worse, the emergency services should be called out. Then inform the Environment Agency.
- 5.12.5 After the material has been extinguished it should be quarantined and left for 48 hours until accepted for disposal. The temperature will be checked prior to acceptance. The waste will be monitored during this 48-hour period.
- 5.12.6 A dedicated hot load quarantine area is shown on Drawing 4. The quarantine area is located at least 6 m from the site perimeter, any buildings, mobile plant storage and other combustible/flammable materials.

6 PREVENT SELF-COMBUSTION

6.1 General Self-Combustion Measures

- 6.1.1 Materials such as residual waste may be at risk of self-combustion if stored for more than 3 months. Therefore, potential at-risk areas would be areas in which these materials are stored i.e., the WTS building. However, there are management procedures in place to ensure that, where practicable, materials will be maintained on a first in first out basis. Mixed waste and residual waste will not be stored on site for more than 7 days, thus negating the risk. Sorted fractions of fragmentisation fluff may need to be held for a longer period while awaiting the outcome of WM3 testing. Ordinarily, storage is not envisaged to be longer than 1 month.
- 6.1.2 Waste management and acceptance procedures will be established to ensure that maximum storage times are complied with.

6.2 Manage Storage Time

Method used to record and manage the storage of all waste on site

- 6.2.1 The main combustible materials stored on site are the wastes. Site waste acceptance procedures are in place, separate to this FPP, as part of the site management procedures. These procedures set out the methods for recording of waste delivered to site and for tracking of waste within the facility.
- 6.2.2 Table 6-1 provides details of the main combustible wastes to be stored on site and provides an indication of the total amounts and form of waste stored, as well as the maximum storage time and the method for management.

Combustible material	Form	Maximum storage capacity (tonnes)	Typical quantity stored daily (tonnes)	Expected maximum storage time under normal operation	How the material is stored	Maximum dimensions of pile or container	Maximum volume stored at any one time (m ³)
General waste	Non- hazardous commercial waste	100	38	7 days	Bunker in WTS building	6 m width x 12 m length x 4 m height	288
Plasterboard	Sorted plasterboard fraction of incoming waste	50	20	7 days	Bunker in WTS building	3.2 m width x 8 m length x 4 m height	102.4
Residual waste	Processed residual waste, including fines (refuse derived fuel)	100	20	7 days	Residual waste shed enclosed on three sides and above	6 m width x 6 m length x 4 m height	144
Paper/cardboard	Sorted paper fraction of incoming waste	3	3	7 days	40-yard skip outside on hardstanding	2.5 m height x 6.1 m length x 2.4 m width	36.6
Metals	Ferrous and non-ferrous metals	12	4	7 days	40-yard skip outside on hardstanding	2.5 m height x 6.1 m	36.6

Table 6-1: Storage of main combustible and/or flammable waste

Combustible material	Form	Maximum storage capacity (tonnes)	Typical quantity stored daily (tonnes)	Expected maximum storage time under normal operation	How the material is stored	Maximum dimensions of pile or container	Maximum volume stored at any one time (m ³)
	sorted from incoming waste					length x 2.4 m width	
Plastic	Plastic sorted from incoming waste			7 days	40-yard skip outside on hardstanding	2.5 m height x 6.1 m length x 2.4 m width	36.6
Green waste	Green waste fraction from incoming waste	7	3	7 days	40-yard skip outside on hardstanding	2.5 m height x 6.1 m length x 2.4 m width	36.6
Wood	Wood fraction from incoming waste	20	8	7 days	40-yard skip outside on hardstanding	2.5 m height x 6.1 m length x 2.4 m width	146.4
Fragmentisation fluff	Metal shredder residue	50	Up to 50	7 days (could be longer for sorted fractions awaiting WM3 testing outcome)	Pile within the WTS building.	5 m diameter x 3 m high	175
Sorted fractions of fragmentisation fluff awaiting WM3 outcome	fraction, of Plastic co fraction, to	action, of specific tonnes in Plastic containers total (one action, to be load of Residual confirmed frag fluff,	tonnes in total (one load of frag fluff,		Separate metal containers outside the WTS building and	Metal fraction: 40- yard skip, 2.5 m height x 6.1 m length x 2.4 m width	36.6
					under cover	Plastic fraction: 3- yard mini-skip	2.7
						Residual fluff: 3-yard mini- skip	2.7

6.2.3 Combustible wastes will normally be stored for up to a few days before being processed, with the exception of sorted fractions of fragmentisation fluff awaiting the outcome of a WM3 test. Although it could be stored for up to 7 days, processed residual waste (RDF) will typically be stored for no more than half a day, Monday to Friday, before being transported from the WTS building to the adjacent small waste incineration plant (SWIP) building⁴ or removed off site for incineration or other off-site management facility. This is reflected on Drawing 4. Waste volumes build-up gradually over the course of the working week whilst deliveries are taking place, but every effort is made to reduce storage volumes to low levels by the time the site closes at 14.00 on Saturdays and will, therefore, be at low volumes when the site opens again on Monday morning. As far as practicable waste will be processed in rotation in accordance with waste management procedures. Prior to a planned shutdown, stored waste levels would be run down until the storage area is empty and the suppliers notified well in advance in order to organise the supply accordingly. During an unplanned shutdown, the suppliers will be notified immediately to stop waste deliveries. The waste already stored on site will remain in the storage building for the duration of the unplanned shutdown. If required, the waste can be extracted from the WTS building using the

⁴ Once this is permitted and operational.

front-loader vehicles to deliver the waste to the nonconforming waste quarantine area, from which it can then be loaded onto lorries for transport off site.

6.2.4 The site also dries soils and inert materials, which are transported off site once dried. They will be stored in the area shown on Drawing 4 for a maximum of 7 days after drying, although much shorter turnarounds are expected.

Stock rotation policy

6.2.5 Quantities of incoming and outgoing material for the site are recorded in metric tonnes utilising the site weighbridge; therefore, an accurate measurement of site throughput is obtained. The site waste management procedures set out the methods for recording of waste delivered to site and for tracking of where waste is sent within the facility. This information is recorded and stored electronically. As set out in paragraph 6.2.3, waste will be processed in rotation in accordance with waste management procedures, as far as is practicable.

6.3 Monitor and Control Temperature

Reduce the exposed metal content and proportion of 'fines'

- 6.3.1 In the waste transfer station, wastes are segregated, and metals and other recyclables are separated out for recycling. Metal is segregated from the other wastes and stored in a skip.
- 6.3.2 A dust management plan (DMP) has been produced, which sets out the measures in place at the site to minimise the build-up of loose, fine materials such as dust.
- 6.3.3 Waste, other than sorted fractions of fragmentisation fluff awaiting the outcome of WM3 testing, will normally not be stored for longer than 7 days, thereby reducing the likelihood of significant temperature increases.

Monitoring temperature

6.3.4 CCTV monitoring is provided across the site with feedback to the control room. In addition, during the working day as a matter of course site operatives are required to note any general observations of signs of material heating immediately, as a part of their working routine.

Controlling temperature

6.3.5 Temperature is controlled by reducing the exposed metal content as set out in 6.3.1, maintaining relatively short storage times as detailed in section 6.2 and screening combustible/flammable materials from sunlight through storage within an enclosed building. Any heat generated from treatment such as shredding is released so that the waste is cool before it is transferred elsewhere.

Dealing with hot weather and heating from sunlight

- 6.3.6 Most combustible/flammable waste is stored within the residual waste storage which is external to the WTS building and enclosed on three sides and above, which will protect the waste materials from heating due to higher temperatures or sunlight.
- 6.3.7 The external containers are not covered. However, wastes in these containers are only stored for 24-48 hours before being removed. Waste wood is removed daily. Prior to a weekend or bank holiday the skips would be emptied to minimise storage times. These practices occur year-round and are not just limited to periods of hot weather.

6.4 Waste Bale Storage

6.4.1 This is not applicable as baled waste is not accepted at the site.

7 MANAGEMENT OF WASTES

7.1 Managing Waste Piles

Maximum pile sizes for the waste on your site

- 7.1.1 Loads containing recyclable materials are directed to a designated unloading area in the enclosed WTS building. Waste is split into 2 main stockpiles within the WTS building, one for inert waste and one for mixed waste. A load containing only inert waste will upon deposit be moved to the inert storage bunker. A mixed load upon deposit will be sorted so as to segregate out all recyclables for separate storage and, in some cases, processing. What is left after that segregation process, the non-recyclable residual waste, is then moved to the general waste storage bunker to await processing. Under normal operation, waste storage times are relatively short as the materials are sorted, processed and transferred to the next stage (either sent off site for recycling or disposal, or to the adjacent small waste incineration plant SWIP). The pile sizes will therefore be minimised and kept well below the maximum pile sizes for each type of waste. For all piles, the height will not exceed 4 metres but are normally substantially lower in height. As a maximum, pile will each be 6m x 6m x 4m, i.e., the maximum combined volume of the two piles will be approx. 288 m³ which is much smaller than the lowest of the maximum pile size allowed for residual waste⁵ (450 m³).
- 7.1.2 There are four bunkers within the WTS building, three of which store inert waste, general waste (RDF) and plasterboard respectively and are located at the far (western) end of the building. The inert waste storage bunker is at maximum $6.4 \times 8 \times 4 = 204.8 \text{ m}^3$ however inert waste is not combustible so is not included within this assessment. The general waste (RDF) bunker is at maximum approximately 288 m³ and the plasterboard bunker is a maximum of 102.4 m³. A fourth storage area for fines is located adjacent to the other bunkers. This storage area is, at maximum, $8m \times 4m \times 4m = 448 \text{ m}^3$.
- 7.1.3 In combination, these piles, although in separate bays, exceed the maximum pile size⁵ for residual waste of 450 m³. However, the waste is stored for a relatively short time of a maximum of seven days, thereby reducing the chance of temperatures rising within the wate piles. During this time the waste piles are subject to regular checks around the clock as described in section 5.

Storing waste materials in their largest form

7.1.4 Waste stored in the WTS building will be in their largest form (i.e., how they arrived on site). Following sorting, some waste is shredded and deposited into its designated storage area prior to further treatment or disposal off site or at the adjacent small waste incineration plant (SWIP).

7.2 Where Maximum Pile Sizes do not Apply

Waste Stored in Containers

Types of containers you are using

7.2.1 The combustible materials to be stored in containers include wood, metal, green waste, plastic, paper/cardboard and sorted fractions of hazardous fragmentisation fluff. These are stored in up to 11 separate standard 40 cubic yard skips, and 3-yard mini-skips, more than 6 m away from the WTS

⁵ Note there is no maximum pile size for residual waste or plasterboard so the maximum for RDF and SRF has been used.

building. The approximate dimensions of a 40 cubic yard skip⁶ are 2.5 x 6.1 x 2.4 m. The combined volume of the four skips is approximately 293 m³ which is lower than the most conservative maximum for wood, metal, green waste, plastic and/or paper/cardboard. The combined volume of the six skips is approximately 220 m³ which is much lower than the most conservative maximum for wood, metal, green waste and/or paper/cardboard. The maximum pile size for green waste is 450 m³ and the maximum pile size for loose wood, loose metal or loose paper (more than 150 mm) is 750 m³. The combined maximum storage of hazardous fragmentisation waste is 42 m³. Therefore, the combined volume of the 6 skips plus the sorted fragmentisation waste amounts to less than half of the maximum pile sizes for any of the 4 waste types that could be stored in the containers.

Accessibility of containers

7.2.2 Skips are open at the top. Enclosed/sealed containers such as for paper and textiles can be opened up for easier access to a fire inside. All staff are trained in how to do this and any necessary tools (e.g., keys) are kept in the site office. Therefore, each container is accessible to site staff or the FRS so any fire inside can be put out.

Moving containers in a fire

7.2.3 In the event of a fire, on site vehicles will be deployed to move the containers as soon as is reasonably practicable to prevent the fire spreading. Any containers affected by a fire or containing a fire will be dealt with where they are, and the unaffected containers moved at least 6 m away. The vehicles will be stored at least 6 m from the fire.

⁶ <u>https://www.mickgeorge.co.uk/skip-hire/skip-size-guide#</u>

8 PREVENT FIRE SPREADING

8.1 Separation Distances

- 8.1.1 The spread of a fire will be prevented by using the correct separation distances, as follows:
 - Combustible waste piles are stored with a separation distance of at least 6 m.
 - Containers are stored more than 6 m from the site boundary and from the WTS building.
 - All other wastes are stored within the WTS building.
 - Hot loads will be moved to the quarantine area, which is located more than 6 m from any of the above. Site vehicles will be stored more than 15 m from a fire.
- 8.1.2 There is a separation distance of considerably more than 6 m between the area containing the three western bunkers and the location of the residual waste bunker. This is also true of the separation between the bunkers and the external storage containers. Separation of paper/cardboard, green waste, plastics and wood in the containers is achieved by the container walls. The inert waste, general waste and plasterboard bunkers are also separated by 2.5 m steel walls.
- 8.1.3 The hazardous fragmentisation fluff is stored within the WTS building, separate and at least 6m from any non-hazardous waste as indicated in the site plan on Drawing 4. Sorted fractions of fragmentisation waste that have not been determined non-hazardous by a WM3 test will be stored on a concrete surface under cover in separate metal containers (a 40-yard skip and two 3-yard mini-skips). Again, the hazardous waste will be separated from non-hazardous waste.

8.2 Fire Walls Construction Standards

- 8.2.1 Compartmentation in buildings can help to reduce the level of hazard from fire through reducing the overall fire size. The maximum floor area in a compartment is considered to be the WTS building which, at approximately 1,056 m², is well below the maximum of 4,000 m² as set in ACE guidance. The WTS building does not have compartments other than the bunkers; it is a single large room. The walls between the three storage bunkers have an 8-inch RSJ and comprise on each side 4 mm thick steel.
- 8.2.2 The general construction materials for the buildings will be tested to the highest standards possible under UK and European test methods such that these materials will provide an equivalent, if not better level of safety than that required to comply with NFPA 850 and the Building Regulations.

8.3 Storing Waste in Bays

8.3.1 This is not applicable as there is no waste stored in bays on site.

9 QUARANTINE AREA

9.1 Quarantine Area Location and Size

- 9.1.1 The location of the quarantine area is indicated on Drawing 4. The quarantine area will be the inert waste stockpile. The dimensions are 7m x 7m x 4m height.
- 9.1.2 The quarantine area is large enough to both:
 - Hold at least 50% of the volume of the maximum volume of waste stored on site (the general waste bunker and plasterboard bunker at 390 m³) on the site.
 - Have a separation distance of at least 6 m around the quarantined waste.

9.2 How to Use the Quarantine Area if there is a Fire

- 9.2.1 The quarantine area would be used only for segregation of incoming hot loads or loads within the waste storage area. When a hot load is identified, it will be removed as quickly as possible and isolated in the quarantine area.
- 9.2.2 The quarantine area is large enough to hold at least 50% of the maximum volume of combustible waste stored on site, when taking into account those separated by steel walls or distances of more than 6 m, as detailed in Table 6-1. In the event of a fire, waste will be moved to the quarantine area as soon as practicable within one hour of the fire starting. The quarantine area will be located where the inert waste stockpile is identified on Drawing 4 and is located over 6 m from any site building or boundary.

9.3 **Procedure to Remove Material Stored Temporarily if there is a Fire**

9.3.1 This is not applicable as the quarantine area will be kept clear at all times. Although the area is labelled as the inert waste stockpile, it is only used as an area to deposit the waste, after which it is immediately moved to the relevant bunker.

10 DETECTING FIRES

10.1 Detection Systems in Use

- 10.1.1 The WTS building is equipped with heat and smoke detectors which are monitored 24/7 off site by First County Monitoring. If a fire is detected via the heat and smoke detectors, for example out of hours, First County Monitoring will call the FRS to attend site. If detected by staff during operational hours, they will call the FRS.
- 10.1.2 As part of the daily inspections, staff check for any evidence of fire and fire risks on the site. The CCTV does not have thermal imagery detection. The site has 24-hour security in place. If out of hours, the security guard will arrange access for the FRS and will contact the site operational contact in the event of a fire. The Security Guard will be made aware of the relevant contact numbers, as set out in the FPP, and will be made aware of where the FPP is located, In the event of a fire, the security guard or site contact would direct the FRS to the FPP.
- 10.1.3 Fire detection and protection systems have been installed in all electrical and instrument rooms and are tested to current standards.

10.2 Certification for the Systems

10.2.1 The design, installation and maintenance of the automated systems are covered by a UKASaccredited third-party certification scheme.

11 SUPPRESSING FIRES

11.1 Suppression Systems in Use

- 11.1.1 The fire detection system in conjunction with the suppression system will seek to ensure a fire is put out quickly and with a view that where possible a fire is extinguished within 4 hours. Fire extinguishers are located inside all buildings and the office on the site and mains water is available at the WTS building for firefighting purposes. The electric shredder has a built-in fire suppression system that empties foam into the unit to put out a fire if detected by the automatic sensor.
- 11.1.2 The suppression to be used at the site is operated, inspected and maintained by the FRS. Out of hours, the security guard will only be present to provide access and will not attempt to suppress the fire.
- 11.1.3 A suppression system may not extinguish a fire, although it may prevent a fire spreading and allow the fire to be fought effectively by the fire and rescue service.

11.2 Certification for the Systems

11.2.1 This is not applicable as there are no automated suppression systems in the WTS, save that of the electric shredder which will be covered by a UKAS-accredited third-party certification.

12 FIREFIGHTING TECHNIQUES

12.1 Active Firefighting

- 12.1.1 The site has been designed to allow for active firefighting. This will help allow a fire to be extinguished within 4 hours.
- 12.1.2 On activation of any type of fire detector or manual call point an initial first stage alarm will automatically be initiated. Visual and audible indication will be provided at the fire alarm panel including indication of the zone in which the detection has occurred.
- 12.1.3 The fire alarm sounders will also be activated with a distinctive first-stage intermittent warning sound and administration staff or staff with no fire-fighting training will evacuate the building with the exception of staff manning the Control Room.
- 12.1.4 Active firefighting means having the resources available at all times to fight a fire including in the event of a fire. The resources available at the site include:
 - Mobile plant (JCBs) for movement of waste.
 - Staff trained in fire procedures (see 2.5).
 - Available water supply (see section 12.1).
 - Finances.
- 12.1.5 The following process will be adhered to in the event of a fire on site:
 - On identification immediately report it to the site office. The acting site manager must be informed immediately.
 - If the fire is in the main office, the site garage or away from waste / product storage, then call out the fire brigade Then if possible, and without risk to personnel, tackle the fire using the nearest appropriate fire extinguishers.
 - If the fire is within a waste storage area, then if possible, and without risk to personnel ensure any adjoining tanks are isolated. Then if possible, and without risk to personnel, tackle the fire using the nearest appropriate fire extinguishers. If the fire is uncontrolled then vacate the site.
 - Ensure all site personnel and visitors are accounted for and removed to a safe location. Prevent further access to the site until the emergency is over. Ensure access is clear for emergency services.
 - When all personnel have been accounted for and the emergency services have been informed, contact the Environment Agency to inform them of the situation.
- 12.1.6 The responsibilities of each role on site are set out in CV02 (Emergency Action Plan) of the EMS. The main fire alarm panel will be located in the Control Room with a repeater panel located in the main office.
- 12.1.7 If it was obvious that site operatives would be unable to immediately extinguish the fire and the second-stage alarm was activated, a decision would be made by the appropriate person to also contact the local Fire and Rescue Service (FRS) who would attend the site to carry out the fire fighting. Access routes for vehicles and the FRS are shown on Drawing 4.
- 12.1.8 Emergency contact procedures are in place with the night security personnel.
- 12.1.9 The firefighting techniques to be used at the site to extinguish a fire include:
 - Separating hot loads from combustible materials by use of the quarantine area.
 - Applying water to cool unburned material and other hazards.

- Quenching burning material with fire extinguishers or hoses.
- 12.1.10 Staff are suitably trained in the use of firefighting equipment and will be supervised by the FRS in the event of a fire. During a major fire, the FRS will lead and be supported by site staff.
- 12.1.11 If the FRS were required, fire water supplied from the water sources identified in the section below would then be used to extinguish the fire, which would be facilitated by the attending on-site FRS personnel and fire appliances.
- 12.1.12 Given the available firefighting techniques and means of detecting a potential fire, it is expected that a fire would be extinguished within 4 hours.

13 WATER SUPPLIES

13.1 Available Water Supply

- 13.1.1 The site water supply comes from a public water supply connection and is accessed via mains water supply. The mains water will primarily be used to supply the hoses for use in a small fire event.
- 13.1.2 The closest fire hydrant is located at the top of the access road, which is located less than 100 m from the site entrance. This hydrant has been used by the FRS during a previous fire event at the site. The hydrant is maintained by West Yorkshire Fire and Rescue Service (FRS) in conjunction with Yorkshire Water and was inspected on 03/03/2021. The hydrant conforms to BS 750.
- 13.1.3 The FRS has stated that they do not deem the river Ryburn to be a suitable supply of water for the site due to access and seasonal fluctuations. In the event that the hydrant was not sufficient to fight the fire, the FRS would look to use any strategic hydrants or other water sources that are further afield.
- 13.1.4 Kerbing/walls/bunds will be maintained along boundary with riverbank to ensure no pathway exists for firewater to enter the river.

13.2 Show the Calculation for your Required Water Supply

Maximum volume in cubic metres	Water supply needed in litres per minute	Overall water supply needed over 3 hours in litres	Total water available on site in litres
838 m ³ (general waste, plasterboard, and fines bunkers)	838 x 6.67 = 5,590	5,590 x 180 = 1,006,200	None stored on site – see section 13.1

14 MANAGING FIRE WATER

14.1 Containing the Run-off from Fire Water

- 14.1.1 Approximately 200 m of water-filled polybooms will be purchased for use during an incident. The proposed timescale for installing these is 6 months. These can be deployed at different locations relative to where the fire is. A site plan showing suggested placement of polybooms is provided as Drawing 5. The placement has ensured the areas where waste is stored are surrounded and has taken into account that the topography of the site slopes very slightly towards the border with the river Ryburn. Procedures will be in place for sampling and testing of the water and appropriate disposal arrangements will be in place. The procedure for handling, testing and disposal of fire waters is:
 - It will be tested for pH and chemical oxygen demand (COD).
 - It is expected that fire water will be contaminated and will therefore be tankered off site for disposal by a third party and will not be discharged to surface water or foul sewer.
- 14.1.2 Penstock valves will be installed in the site drainage system within a proposed timescale of 6 months, which will be shut in the event of a fire to contain the run-off from fire water to prevent pollution of the environment. The interceptor has a capacity of 20,000 litres. The capacity of the pipework is unknown. The external areas will be covered with concrete which will impede fire water entering the ground. For these reasons and with the use of the polybooms described above, the risk of overflow / spill out is considered insignificant and fire waters will be contained. With the use of 200 m of polybooms to contain firewater on the site which could cover an area of at least 2500 m² (assuming 50 m x 50 m square and that existing walls or kerbing are not used to increase the contained area), together with containment within the WTS building and within the drainage system through the use of penstock valves, it is considered that the site will be able to contain the volume of water identified in the water supply calculation, i.e. 468,234 litres to provide water to cover the largest pile size for 3 hours.
- 14.1.3 A drainage plan is provided in Drawing 1.

15 DURING AND AFTER AN INCIDENT

15.1 Dealing with Issues During a Fire

- 15.1.1 In the event of a fire, the Site Manager will assess whether the site can remain open. If the site is closed, site users will be directed to alternative facilities nearby until the site is re-opened.
- 15.1.2 The primary access to the site is via the main access road with entrance gate. Drawing 4 identifies the vehicle access route for external fire services that can be used in the event of a fire.
- 15.1.3 A list of emergency contacts is provided in Appendix A.

15.2 Notifying Residents and Businesses

- 15.2.1 There are minimal direct receptors within the vicinity of the site who may be affected by a fire. The closest receptor is the Spring Bank Industrial Estate located approximately 75 m to the east. The closest residential receptor is approximately 100 m to the north of the site.
- 15.2.2 The Site Manager will notify nearby businesses and residents of a major fire via the following routes:
 - Communication with the Liaison Group established pursuant to planning condition.
 - Press release.
 - Face-to-face communication (where possible).
 - Social media updates.
- 15.2.3 The criteria for a major fire would be agreed with the FRS.

15.3 Clearing and Decontamination After a Fire

15.3.1 Following a fire, the facility will be cleaned and decontaminated, with any contaminated fire water removed by a specialist contractor to a suitably licensed facility. Once the drainage system has been confirmed clear of contaminated fire water, the penstock valves will be re-opened. Any fire-damaged equipment will be removed or replaced. The quarantine area will be cleared of all containers and/or waste. Any affected waste will be removed off site for treatment or disposal by a third party.

15.4 Making the Site Operational After a Fire

- 15.4.1 After a fire, the following steps must be taken before the site can become operational again:
 - Site has been cleaned and decontaminated.
 - In the case of a pollution event, the EA has been notified.
 - All storage and access areas have been clear.
 - Any fire-damaged equipment has been removed and replaced.
 - The quarantine area has been cleared.
 - The site manager has agreed with the FRS that the site can operate again.
- 15.4.2 A full review of the FPP will be carried out in conjunction with the FRS to ensure any lessons learned are carried forward. The FPP will be updated to incorporate any lessons learned.

16 MONITORING, REVIEW, REPORTING AND RECORD KEEPING

16.1 Monitoring

- 16.1.1 Staff working within the site are required to be vigilant of any sign of self-combustion or hot loads.
- 16.1.2 The site undertakes periodic fire drills, at least every 6 months. These drills may be co-ordinated with the local FRS team and are used to test fire response procedures. An important part of any such test is to identify if fire procedures are effective and whether there are any improvements which could be put in place. Should improvements be identified, a programme of action with defined responsibilities and timescales will be set.
- 16.1.3 Routines are established for regular checks on all firefighting equipment to ensure they remain available and in good working order should a fire incident occur.
- 16.1.4 The Site Manager at the time will act as incident controller with supervision from the local FRS. The incident controller is responsible for ensuring that the FPP guidance is followed during an incident.

16.2 Review, Reporting and Record Keeping

- 16.2.1 As part of the site management systems this FPP is incorporated within the audit programme. The frequency of audits is set within the site audit programme. A record of any audit is made and stored. Should non-conformances be identified these are handled in accordance with the site non-conformance procedure which includes appropriate follow-up and a record of the outcome alongside any improvements identified. Where improvements are identified a programme of action with defined responsibilities and timescale are set.
- 16.2.2 The FPP will be reviewed regularly as part of the EMS review cycle and any updates will be communicated to the relevant people. Following a fire event, a full review of the FPP will also be undertaken in conjunction with the local FRS to ensure any lessons learned are incorporated and communicated to the relevant people and the FPP will be updated to incorporate any recommendations made, as set out in paragraph 15.4.2.
- 16.2.3 Reporting requirements are defined within incident reporting procedures. These requirements incorporate reporting requirements to the EA (as specified within the permit), to the HSE and other interested parties.
- 16.2.4 The management systems include procedures for record keeping. Any record generated in relation to this plan is held in accordance with this procedure.

Drawing 1 Drawing 2 Ecological Receptors Drawing 3 Human Receptors

Drawing 4 Site Layout

Drawing 5 Polyboom Location Plan



Appendix A

Emergency Contacts

Contact	Address	Contact Details
Local Police (West Yorkshire	West Yorkshire Police, Richmond	Emergency – 999 or 112
Police)	Close, Halifax, HX1 5TW	Non-emergency – 101
Local Fire Service (West Yorkshire Fire and Rescue	Halifax Fire Station, Skircoat Moor	Emergency – 999
Service)	Road, Halifax, HX1 3JF	Non-emergency – 01422 386820
Local Hospital with A&E	Salterhebble, Halifax, West Yorkshire,	Emergency – 999
(Calderdale Royal Hospital)	HX3 0PW	Non-emergency – 01422 357171
Local EA Office (Leeds)	Lateral, 8 City Walk, Leeds, LS11 9AT	03708 506 506
	Calder Valley Skip Hire, Belmont	Tel: 01422 833333
Operational Contact (Joe Sawrij)	Industrial Estate, Rochdale Road,	Email:
	Sowerby Bridge, Halifax, HX6 3LL	joesawrij@caldervalleyskiphire.co.uk

Appendix B

List of Waste Codes

EWC Code	Description
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals
01 01	Wastes from mineral excavation
01 01 01	Wastes from mineral metalliferous excavation
01 01 02	Wastes from mineral non-metalliferous excavation
01 03	Wastes from physical and chemical processing of metalliferous minerals
01 03 06	Tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 09	Red mud from alumina production other than the wastes mentioned in 01 03 07
01 04	Wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	Waste sand and clays
01 04 11	Wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	Tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	Wastes from stone cutting and sawing other than those mentioned in 01 04 07
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	Plant-tissue waste
02 01 04	Waste plastics (except packaging)
02 01 07	Wastes from forestry
02 01 10	Waste metal
02 02	Wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 03	Materials unsuitable for consumption or processing
02 03	Wastes from fruit, vegetable, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 04	Materials unsuitable for consumption or processing
02 04	Wastes from sugar processing
02 04 01	Soil from cleaning and washing beet
02 04 02	Off-specification calcium carbonate

Table B-1. European Waste Catalogue Codes accepted at Calder Valley WTS

02 05	Wastes from the dairy products industry
02 05 01	Materials unsuitable for consumption or processing
02 06	Wastes from the baking and confectionery industry
02 06 01	Materials unsuitable for consumption or processing
02 06 02	Wastes from preserving agents
02 07	Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	Wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	Wastes from spirits distillation
02 07 04	Materials unsuitable for consumption or processing
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 01	Wastes from wood processing and the production of panels and furniture
03 01 01	Waste bark and cork
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	Wastes from pulp, paper, and cardboard production and processing
03 03 01	Waste bark and wood
03 03 07	Mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	Wastes from sorting of paper and cardboard destined for recycling
03 03 10	Fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
04	Wastes from the leather, fur and textile industries
04 01	Wastes from the leather and fur industry
04 01 08	Waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	Wastes from dressing and finishing
04 02	Wastes from the textile industry
04 02 21	Wastes from unprocessed textile fibres
04 02 22	Wastes from processed textile fibres
06	Wastes from inorganic chemical processes
06 09	Wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes
06 09 02	Phosphorous slag
06 09 04	Calcium-based reaction other than those mentioned in 06 09 03
06 11	Wastes from the manufacture of inorganic pigments and opacifiers
06 11 01	Calcium-based reaction wastes from titanium dioxide production
07	Wastes from organic chemical processes
07 02	Wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	Waste plastic
09	Wastes from the photographic industry
09 01	Wastes from the photographic industry
09 01 07	Photographic film and paper containing silver or silver compounds
09 01 08	Photographic film and paper free of silver or silver compounds
09 01 10	Single-use cameras without batteries

09 01 12	Single-use cameras containing batteries other than those mentioned in 09 01 11
10	Wastes from thermal processes
10 01	Wastes from power stations and other combustion plants (except 19)
10 01 01	Bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 05	Calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	Calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	Bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 19	Wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 24	Sands from fluidised beds
10 02	Wastes from the iron and steel industry
10 02 01	Wastes from the processing of slag
10 02 02	Unprocessed slag
10 02 08	Solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	Mill scales
10 02 14	Sludges and filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	Other sludges and filter cakes
10 03	Wastes from aluminium thermal metallurgy
10 03 02	Anode scraps
10 03 05	Waste alumina
10 03 16	Skimmings other than those mentioned in 10 03 15
10 03 18	Carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10 03 24	Solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 26	Sludges and filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28	Wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 30	Wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 04	Wastes from lead thermal metallurgy
10 04 10	Wastes from cooling-water treatment other than those mentioned in 10 04 09
10 05	Wastes from zinc thermal metallurgy
10 05 01	Slags from primary and secondary production
10 05 09	Wastes from cooling-water treatment other than those mentioned in 10 05 08
10 05 11	Dross and skimmings other than those mentioned in 10 05 10
10 06	Wastes from copper thermal metallurgy
10 06 01	Slags from primary and secondary production
10 06 02	Dross and skimmings from primary and secondary production
10 06 10	Wastes from cooling-water treatment other than those mentioned in 10 06 09
10 07	Wastes from silver, gold and platinum thermal metallurgy
10 07 01	Slags from primary and secondary production
10 07 02	Dross and skimmings from primary and secondary production
10 07 03	Solid wastes from gas treatment
10 07 05	Sludges and filter cakes from gas treatment
10 07 08	Wastes from cooling-water treatment other than those mentioned in 10 07 07

10 08	Wastes from other non-ferrous thermal metallurgy
10 08 09	Other slags
10 08 11	Dross and skimmings other than those mentioned in 10 08 10
10 08 13	Carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	Anode scrap
10 08 18	Sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	Wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	Wastes from casting of ferrous pieces
10 09 03	Furnace slag
10 09 06	Casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	Casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 14	Waste binders other than those mentioned in 10 09 13
10 09 16	Wastes crack-indicating agent other than those mentioned in 10 09 15
10 10	Wastes from casting of non-ferrous pieces
10 10 03	Furnace slag
10 10 06	Casting cores and moulds which have not undergone pouring other than those mentioned in 10 10 05
10 10 08	Casting cores and moulds which have undergone pouring other than those mentioned in 10 10 07
10 10 14	Waste binders other than those mentioned in 10 10 13
10 10 16	Wastes crack-indicating agent other than those mentioned in 10 10 15
10 11	Wastes from manufacture of glass and glass products
10 11 03	Waste glass-based fibrous materials
10 11 10	Waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	Waste glass other than those mentioned in 10 11 11
10 11 16	Solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	Sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 12	Wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	Waste preparation mixture before thermal processing
10 12 05	Sludges and filter cakes from gas treatment
10 12 06	Discarded moulds
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	Solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	Wastes from glazing other than those mentioned in 10 12 11
10 13	Wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	Waste preparation mixture before thermal processing
10 13 04	Wastes from calcination and hydration of lime
10 13 07	Sludges and filter cakes from gas treatment
10 13 10	Wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	Wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	Solid wastes from gas treatment other than those mentioned in 10 13 12

10 13 14	Waste concrete and concrete sludge
11	Wastes from chemical surface treatment and coating of metals and other materials; non- ferrous hydro-metallurgy
11 01	Wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing, anodising)
11 01 10	Sludges and filter cakes other than those mentioned in 11 01 09
11 01 14	Degreasing wastes other than those mentioned in 11 01 13
11 02	Wastes from non-ferrous hydrometallurgical processes
11 02 03	Wastes from the production of anodes for aqueous electrolytical processes
11 02 06	Wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	Wastes from hot galvanising processes
11 05 01	Hard zinc
11 05 02	Zinc ash
12	Wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01	Wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 01	Ferrous metal filings and turnings
12 01 03	Non-ferrous metal filings and turnings
12 01 05	Plastics shavings and turnings
12 01 13	Welding wastes
12 01 17	Waste blasting material other than those mentioned in 12 01 16
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12 01 21	Spent grinding bodies and grinding materials other than those mentioned in 12 01 20
12 01 21 15	Spent grinding bodies and grinding materials other than those mentioned in 12 01 20 Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 15 01	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste)
15 15 01 15 01 01	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging
15 15 01 15 01 01 15 01 02	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging
15 15 01 15 01 01 15 01 02 15 01 03	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging
15 15 01 15 01 01 15 01 02 15 01 03 15 01 04	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging Metallic packaging
15 15 01 15 01 01 15 01 02 15 01 03 15 01 04 15 01 05	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging Metallic packaging Composite packaging
15 15 01 15 01 01 15 01 02 15 01 03 15 01 04 15 01 05 15 01 06	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging Metallic packaging Composite packaging Mixed packaging
15 15 01 15 01 01 15 01 02 15 01 03 15 01 04 15 01 05 15 01 06 15 01 07	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging Metallic packaging Composite packaging Mixed packaging Glass packaging
15 15 01 15 01 01 15 01 02 15 01 03 15 01 04 15 01 05 15 01 06 15 01 07 15 01 09	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging Metallic packaging Composite packaging Mixed packaging Glass packaging Textile packaging
15 15 01 15 01 01 15 01 02 15 01 03 15 01 04 15 01 05 15 01 06 15 01 07 15 01 09 15 02	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging Metallic packaging Composite packaging Mixed packaging Glass packaging Textile packaging Absorbents, filter materials, wiping cloths and protective clothing Absorbents, filter materials, wiping cloths and protective clothing
15 15 01 15 01 01 15 01 02 15 01 03 15 01 04 15 01 05 15 01 06 15 01 07 15 01 09 15 02 15 02 03	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging Metallic packaging Composite packaging Mixed packaging Glass packaging Textile packaging Absorbents, filter materials, wiping cloths and protective clothing Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02
15 15 01 15 01 01 15 01 02 15 01 03 15 01 04 15 01 05 15 01 06 15 01 07 15 02 15 02 03	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging Metallic packaging Composite packaging Mixed packaging Glass packaging Textile packaging Absorbents, filter materials, wiping cloths and protective clothing Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02 Wastes not otherwise specified in the list End-of-life vehicles from different means of transport (including, off-road machinery) and wastes
15 15 01 15 01 01 15 01 02 15 01 03 15 01 03 15 01 04 15 01 05 15 01 06 15 01 07 15 02 15 02 03 16 16 01	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging Metallic packaging Composite packaging Mixed packaging Glass packaging Textile packaging Absorbents, filter materials, wiping cloths and protective clothing Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02 Wastes not otherwise specified in the list End-of-life vehicles from different means of transport (including, off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14 16 06 and 16 08)
15 15 01 15 01 01 15 01 02 15 01 03 15 01 04 15 01 05 15 01 06 15 01 07 15 02 15 02 03 16 16 01 16 01 03	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified Packaging (including separately collected municipal packaging waste) Paper and cardboard packaging Plastic packaging Wooden packaging Metallic packaging Composite packaging Mixed packaging Glass packaging Textile packaging Absorbents, filter materials, wiping cloths and protective clothing Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02 Wastes not otherwise specified in the list End-of-life vehicles from different means of transport (including, off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14 16 06 and 16 08) End-of-life tyres

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16 03	Off-specification batches and unused products
16 03 04	Inorganic wastes other than those mentioned in 16 03 03
16 03 06	Organic wastes other than those mentioned in 16 03 05
16 06	Batteries and accumulators
16 06 04	Alkaline batteries (except 16 06 03)
16 06 05	Other batteries and accumulators
16 11	Waste linings and refractories
16 11 02	Carbon-based linings and refractories from metallurgical processes other than those mentioned in 16 11 01
16 11 04	Other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	Linings and refractories from non-metallurgical processes other than those mentioned in 16 11 05
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 01	Concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	Wood, glass and plastic
17 02 01	Wood
17 02 02	Glass
17 02 03	Plastic
17 03	Bituminous mixtures, coal tar and tarred products
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01
17 04	Metals (including their alloys)
17 04 01	Copper, bronze and brass
17 04 02	Aluminium
17 04 03	Lead
17 04 04	Zinc
17 04 05	Iron and steel
17 04 06	Tin
17 04 07	
17 04 11	Mixed metals
	Mixed metals Cables other than those mentioned in 17 04 10
17 05	
17 05 17 05 04	Cables other than those mentioned in 17 04 10
	Cables other than those mentioned in 17 04 10 Soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	Cables other than those mentioned in 17 04 10 Soil (including excavated soil from contaminated sites), stones and dredging spoil Soil and stones other than those mentioned in 17 05 03
17 05 04 17 05 06	Cables other than those mentioned in 17 04 10Soil (including excavated soil from contaminated sites), stones and dredging spoilSoil and stones other than those mentioned in 17 05 03Dredging spoil other than those mentioned in 17 05 05
17 05 04 17 05 06 17 05 08	Cables other than those mentioned in 17 04 10Soil (including excavated soil from contaminated sites), stones and dredging spoilSoil and stones other than those mentioned in 17 05 03Dredging spoil other than those mentioned in 17 05 05Track ballast other than those mentioned in 17 05 07
17 05 04 17 05 06 17 05 08 17 06	Cables other than those mentioned in 17 04 10Soil (including excavated soil from contaminated sites), stones and dredging spoilSoil and stones other than those mentioned in 17 05 03Dredging spoil other than those mentioned in 17 05 05Track ballast other than those mentioned in 17 05 07Insulation materials and asbestos-containing construction materials
17 05 04 17 05 06 17 05 08 17 06 17 06 04	Cables other than those mentioned in 17 04 10Soil (including excavated soil from contaminated sites), stones and dredging spoilSoil and stones other than those mentioned in 17 05 03Dredging spoil other than those mentioned in 17 05 05Track ballast other than those mentioned in 17 05 07Insulation materials and asbestos-containing construction materialsInsulation materials other than those mentioned in 17 06 01 and 17 06 03

17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
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
19 01	Wastes from incineration or pyrolysis of waste
19 01 02	Ferrous materials removed from bottom ash
19 01 12	Bottom ash and slag other than those mentioned in 19 01 11
19 01 18	Pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	Sands from fluidised beds
19 02	Wastes from physico/chemical treatments of waste (including dechromatation decyanidation, neutralisation)
19 02 03	Premixed wastes composed only of non-hazardous wastes
19 02 10	Combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 04	Vitrified waste and wastes from vitrification
19 04 01	Vitrified waste
19 05	Wastes from aerobic treatment of solid wastes
19 05 01	Non-composted fraction of municipal and similar wastes
19 05 02	Non-composted fraction of animal and vegetable waste
19 05 03	Off-specification compost
19 10	Waste from shredding of metal-containing wastes 19 10 01 iron and steel waste
19 10 03*	Fluff-light fraction and dust containing hazardous substances
19 10 04	Fluff-light fraction and dust other than those mentioned in 19 10 03
19 10 05*	Other fractions containing hazardous substances
19 10 06	Other fractions other than those mentioned in 19 10 05
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	Paper and cardboard
19 12 02	Ferrous metal
19 12 03	Non-ferrous metal
19 12 04	Plastic and rubber
19 12 05	Glass
19 12 07	Wood other than that mentioned in 19 12 06
19 12 08	Textiles
19 12 09	Minerals (for example sand, stones)
19 12 10	Combustible waste (refuse derived fuel)
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	Wastes from soil and groundwater remediation
19 13 02	Solid wastes from soil remediation other than those mentioned in 19 13 01
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20 01 01	Paper and cardboard

20 01 02	Glass
20 01 08	Biodegradable kitchen and canteen waste
20 01 10	Clothes
20 01 11	Textiles
20 01 34	Batteries and accumulators other than those mentioned in 20 01 33
20 01 36	Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	Wood other than that mentioned in 20 01 37
20 01 39	Plastics
20 01 40	Metals
20 01 41	Wastes from chimney sweeping
20 02	Garden and park wastes (including cemetery waste)
20 02 01	Biodegradable waste
20 02 02	Soil and stones
20 02 03	Other non-biodegradable wastes
20 03	Other municipal wastes
20 03 01	Mixed municipal waste
20 03 02	Waste from markets
20 03 03	Street-cleaning residues
20 03 07	Bulky waste

See Sections 6 and 7 for further detail regarding management of the waste.