MEARCLOUGH ROAD TRANSFER STATION PERMIT VARIATION APPLICATION

Fire Prevention Plan

EPR/NP3699ZH

Ellete Waste Limited, Mearclough Road, Sowerby Bridge, Halifax, HX6 3LF

Appendix F

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Fire Prevention Plan
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Quality Management

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1 INTRODUCTION

1.1.1 This fire prevention plan (FPP) has been produced for Ellete Waste Limited (EWL) who operates a waste transfer station (WTS) under environmental permit EPR/NP3699ZH. In drafting this document, consideration has been given to the applicable requirements set out within the Environment Agency Guidance on fire prevention[1] and the Environment Agency FPP template[2].

1.1.2 The objective of this document is to set out the 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 EWL Waste transfer and treatment facility is located on the corner of Mearclough Road and Fall Lane. The site address is Mearclough Road, Sowerby Bridge, Halifax, HX6 3LF.

1.2.2 The main activity includes the temporary storage and treatment of household, commercial and industrial waste.

1.2.3 The permit authorises the operation of a household, commercial and industrial waste transfer station (WTS), , with the capacity of 100,000 tonnes per year and no more than 274 tonnes per day will be accepted at the facility. The amount of waste which can be stored at any one time is 300m^3.

[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

2.1.1 The current FPP will be stored as a hard copy in the site office and a digital copy will be kept at on the company intranet within the environmental management system (EMS) for the site.

2.1.2 A copy of the FPP will also be made available to the local Fire and Rescue Service (FRS) office.

2.2 Who This Plan is For

2.2.1 This plan should be made available to and read by the following people:

- Mearclough Road Waste Transfer Station site staff;
- Contractors working on site; and
- Local fire officers.

2.3 Testing the Plan and Staff Training

2.3.1 Staff inductions include awareness of the FPP, where it's located and when to use it. Monthly toolbox talks 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.

2.3.2 The site has designated fire warden, 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.

2.3.3 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 and hazardous commercial and industrial wastes, in various forms.

3.1.2 Appendix B to this report 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 100,000 tonnes per annum will be accepted, with a maximum storage at any one time of 300m^3. The inert materials and glass fraction are not combustible, therefore they have not been considered further within this FPP.

3.1.3 Table 3-1 below provides a list of the combustible wastes at the facility.

Table 3-1- Main combustible wastes

Combustible waste	Description
Mixed waste	Non-hazardous commercial waste to be stored at the WTS for treatment or disposal off site.
Waste transfer station fines	Non-hazardous mixed waste from the mechanical treatment of wastes at waste management facilities
Sorted fractions	The recyclable materials that are sorted from the mixed waste and stored separately, comprising metal and plastic.
Shredded metal waste fractions/fluff	Non-hazardous and hazardous shredded metal waste fractions, fluff-light fractions received from metals treatment facilities, stored separately for recycling off site.

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

3.2 Other Combustible Materials

3.2.1 Table 3-2 below provides details of the other combustible (non-waste) materials stored on site and provides an indication of the total amounts and form of material stored, as well as the maximum storage time and the method for management.

3.2.2 The largest volume of combustible material is the diesel fuel which is used for onsite plant and vehicles. Diesel is stored within a 2,500 litre double-skinned and bunded tank. The fill points have an auto shut-off system and benefits from a long length connector hose. Spill kits are located within the WTS building in the event of spillages.

Table 3-2 Other combustible and/or flammable materials

Combustible material	Description	How the material is stored and maximum storage time	Maximum volume stored on site
Diesel	Fuel for onsite plant and vehicles	2,500 lt within a new double skinned and bunded tank. Diesel is in constant use and tank requires refilling approx. 4 times per year	2,500 lt
Oils and greases	Used for maintenance	2 no. 45 gallon drums stored within a bunded area. Usage is variable	90 gallons
Grease cartridges	Used for maintenance	25 no. individual units, each measuring 12 x 2 inch	25 individual units

4 FIRE PREVENTION PLAN CONTENTS

4.1 Activities at the Site

4.1.1 The main activity undertaken at the site is the storage and transfer with treatment of non-hazardous wastes; D15 (storage pending any of the operations numbered D1 to D14) and R13 (storage of waste pending any of the operations numbered R1 to R12). Waste streams will be sourced from local waste recycling operations.

4.1.2 This facility carries out treatment activities which include mechanical and manual sorting by use of a trommel and a hand picking station. This waste is sorted by hand and by mechanical means to separate plastic and metal form the waste.

4.1.3 Mixed general waste and waste treatment fines are tipped within a concrete walled bay within the building. Both tipping, treatment and storage will be taking place inside the WTS building. A separate concrete bay, also within the building, will be used for the hazardous fragmentiser fluff waste which has been received using EWC codes 19 10 03* and 19 10 05*. General waste and fragmentiser fluff waste will then be sorted separate to each other, by hand and by mechanical means to separate plastic and metal form the waste. The sorted metals and plastics are separately combined with other metal and plastic wastes and placed in the respective containers for transfer off site. Residual general waste will be returned to the bay, which will have been emptied to accommodate the treated waste. Residual fragmentisation fluff will be stored within the fragmentisation fluff waste bay.

4.1.4 Residual fragmentisation fluff awaiting the result of WM3 testing is stored in a concrete bay within the building. In the event that the WM3 test determines that any it remains hazardous it remains segregated in the metal skip for bulking pending onward transport for appropriate processing or disposal.

4.1.5 Residual fluff and fines that are deemed non-hazardous are mixed with general waste.

4.1.6 Inert wastes is moved by the mechanical shovel into a separate external storage bay. A separate external bay is to be used for excavation wastes and soils. Once these external bays have reached full capacity, the waste will be removed from the site and sent to a permitted recycling facility.

4.1.7 Bulked up waste will be sent onwards to waste recycling facilities for recovery.

4.2 Site Plan

4.2.1 A site plan, including the location of the quarantine area, mobile plant, water supplies and site drainage is provided in Drawing 1 and Drawing 2.

4.3 Plan of Sensitive Receptors near the Site

4.3.1 Drawing 3 shows nearby sensitive ecological receptors within 1 km of the site.

4.3.2 Drawing 4 shows the human receptors (e.g. schools, houses, playing fields) within 1 km of the site.

5 MANAGE COMMON CAUSES OF FIRE

5.1 Arson

5.1.1 The site is secured to protect the public and minimise the likelihood of unauthorised access.

5.1.2 Access to the site is limited to specified entry points as shown in Drawing 1 and Drawing 2. A boundary wall of around 2-3 m in height constructed of bricks and palisade fencing surrounds the site boundary. Three CCTV dome cameras will be in place around the site covering all areas where waste is stored, with two cameras in the external area and one camera placed within the building. The CCTV is monitored during out of hours by a monitoring company. During operational hours, the feed is recorded on a hard drive.

5.1.3 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 within the main WTS building which will also be locked out of hours. Intruder alarms will be activated out of hours and a notification is automatically sent to the mobile phones of nominated EWL persons.

5.2 Plant and Equipment

5.2.1 Mobile plant is used at the site include:

- 1no. mechanical loading shovel,
- 1no. 360 mechanical grab, and
- 1no. rotary screener (trommel) for screening wastes.

5.2.2 The trommel is located within the building, but more than 6 m away from the waste storage bays. Whilst there is a concrete bay beneath the trommel to capture screened waste, this bay will be kept empty except when the trommel is processing waste. When not in use, the loading shovel and grab are stored outside the building and more than 6 m from the location of combustible wastes and the site boundary shown on Drawing 2Drawing 1.

5.2.3 Failure of plant and equipment within the WTS may have the potential to cause a fire if in proximity to combustible materials. The WTS plant and equipment is subject to routine maintenance and inspection. Non-intrusive checks by Operators on the plant/equipment they are operating are undertaken as well as preventative checks comprising intrusive inspections and maintenance carried out by trained maintenance personnel. The periodicity of the maintenance and inspection is identified in site maintenance schedules.

5.2.4 EWL vehicles will be fitted with fire extinguishers. Additional fire extinguishers are located within the building. Mobile plant (including vehicles) when not in use, will be parked away from the areas where waste storage and processing operations take place. Most vehicles 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 by the contractor. These vehicles will be onsite only to deliver or collect waste and will not be parked overnight on site. 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.

5.2.5 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 WTSs.

5.3 Electrical Faults Including Damaged or Exposed Electrical Cables

5.3.1 All electrical equipment will undergo 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.

5.3.2 If during daily plant inspections damaged or exposed cables are identified, this would be reported to the Site Manager and appropriate repairs arranged.

5.4 Smoking on Site

5.4.1 There is no designated smoking area within the permitted boundary of the site. Smoking is not permitted in 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

5.7.1 All staff are trained to check for signs of hot exhausts and build-up of dust. There is a final check of the mobile plant and other vehicle exhausts prior to closing the site each day. Build-up of dust is prevented as set out in Section 5.11. The separation distance of at least 6 m between the stored wastes and any hot exhausts or engine parts minimises the chances of a fire occurring.

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.

5.7.3 All plant with exhausts are stored outside of the building, away from the combustible wastes. The treatment plant are electric so do not generate a hot exhaust.

5.8 Ignition Sources

5.8.1 There are no permanently installed naked flames, space heaters or other sources of ignition. In the event that such sources need to be brought to the site e.g. for maintenance they will be kept at least 6m away from combustible or flammable waste.

5.8.2 Hot works, exhausts and engine parts are dealt with in sections 5.5 and 5.6 above.

5.9 Batteries

5.9.1 The facility does not accept batteries as a waste stream. If this waste is received inadvertently, it will be stored appropriately in the quarantine area.

5.10 Leaks and Spillages

5.10.1 The site will not accept waste oils. Fresh oils and fuels kept on site for site plant are stored in bunded containers. Site staff are trained in transfer and handling procedures and will oversee any filling of containers or site plant/vehicles.

5.10.2 Spill kits are located in the site office. Regular vehicle checks are carried out by hauliers and staff are trained in the spillage procedure within the management system. In line with the daily check of hot exhausts, the mobile plant and onsite vehicles are checked for signs of fuel leakage prior to closing the site each day.

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

5.11.1 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 sets out the management measures in place to minimise build-up of loose materials at the site.

5.12 Reactions Between Wastes

5.12.1 The waste acceptance and management procedures for the site ensure that no incompatible wastes are stored where they could react with one another. Site personnel are available on site to routinely check waste deposited to remove or arrange removal of any wastes deposited in the incorrect area.

5.12.2 The tipped waste is checked by the site operative for incompatible wastes which may have been hidden within the skip, such as batteries or paint tins. Small items which may be fragile are removed manually. Large items are removed by the grab. This step reduces the possibility of reactions between different waste types.

5.12.3 Any non-compliant waste would be placed in the quarantine area where it would remain until alternative disposal arrangements are in place. If required, the waste can be placed within a container to provide further protection. The quarantine area is shown on Drawing 1.

5.13 Waste Acceptance and Deposited Hot Loads

5.13.1 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.

5.13.2 In the event that a hot load is identified, it will be kept away from vulnerable areas such as waste storage areas and will be deposited in the quarantine area, which is located at least 6 m from the site perimeter, any buildings and other combustible/flammable materials. In the event that a hot load is identified in a container, the whole container will be moved to the quarantine area and the fire managed within the container. The Site Manager must be notified. Details of the load (name, registration number, type of load, producer or source of waste should be recorded and the Environment Agency informed.

5.13.3 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.

5.13.4 Where necessary the Fire and Rescue Service will be called out. The Environment Agency will be informed of the incident.

5.13.5 After the material has been extinguished it will be quarantined and left for 48 hours. The waste will be monitored during this 48-hour period.

5.13.6 The quarantine area is located as shown on Drawing 1.

5.14 Hot and Dry Weather

5.14.1 Combustible wastes will be deposited and stored within a concrete bay with the building, which protects the waste from the effects of hot and dry weather.

5.14.2 Other wastes including recyclables, metals and wood will be stored in metal skips outside the building.

5.14.3 During hot weather, additional monitoring will be implemented to check temperatures of waste piles. Trained personnel will be responsible for conducting temperature checks on combustible wastes at specified intervals.

6 PREVENT SELF-COMBUSTION

6.1 General Self-Combustion Measures

6.1.1 Materials such as residual waste are 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 including the loading areas. However, there are management procedures in place to ensure that, where practicable, materials will be maintained on a first in first out basis. Received mixed waste and residual sorted/treated wastes will usually not be stored on site for more than 7 days, thus negating the risk. There may be occasions where waste could be stored for up to 14 days, such as waste awaiting WM3 testing.

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 Wastes are the main combustible materials stored on site. Site waste acceptance procedures are in place, separate to this FPP, as part of the site management procedures.

6.2.2 Storage time for wastes is recorded via waste acceptance records.

6.2.3 The maximum throughput of the site is 274 tonnes per day.

6.2.4 Records and/or waste transfer notes (WTNs) for all wastes entering the site and for all wastes/skips leaving site for recovery or disposal elsewhere will be kept at the site office.

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
General waste and non-hazardous fines	Non-hazardous commercial waste	30	38	7 days	Internal concrete bay
Light fraction fluff waste	Light fraction from shredding of metal waste	10	8	7 days	Internal concrete bay
Paper/cardboard	Sorted paper fraction of incoming waste	10	3	7 days	30 yard skip outside on concrete
Wood	Wood fraction from incoming waste	15	5	7 days	40 yard skip outside on concrete
Plastic	Solid fraction produced from treated mixed wastes and Light	15	3	7 days	40 yard skip outside on concrete

	fraction fluff waste				
Scrap Metal	Solid fraction produced from treated mixed wastes	15	3	7 days	40 yard skip outside on concrete
Waste awaiting WM3 testing	Light fraction from shredding of metal waste	12	3	14 days	Internal concrete bay

Stock rotation policy

6.2.5 Quantities of incoming and outgoing material for the site are recorded in metric tonnes utilising a known weight by volume ratio. This ratio is to be checked annually using an off-site weighbridge, to ensure the weight by volume ratio is as close as possible to an ideal calculation. 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. Waste will be processed in rotation in accordance with waste management procedures, as far as is practicable.

6.2.6 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 16.00 on Sundays 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.

6.2.7 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 building using the 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.

6.2.8 Inspection forms within the EMS will record this and the incoming waste records provide daily input/output of waste.

6.2.9 As set out in 6.1.1, wastes that are at risk of self-combustion will not be stored for more than 14 days.

6.3 Monitor and Control Temperature

6.3.1 EA FPP guidance requires any waste stored for more than three months to have provisions in place to control heat to prevent self-combustion, which include:

- Reduce the exposed metal content and proportion of ‘fines’
- Controlling temperature
- Monitoring temperature

6.3.2 Waste will normally not be stored for longer than 7 days, thereby reducing the likelihood of significant temperature increases. Wastes awaiting the results of WM3 testing will be stored in a concrete bay within the building, segregated from other wastes generally for no longer 14 days.

6.3.3 Temperature is controlled by reducing the exposed metal content through the mechanical screening and hand picking process, maintaining relatively short storage times and screening combustible/flammable materials from sunlight through storage within an enclosed building and enclosed/sealed containers.

6.3.4 CCTV monitoring is provided across the site with feedback to the off-site 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.

6.3.5 Temperature is also controlled by maintaining relatively short storage times as. Regular mixing of wastes also helps to disperse any build-up of heat throughout the pile. Visual signs of heating would trigger further investigation by site staff who will be trained to detect and manage hotspots.

Dealing with hot weather and heating from sunlight

6.3.6 The combustible waste storage is located within concrete bays and skips inside the building, to protect these wastes from sunlight which will protect the waste materials from heating due to higher temperatures or sunlight.

7 MANAGEMENT OF WASTES

7.1 Managing Waste Piles

7.1.1 Incoming loads will be directed to a designated bay within the most appropriate bay within the transfer station. A load containing only inert waste or excavation waste will be deposited straight into the respective external storage bay. Fines, fluff-light, shredded metal waste or general waste will be stored in the respective internal bay, as shown in the site layout plan.

7.1.2 A mixed load upon deposit will be manually sorted to segregate out all recyclables which will then be separately stored in dedicated skips inside the WTS building. The remaining waste, when there is a sufficient volume, will be transferred to the trommel. Once treated, the waste will be transferred from the screened waste bay beneath the trommel and returned to the general waste bay, or where fragmentiser fluff has been treated, the screened waste will be placed back within the fragmentiser fluff bay.

7.1.3 Waste which is ready to be sent off site will be loaded by the mechanical shovel into vehicles within the building. This activity will take place regularly to ensure the height of the waste is kept below 2m. This provides a 1m freeboard at the top and the sides of each bay to prevent fire spreading over and around bays.

7.1.4 The general waste bay and the shredded metal waste bay both have the capacity to store a maximum of 48m^3 each. However, the freeboard of 1m at the top of the bay and at the front reduces this capacity to 24m^3.

7.1.5 In addition, the waste treatment line is comprised of a concrete bay beneath the trommel and two small bays at the end of the treatment line. The bay beneath the trommel will capture screened waste which will be removed from this bay and placed within general waste bay or fragmentiser fluff bay, depending on the waste type being treated. The dimensions of this bay are 4 m L x 2 m W x 2 m deep. This bay will be empty when the treatment plant is not in use.

7.1.6 A concrete bay at the end of the treatment line will be used to capture residual waste which will be moved by mechanical means into the appropriate skip for recycling. The bay will hold up to 12m^3 of residual waste but will be kept empty when the treatment line is not in use. General non-hazardous residues and fragmentiser fluff residues will be moved back into their respective waste storage bays in the northeast corner of the building by the mechanical shovel.

7.1.7 Adjacent to the residues bay is a bay for waste awaiting WM3 testing. This bay has the capacity to hold up to 12m^3 although the level will be kept far below this.

7.1.8 The volume of each pile of waste within the building will be far below 450m^3, which is the maximum allowed. Finer fractions of waste will not exceed the FPP limit of 300m^3.

7.1.9 There are two external waste reception bays formed of concrete in the southwest area of the site for excavation and inert waste, which are non-combustible. No other waste types will be stored within these bays.

7.1.10 All bays are waste storage areas have been marked up on the site layout plans within Drawing 1 and Drawing 2.

Storing waste materials in their largest form

7.1.11 Waste stored in the WTS building will be in their largest form (i.e. how they arrived on site) as well as in their smallest form after treatment. Wastes are stored prior to and after treatment before being bulked and to recycling or disposal sites.

Table 7-1 Maximum pile sizes

Waste stream	Location (must match site plan)	How it is stored	Max length (m)	Max width (m)	Max height (m)	Max volume (m^3)	Max time it will be stored
General waste	Stored in one bay (3 on site plan) inside waste building	Stored internally within concrete bay	3	4	2	24	7 days
Shredded metal/fluff-light fraction waste	Stored in one bay (4 on site plan) inside waste building	Stored internally within concrete bay	3	4	2	24	7 days
Residues from screening	Stored in bay (5 on site plan) inside waste building	Stored internally within concrete bay	3	3	2	12	24 hours
Waste subject to WM3 testing	Stored in one bay (6 on site plan) inside waste building	Stored internally within concrete bay	3	3	2	12	14 days

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 skips include metal and plastic. These are stored in two separate standard 40 cubic yard skips for plastic and metals. These skips are located more than 6 m away from other wastes within the building. The approximate dimensions of a 40 $yard^3$ skip are 2.5 x 6.1 x 2.4 m. The combined volume of the two skips is approximately 72m^3 which is much lower than the most conservative maximum for metal 450m^3 and 300m^3 for plastics.

7.2.2 Two skips will be placed beneath the picking station to capture and temporarily hold separated plastic and metal waste. These will be “3 yard” skips each with approximate dimensions 1.82m x 1.22m x 0.91m. = ~2m^3. The contents of these skips will be placed into the larger skips stored when full, most likely on a daily basis.

7.2.3 Table 7-2 provides details of the main combustible materials stored in skips on site and provides an indication of the total amounts stored and how they are stored.

[3] https://www.mickgeorge.co.uk/skip-hire/skip-size-guide#

Table 7-2 Types of containers

Combustible and/or flammable waste	Maximum stored on site (tonnes)	Typical quantity received daily (tonnes)	Type of container(s)	Dimensions of container(s)	Volume of container (m^3, unless specified otherwise)	Number of containers
Scrap metal	15	5	Metal ro-ro	2.5 x 6.1 x 2.4 m	37	1
Residual plastic	15	3	Metal ro-ro	2.5 x 6.1 x 2.4 m	37	1

Accessibility of containers

7.2.4 Skips are accessible from the ground and are open at the top. Skips can be accessed from all sides. Therefore, each skip is accessible to site staff or the FRS so any fire inside can be put out. Skips beneath the picking station will be open and will contain waste only when the picking station is operating.

Moving containers in a fire

7.2.5 In the event of a fire, either on site plant such as the grab or roll on/roll off vehicles will be deployed to move the containers as soon as is reasonably practicable to prevent the fire spreading. Non-burning skips will be moved to a location more than 6 m away from the fire to prevent the spread of fire. The roll on/roll off vehicles will be parked more than 15 m from the fire.

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:

- There is a separation distance of at least 6 m between combustible waste and the site perimeter, buildings, or other combustible or flammable materials;
- General waste, shredded metal waste, residues and wastes awaiting WM3 testing bays stored inside the building will be segregated within concrete bays, which will be constructed from material which provides a fire resistance period of at least 120 minutes, minimising the risk of fire spreading between the two piles.
- Hot loads will be moved to the quarantine area, which is located in the external forecourt area more than 6 m from any of the above.
- Vehicles will be stored more than 6 m from a fire.

8.2 Fire Wall 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 is approximately 262m^2. The building does not have compartments other than the concrete bays; it is a single large room. The walls making up the three sides of each storage bay will be designed to have a fire resistance period of at least 120 minutes to allow waste to be isolated and to enable a fire to be extinguished within 4 hours.

8.3 Storing Waste in Bays

8.3.1 Table 7.1 above sets out the dimensions of bay and the maximum pile sizes. These include the minimum 1 m freeboard required at the top and sides to prevent fire spreading over and around bays.

8.3.2 The concrete Lego blocks have the dimensions 600 x 600 x 1200 mm and are categorised as Class A1 fire resistant in accordance with EN 13501-1, meaning they are non-combustible.

9 QUARANTINE AREA

9.1 Quarantine Area Location and Size

9.1.1 The quarantine area is large enough to both:

- Hold at least 50% of the volume of the largest pile.
- Have a separation distance of at least 6 m around the quarantined waste.

9.1.2 The location of the quarantine area is indicated on the site layout plan, Drawing 1.

9.1.3 The quarantine area will be able to hold at least 20 m^3 of waste (greater than 50% of the largest pile or container), when taking into account those separated by concrete fire breaks or distances of more than 6 m, as detailed in the EA FPP Guidance[1].

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, waste from within the waste storage area in the WTS building or skips moved to this location for segregation.

9.2.2 When a hot load is identified, it will be removed as quickly as possible and isolated in the quarantine area.

9.2.3 The external drainage system will be fitted with penstock valves within a proposed timescale of 6 months from the permit variation issue, which will be shut in the event of a fire to contain the run-off from fire water to prevent pollution of the environment and prevent fire water entering the foul sewer.

9.3 Procedure to Remove Material Stored Temporarily If There Is A Fire

9.3.1 The quarantine area will contain minimum waste within a skip. The skip can quickly be removed by on site mobile plant. Burning waste can be tipped onto the ground of the cleared quarantine area.

9.3.2 In the event of a fire, waste will be moved to the quarantine area as soon as practicable and within one hour of the fire starting.

9.3.3 The location of the quarantine area is in the southeast corner of the site and is indicated on the site plan.

10 DETECTING FIRES

10.1 Detection Systems in Use

10.1.1 As part of the daily inspections, staff will check for any evidence of fire and fire risks on the site. During operational hours, the site will always be staffed with site personnel who can raise an alarm if they detect any signs of fire. Out of hours arrangements are that the CCTV will be monitored in the off-site control room, to identify any signs of a fire during non-operational hours. The monitoring company will alert the fire service to attend site.

10.1.2 Details of actions in the event of a detector being activated both during operational hours and out of hours are covered in section 12.

10.2 Certification for the Systems

10.2.1 The design, installation and maintenance of the automated systems will be covered by an accredited third-party certification scheme before the updated operations commence at the facility.

11 SUPPRESSING FIRES

11.1 Suppression Systems in Use

11.1.1 The fire detection system, described in Section 10.1, in conjunction with the manual 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. The manual system consists of fire extinguishers which are located inside all buildings and the office on the site. Mains water is available at the building for firefighting purposes by use of a water hose. The transfer station will hold limited amounts of waste within the building as EWL aim to treat and transfer waste to remove it off site as quickly as possible.

11.1.2 In the event that a fire is detected out of hours, the FRS will be alerted by the system described in Section 10.1. In addition to this, the monitoring service will alert an EWL contact who will attend to the site in less than 20 minutes to activate the manual fire suppression system.

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 building.

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.

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 for movement of waste (360 grab and mechanical shovel);
- Staff trained in fire procedures (see Section 2.3);
- Available water supply (see Section 13);
- Finances to ensure appropriate investment in fire-fighting provisions, training, maintenance and upgrades as necessary.

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.
- During out of hours, the FRS will be alerted by the off site CCTV monitoring service, who will also alert the nominated EWL contact to attend the site.
- If the fire is in the main office, the site garage or away from waste, then call out the Fire Service. Then if possible, and without risk to personnel, tackle the fire using the nearest appropriate fire extinguishers or water supply.
- If the fire is within a waste storage area then if possible, and without risk to personnel, tackle the fire using the nearest appropriate fire extinguishers or water supply. 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 will be set out in the site procedures. The main fire alarm panel will be located in the WTS building 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 will be activated, a decision will be made by the appropriate person to also contact the local FRS who would attend the site to carry out the fire fighting. During out of hours, the FRS will have been alerted to attend to the fire by the CCTV monitoring service. Access routes for vehicles and the FRS are shown on Drawing 2.

12.1.8 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.

12.1.9 Staff will be 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.

12.1.10 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.

12.1.11 Given the available firefighting techniques and means of detecting a potential fire, it is expected that a fire would be extinguished within 4 hours.

12.1.12 In the event of a fire, if the site has closed then any incoming waste is to be diverted to a local alternative waste transfer station site.

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. In case of small-scale fires, the mains water supply will be utilised. For larger fires requiring the FRS, the hydrant situated outside the site entrance will be used for firefighting purposes.

13.1.2 The closest fire hydrant (FH 33649) is positioned at the intersection of Mearclough Road and Fall Lane.

13.2 Show the Calculation for Your Required Water Supply

13.2.1 Section 16 of the EA FPP Guidance[1] provides a calculation based on 300 m^3 of waste requiring 2,000 litres of water per minute for a minimum of 3 hours. This represents the worst-case scenario which typically would be the largest pile of waste catching fire.

13.2.2 The largest pile of combustible waste within the building is 24m^3. A pile of this size will require a supply rate of 160.1 litres/min and total water requirement of 28,818 litres as shown in Table 13-1 below.

13.2.3 The combined volume of the two skips would hold a maximum of 74m^3 of waste. This volume of waste will require a supply rate of 493.6 litres/min and total water requirement of 88,848 litres as shown in Table 13-1 below.

13.2.4 The site does not hold a supply of water for fire fighting purposes. However, there is access to mains water supply using a hose which can be put into use along with the fire extinguishers, as a first in firefighting. The fire service will have access to the hydrant located immediately outside the site gates, which will provide adequate water to put out a fire involving the largest pile of waste. This hydrant (reference FH 33649) is located approximately 50m northeast of the site, conforms to BS 750 and is regularly maintained by West Yorkshire Fire and Rescue Service.

Table 13-1 Water Supply Calculation

Maximum pile or container 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
Building			
24 m^3 max capacity for waste storage in the building	24 m^3 x 6.67 = 160.1 litres/min	160.1 x 180 = 28,818 litres	None stored on site – mains water supply using hose.
74m^3 capacity of largest skip	74m^3 x 6.67 = 493.6 litres/min	493.6 x 180 = 88,848 litres	FRS can access hydrant outside facility gates, located ~ 50m NE

14 MANAGING FIRE WATER

14.1 Containing the Run-off from Fire Water

14.1.1 In the event of a fire, 1 m high flood gates will be deployed and placed across the building entrances to contain the firefighting water. Containing firefighting water inside the WTS building mitigates the potential for contamination sourced from extinguishing fires. The sealed building construction enables the storage of fire water without the risk of seepage or escape into the environment.

14.1.2 The building has an internal footprint of 18.7m x 14m. With the floodgates in place, it can hold a total of circa 262m^3 which is more than the worst case volume of water from firefighting within the building set out in Table 13-1 above.

14.1.3 As mentioned in paragraph 9.2.3, 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 involving the quarantine area. This will contain fire water run-off preventing pollution of the environment and preventing fire water entering the foul sewer. The external areas are covered with impermeable concrete which will impede fire water entering the ground. The concrete areas are inclined towards the drainage gullies.

14.2 Assessing Risks to Groundwater from Fire Water

14.2.1 The site is not located within a source protection zone nor are there any groundwater abstraction points located within 100 m from the site.

14.2.2 The site engineering, which includes concrete hardstanding and sealed drainage, reduces the risk of any contaminated waters from escaping into the ground.

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, waste deliveries 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 2 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 of this report.

15.2 Notifying Residents and Businesses

15.2.1 The closest residential receptor and the closest business are 150 m and 25 m respectively from the site.

15.2.2 The Site Manager will notify nearby businesses and residents of a major fire via the following routes:

- Press release
- Website updates
- 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 After a fire event, the site will be cleaned and decontaminated, fire water will be sent to authorised facilities for treatment by the use of tankers pumping water from the building. The site drainage system will be cleaned, fire affected wates will be sent to a disposal site. Any fire damaged equipment will be removed and replaced.

15.3.2 Once the drainage system has been confirmed clear of contaminated fire water, the penstock valves will be re-opened.

15.3.3 If applicable, skips will be returned to their original storage location and any fire-damaged equipment will be removed or replaced. The quarantine area will be cleared of all skips and/or waste. Any affected waste will be removed off site for treatment or disposal by a third party.

15.3.4 The facility does not accept hazardous waste or wastes likely to contain POPs.

15.3.5 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. In the case of a specific event in which the operator wishes to discharge fire water to surface water, an appropriate testing regime will be agreed with the EA prior to discharging it.

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 waste storage areas/skips and access areas are clear;

- skips/wastes have been returned to their original storage location and any fire-damaged equipment has been removed/replaced;
- The quarantine area is cleared;
- The FPP has been reviewed and updated to incorporate any lessons learned;
- 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.

16 MONITORING, REVIEW, REPORTING AND RECORD KEEPING

16.1 Monitoring

16.1.1 Staff working within the waste storage area will be required to be vigilant of any sign of self-combustion or hot loads.

16.1.2 The site will undertake 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 system this FPP is incorporated within the audit programme. The frequency of audit will be set within the site audit programme. A record of any audit will be made and stored appropriately. Should non-conformances be identified these will be 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 will be 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.

16.2.3 Reporting requirements will be 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.

Drawings

Drawing 1 Site Layout and Drainage Plan

Drawing 2 Site Layout, Plant and Traffic Plan

Drawing 3 Ecological Receptor Plan

Drawing 4 Sensitive Receptor Plan

Appendices

Appendix A

Emergency Contacts

Emergency Contacts

Contact	Address	Contact Details
Local Police (West Yorkshire Police)	West Yorkshire Police, Richmond Close, Halifax, HX1 5TW	Emergency – 999 or 112 Non-emergency – 101
Local Fire Service (West Yorkshire Fire and Rescue Service)	Halifax Fire Station, Skircoat Moor Road, Halifax, HX1 3JF	Emergency – 999 Non-emergency – 01422 386820
Local Hospital with A&E (Calderdale Royal Hospital)	Salterhebble, Halifax, West Yorkshire, HX3 0PW	Emergency – 999 Non-emergency – 01422 357171
Local EA Office (Leeds)	Lateral, 8 City Walk, Leeds, LS11 9AT	03708 506 506
Operational Contact (Joe Sawrij)	Townend House, 8 Springwell Court, Leeds, West Yorkshire, LS12 1AL	Tel: 07904 164960 On duty Site Manager 07479 229337 Alternate contact Email: admin@ellete.co.uk

Appendix B

Proposed List of Wastes

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 10
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 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
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 08	wastes from sorting of paper and cardboard destined for recycling
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 wastes other than those mentioned in 06 09 03
06 11	wastes from the manufacture of inorganic pigments and opacificiers
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
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 03	wastes from aluminium thermal metallurgy
10 03 02	anode scraps
10 03 05	waste alumina
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 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 06	wastes from copper thermal metallurgy
10 06 01	slags 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 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 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
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	waste 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	waste 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 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	waste preparation mixture before thermal processing
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 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
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, phosphating, alkaline degreasing, anodising)
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
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15	WASTE PACKAGING, ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
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, 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	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 08	track ballast other than those mentioned in 17 05 07
17 06	insulation materials and asbestos-containing construction materials
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 08	gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
17 09	other construction and demolition wastes
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	wastes from shredding of metal-containing wastes
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