

Application to Vary Waste Permit EPR/SP3196ZQ

Appendix C: 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

JER1902
Calder Valley Fire Prevention
Plan
Version: 2
Revision: 2
Date: 16 September 2020

Quality Management

| Version | Revision | Authored by | Reviewed by | Approved by | Date |
|---------|----------|-------------|-------------------|-------------------|-------------------|
| 1 | 0 | Alice Gibbs | - | - | -[Date] |
| 1 | 1 | Alice Gibbs | Jennifer Stringer | Jennifer Stringer | 04 August 2020 |
| 2 | 1 | Alice Gibbs | CVSH | Jennifer Stringer | 13 August 2020 |
| 2 | 2 | Alice Gibbs | Jennifer Stringer | Jennifer Stringer | 16 September 2020 |

Approval for issue

Jennifer Stringer

[Signature]

16 September 2020

File Name

200916 R JER1902 AG Calder Valley FPP V2 R2

© Copyright RPS Group Plc. All rights reserved.

This report has been compiled using the resources and in accordance with the scope of work agreed with the client. No liability is accepted by RPS for any use of this report, other than the purpose for which it was prepared. RPS does not accept any responsibility or liability for loss whatsoever to any third party caused by, related to or arising out of any use or reliance on the report.

Prepared by:

RPS

Alice Gibbs

Environmental Consultant

6-7 Lovers Walk

Brighton, East Sussex BN1 6AH

T +44 1273 546 800

E alice.gibbs@rpsgroup.com

Prepared for:

Calder Valley Skip Hire Ltd

Joe Sawrij

Rochdale Road, Sowerby Bridge

Halifax, HX6 3LL

T +44 1422 833333

E joesawrij@caldervalleyskiphire.co.uk

Contents

| | | |
|----------|---|-----------|
| 1 | INTRODUCTION | 4 |
| 1.2 | Site Details | 4 |
| 2 | USING THIS FIRE PREVENTION PLAN | 5 |
| 2.1 | Location of FPP | 5 |
| 2.2 | Who This Plan is For | 5 |
| 2.3 | Testing the plan and staff training | 5 |
| 3 | TYPES OF COMBUSTIBLE MATERIALS | 6 |
| 3.1 | Combustible Waste | 6 |
| 3.2 | Other Combustible Materials | 6 |
| 4 | FIRE PREVENTION PLAN CONTENTS | 7 |
| 4.1 | Activities at the Site | 7 |
| 4.2 | Site Plan | 7 |
| 4.3 | Plan of Sensitive Receptors near the Site | 7 |
| 5 | MANAGE COMMON CAUSES OF FIRE | 8 |
| 5.1 | Arson | 8 |
| 5.2 | Plant and Equipment | 8 |
| 5.3 | Electrical Faults Including Damaged or Exposed Electrical Cables | 8 |
| | Electrics Certification | 9 |
| | Electrical Equipment Maintenance Arrangements | 9 |
| 5.4 | Discarded Smoking Materials | 9 |
| | Smoking on Site Policies | 9 |
| 5.5 | Hot Works Safe Working Practices | 9 |
| 5.6 | Industrial Heaters | 9 |
| | Use of Industrial Heaters | 9 |
| 5.7 | Hot Exhausts and Engine Parts | 9 |
| | Fire Watch Procedures | 9 |
| 5.8 | Ignition Sources | 10 |
| 5.9 | Leaks and Spillages of Oils and Fuels | 10 |
| 5.10 | Build-Up of Loose Combustible Waste, Dust and Fluff | 10 |
| 5.11 | Reactions Between Wastes | 10 |
| 5.12 | Deposited Hot Loads | 11 |
| 6 | PREVENT SELF-COMBUSTION | 12 |
| 6.1 | General Self-Combustion Measures | 12 |
| 6.2 | Manage Storage Time | 12 |
| | Method Used to Record and Manage the Storage of All Waste on Site | 12 |
| | Stock rotation policy | 13 |
| 6.3 | Monitor and Control Temperature | 13 |
| | Reduce the exposed metal content and proportion of 'fines' | 13 |
| | Monitoring temperature | 13 |
| | Controlling temperature | 13 |
| | Dealing with hot weather and heating from sunlight | 14 |
| 6.4 | Waste Bale Storage | 14 |
| 7 | MANAGEMENT OF WASTES | 15 |
| 7.1 | Managing Waste Piles | 15 |
| | Maximum pile sizes for the waste on your site | 15 |
| | Storing waste materials in their largest form | 15 |
| 7.2 | Where Maximum Pile Sizes do not Apply | 15 |
| | Waste Stored in Containers | 15 |
| 8 | PREVENT FIRE SPREADING | 17 |
| 8.1 | Separation Distances | 17 |
| 8.2 | Fire Walls Construction Standards | 17 |

| | | |
|-----------|---|-----------|
| 8.3 | Storing Waste in Bays | 17 |
| 9 | QUARANTINE AREA | 18 |
| 9.1 | Quarantine Area Location and Size | 18 |
| 9.2 | How to Use the Quarantine Area if there is a Fire | 18 |
| 9.3 | Procedure to Remove Material Stored Temporarily if there is a Fire..... | 18 |
| 10 | DETECTING FIRES | 19 |
| 10.1 | Detection Systems in Use | 19 |
| 10.2 | Certification for the Systems | 19 |
| 11 | SUPPRESSING FIRES | 20 |
| 11.1 | Suppression Systems in Use | 20 |
| 11.2 | Certification for the Systems | 20 |
| 12 | FIREFIGHTING TECHNIQUES | 21 |
| 12.1 | Active Firefighting..... | 21 |
| 13 | WATER SUPPLIES..... | 23 |
| 13.1 | Available Water Supply | 23 |
| 13.2 | Show the Calculation for your Required Water Supply | 23 |
| 14 | MANAGING FIRE WATER | 24 |
| 14.1 | Containing the Run-off from Fire Water | 24 |
| 15 | DURING AND AFTER AN INCIDENT | 25 |
| 15.1 | Dealing with Issues During a Fire | 25 |
| 15.2 | Notifying Residents and Businesses..... | 25 |
| 15.3 | Clearing and Decontamination After a Fire..... | 25 |
| 15.4 | Making the Site Operational After a Fire..... | 25 |
| 16 | MONITORING, REVIEW, REPORTING AND RECORD KEEPING | 26 |
| 16.1 | Monitoring..... | 26 |
| 16.2 | Review, Reporting and Record Keeping..... | 26 |

Tables

| | |
|---|-----------|
| Table 3-1 Main combustible wastes..... | 6 |
| Table 3-2 Other combustible and/or flammable materials | 6 |
| Table 6-1 Storage of main combustible and/or flammable waste | 12 |

Drawings

| | |
|-----------|----------------------|
| Drawing 1 | Site Drainage Plan |
| Drawing 2 | Ecological Receptors |
| Drawing 3 | Human Receptors |
| Drawing 4 | Site Layout |

Appendices

| | |
|------------|-----------------------|
| Appendix A | Emergency Contacts |
| Appendix B | List of Waste Codes |
| Appendix C | Electrics Certificate |

1 INTRODUCTION

- 1.1.1 This fire prevention plan (FPP) has been produced to support the permit variation application for the Calder Valley waste transfer station (WTS) for the environmental permit with 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 permit variation application has been prepared to cover the addition of a drying plant to the permitted WTS activity.
- 1.1.3 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.
- 1.1.4 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 current permit includes for the operation of a WTS handling up to 145,000 tonnes per annum of non-hazardous waste including household, commercial and industrial waste.
- 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:
- WEX115801: T23 – Aerobic composting and associated prior treatment (expires 05/12/2020)
 - WEX159455: S1 – Storing waste in secure containers (expires 12/02/2022)
 - WEX224554: S2 – Storing waste in a secure place (expires 12/11/2022)
 - WEX247114: S2 – Storing waste in a secure place (expires 21/07/2023)
 - WEX247118: U1 – Use of waste in construction (expires 21/07/2023)

¹ Environment Agency, Fire prevention plans: environmental permits, updated 9 January 2020. 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 9 January 2020. Available online: <https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits>

2 USING THIS FIRE PREVENTION PLAN

2.1 Location of FPP

- 2.1.1 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.
- 2.1.2 A copy of the FPP will also be sent to the local Fire and Rescue Service (FRS) office.

2.2 Who This Plan is For

- 2.2.1 This plan will be made available to the following people:
- Calder Valley WTS staff;
 - Contractors working on site; and
 - Local fire officers.

2.3 Testing the plan and staff training

- 2.3.1 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.
- 2.3.2 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.
- 2.3.3 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 municipal solid waste (MSW) and commercial and industrial (C&I) wastes, in various forms.
- 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. The inert materials and glass fraction are not combustible so have not been considered further within this FPP.

Table 3-1 Main combustible wastes

| Combustible waste | 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. |

3.2 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)

4.2 Site Plan

4.2.1 A site plan, including the location of the quarantine area, mobile plant and emergency access route, is provided in Drawing 4. A plan showing the 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.

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.
- 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 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 are stored outside the WTS building and more than 6 m from the location of combustible wastes and from the site boundary. No other plant are used on the site.
- 5.2.3 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.
- 5.2.4 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.
- 5.2.5 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 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. The wire test certificate is provided in Appendix D. 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 adhoc 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. All plant with exhausts are stored outside of the WTS building, away from the combustible wastes. The shredder is electric so does 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 All combustible wastes are stored in the WTS building, which is enclosed and therefore helps to delay the spread of a fire. 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 5.2, 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.
- 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.

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 | Non-hazardous commercial waste | 100 | 38 | 7 days | Bunker in WTS building |
| Plasterboard | Sorted plasterboard fraction of incoming waste | 50 | 20 | 7 days | Bunker in WTS building |
| Residual waste | Processed residual waste, including fines (refuse derived fuel) | 100 | 20 | 7 days | Bunker in WTS building |
| Paper/cardboard | Sorted paper fraction of incoming waste | 3 | 3 | 7 days | 40 yard skip outside on hardstanding |
| Metals | Ferrous and non-ferrous metals sorted from incoming waste | 12 | 4 | 7 days | 40 yard skip outside on hardstanding |
| Green waste | Green waste fraction from incoming waste | 7 | 3 | 7 days | 40 yard skip outside on hardstanding |
| Wood | Wood fraction from incoming waste | 20 | 8 | 7 days | 40 yard skip outside on hardstanding |

-
- 6.2.3 Combustible wastes will normally be stored for up to a few days before being processed. 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) building. 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 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 to avoid mixing of incompatible wastes, and metals are separated out for recycling. Wood 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 will normally not be stored for longer than 10 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 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 Combustible/flammable waste is stored within the WTS building, which will protect the waste materials from heating due to higher temperatures or sunlight.

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 waste³ (450 m³).
- 7.1.2 There are four bunkers within the WTS building, three of which store inert waste, general waste and plasterboard respectively and are located at the far (western) end of the building. The inert waste storage bunker is at maximum 6.4 x 8 x 4 = 204.8 m³ however inert waste is not combustible so is not included within this assessment. The general waste bunker is at maximum approximately 288 m³ and the plasterboard bunker is a maximum of 102.4 m³. The combined maximum volume within the general waste and plasterboard bunkers is approximately 390 m³ which is less than the maximum pile height³ of 450 m³. A fourth bunker which stores the residual waste processed into RDF as feedstock for the adjacent SWIP is located more than 6 m from the other bunkers, close to the front (eastern end) of the building and is at maximum 6 x 6 x 4 = 144 m³. This is also less than the maximum pile height³ for residual waste of 450 m³.

Storing waste materials in their largest form

- 7.1.3 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 and paper/cardboard. These are stored in 4 separate standard 40 cubic yard skips, more than 6 m away from the WTS building. The approximate dimensions of a 40 cubic yard skip⁴ are 2.5 x 6.1 x 2.4 m. The combined volume of the four skips is approximately 150 m³ which is much lower than the most conservative maximum for wood, metal, green waste and/or paper/cardboard (300 m³).

³ Note there is no maximum pile size for residual waste or plasterboard so the maximum for RDF and SRF has been used.

⁴ <https://www.mickgeorge.co.uk/skip-hire/skip-size-guide#>

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.

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;
- All 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 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.

8.2 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 4mm 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 As part of the daily inspections, staff check for any evidence of fire and fire risks on the site. The CCTV will also be monitored in the control room, to identify any signs of a fire. The site has 24 hour security in place.
- 10.1.2 The WTS building is equipped with heat and smoke detectors which are monitored off site and the FRS notified when a fire event is detected. 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 UKAS-accredited 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 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 2.3);
 - Available water supply (see section 13);
 - 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.
- 13.1.3 It should be noted that the fire brigade would use the nearby river as a source of firewater. Given the proximity to the river, there is no reason or immediate opportunity to contain and collect firewater for recycling for use by the FRS.
- 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 |
|---|--|--|---|
| 390 m ³ (general waste and plasterboard bunkers) | $390 \times 6.67 = 2,601.3$ | $2,601.3 \times 180 = 468,234$ | 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. 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. 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.
- 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 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.
- 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.



DRAWINGS

Drawing 1 Site Drainage Plan

Drawing 2 Ecological Receptors

Drawing 3 Human Receptors

Drawing 4 Site Layout



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) | Calder Valley Skip Hire, Belmont Industrial Estate, Rochdale Road, Sowerby Bridge, Halifax, HX6 3LL | Tel: 01422 833333 Email: joesawrij@caldervalleyskiphire.co.uk |

Appendix B

List of Waste Codes

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

| EWG 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 |
| 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 |
| 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 |
| 16 | Wastes not otherwise specified in the list |
| 16 01 | 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) |
| 16 01 03 | End-of-life tyres |
| 16 02 | Wastes from electrical and electronic equipment |
| 16 02 14 | Discarded equipment other than those mentioned in 16 02 09 to 16 02 13 |
| 16 02 16 | Components removed from discarded equipment other than those mentioned in 16 02 15 |
| 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 | 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 06 | Dredging spoil other than those mentioned in 17 05 05 |
| 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 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 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.

Appendix C

Electrics Certificate