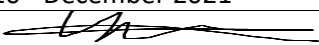




Fire Prevention & Mitigation Plan

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Requirement:	FPMP	Variation application
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This document has been prepared in good faith with care and diligence, based on information provided by the client or known to be available at the time. The document fully satisfies the agreed work profile. Documents inherited and adapted for this application received from Crestwood Environmental Ltd.

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1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1 Environmental Focus Ltd has been commissioned by SL Recycling Ltd to prepare a Fire Prevention and Mitigation Plan (FPMP) to support an application to vary the current Standard Rules Environmental Permit, issued July 2019 ref: EPR/BB32299FN, which authorises activities that correspond to those specified in SR2008 No 3 (household, commercial and industrial waste transfer station with treatment) and SR2012 No 14 (metal recycling, vehicle storage, depollution and dismantling (authorised treatment) facility, to a Tier 3 Bespoke Environmental Permit.
- 1.1.2 New EWC codes have been applied for, as has the treatment of shredding metal wastes outside of a building.
- 1.1.3 The application refers to operations that take place at Unit 1, Pontyfelin Industrial Estate, New Inn, Pontypool, Torfaen, NP4 0DQ (*the Site*).
- 1.1.4 This FPMP has been prepared in accordance with National Resources Wales Fire Prevention and Mitigation Plan Guidance-Waste Management New Guidance Note 16 version 2 August 2017.

1.2 THE SITE

- 1.2.1 The Site is located on the Pontyfelin Industrial Estate approximately 3km south of Pontypool Town centre. The Site neighbours are mixed industrial use land to the north, the A4042 dual carriageway to the west, the Newport Road to the south and the River Afon Lwyd valley to the east. The nearest residential properties are on the eastern side of the Afon Lwyd valley circa 60 m east of the Site.
- 1.2.2 A Site of Importance for Nature Conservation (SINC), the Pontyfelin verge and ditch, is located within 50m of the boundary of the Site. A non-statutory site, it comprises of species rich marshy and neutral grassland and shrub that provides good connectivity for otters. A further SINC, the river Afon Lwyd is located less than 100m from the Site.
- 1.2.3 The Site formerly housed a High Temperature Incineration plant operated by Shanks Waste Management Ltd. under a permit issued originally by the Environment Agency. Operations ceased in 2003 and the Site has been progressively decommissioned, demolished and cleared during the intervening years. SL Recycling acquired the Site and have been operating as a non-hazardous waste transfer station and a facility for metal recycling and authorised depollution of used vehicles since July 2019.

1.3 FIRE PREVENTION OBJECTIVES – OUTLINE METHODOLOGY

- 1.3.1 The purpose of this FPMP is to ensure that all reasonable measures are undertaken to prevent a fire.
- 1.3.2 The FPMP has been prepared in accordance with National Resources Wales issued Fire Prevention and Mitigation Plan (FPMP) Guidance version 2, issued August 2017. It provides a plan to minimise the likelihood of fire breaking out, a means of extinguishing fire if it broke out, and a statement of methods designed to minimise the spread of fire.

1.4 OVERARCHING MANAGEMENT RESPONSIBILITY

- 1.4.1 The Site Manager has the responsibility for ensuring that the potential for fire outbreak arising from operations on the Site is minimised. Adequate staffing levels is maintained at all times to ensure the effective operation of the facilities.
- 1.4.2 In line with current industry best practice, the fire prevention controls set out in the sections below are used as the 'appropriate measures' to minimise the risk of and, wherever possible, prevent outbreak of fire associated with Site operations at Unit 1, Pontyfelin Industrial Estate, New Inn, Pontypool, NP4 0DQ.

1.5 METHODS AND PROCEDURES TO MAINTAIN COMPLIANCE

- 1.5.1 Site meetings are held regularly, i.e. during monthly Health and Safety meetings, for Site management to discuss current and planned Site operations with respect to their potential for generating fire and accordingly the FPMP is updated as necessary. Identified actions arising from the meetings and responsibilities for their completion is recorded within the meeting minutes prior to circulation within SL Recycling Limited to the relevant personnel.
- 1.5.2 Additional and more frequent reviews of the FPMP will be carried out to reflect any changes to operations on-Site and in circumstances that warrant the requirement. Such instances include but are not limited to: an increase in waste quantities accepted on-Site, specifically combustible materials; after any fire incidents in order to make improvements if required; any development made on-Site such as modifications to existing buildings or the incorporation of new infrastructure and/or the installation of new equipment or plant.
- 1.5.3 The FPMP is a live, working document which is made readily available and clearly identified on Site and all staff are aware of the location of the plan. It is referenced in the Environmental Management System (EMS) and there is a requirement that all contractors working on Site and all visitors are briefed on the contents of the FPMP.
- 1.5.4 Briefing for visitors and contractors will include the provision of the correct safety and fire prevention procedures to be carried out in the event of a fire. This involves ensuring they are aware of the information in Section 8 'Fire incident and Procedures – Emergency Plan'. In addition, the locations of fire extinguishers and the assembly point will be pointed out.
- 1.5.5 All staff receive training, which includes on-Site fire drills, with regards to the measures and procedures outlined in the FPMP with refresher training conducted quarterly. New employees will receive inductions which will involve the same training with records of all training maintained to ensure refresher courses are carried out as scheduled. Reference should be made to Section 8 'Fire incident and Procedures – Emergency Plan'.
- 1.5.6 Regular Fire Prevention Plan Exercises are carried out quarterly. The frequency of exercises will be reviewed and changed depending on the results of exercises, reviews of incidents and near misses and the turnover of staff.

2 SITE PROCESS DESCRIPTION

2.1 WASTE ACCEPTANCE

- 2.1.1 The current application proposes that the waste transfer station accepts up to 50,000 tonnes of non-hazardous household commercial and industrial waste per annum (inclusive of wood and inert), the metal recycling and vehicle storage, depollution and dismantling facility a further 60,000 tonnes of waste metal (of which less than 10,000 tonnes a year is waste motor vehicles). In addition, the amount of wood wastes accepted on-Site does not exceed 10,000 tonnes at any one time. All waste streams arise predominantly from the local area and are delivered predominantly by HGVs and vans.
- 2.1.2 Materials brought to waste transfer station are processed within 2 weeks for general mixed household, commercial and industrial waste, and 3 weeks for all remaining waste types. Continuous separation of and where necessary removal off Site of up to 100 tonnes per day of waste within a maximum of one month ensures a regular turnover of material in the waste transfer station. This operational practice mitigates against the development of hot spots.
- 2.1.3 The site plan shows the layout of the Site facilities, operational areas, stockpile dimensions (table 3) and Environmental Permit boundary.

2.2 SITE ACTIVITIES

- 2.2.1 The waste transfer station enclosure incorporates a vehicle entry point for the deposition of household waste. The enclosure is constructed with Legato L8 blocks to either side to a height of 5m with openings to the front and rear to ensure the 'first in, first out' principle is adhered to. Installed on top of the walls is a bespoke fabric waste management shelter manufactured from polyethylene non-corrosive cladding.
- 2.2.2 A banksman instructs lorry drivers to reverse into the enclosure for off-loading. Recyclables are removed whilst the load is being tipped and transferred to an authorised energy for waste facility. The remaining materials are sorted and separated within the confines of the enclosure before the transfer to the relevant waste bay on the Site.
- 2.2.3 Upon deposition of all wastes and during the sorting process, should any batteries be located, they will be removed and stored in the enclosed skip used for battery storage which has the capacity of 2,106 litres (2.106 m³). It is positioned as such to enable easy access should there be a fire within it or if there is a requirement for its removal off-Site or for its transferral to the quarantine area. Any items likely to contain batteries or a battery unit will be inspected for their presence and, in the event that any are found, they will be stored in an enclosed lidded container as outlined above.
- 2.2.4 Household, commercial and industrial wastes for recovery or disposal off-Site are manually sorted or with the aid of plant if required, separated and bulked up whilst all bulking of non-hazardous wastes is carried out internally within the waste transfer station enclosure.
- 2.2.5 Metal recycling involves the sorting, separation, grading, shredding, shearing, baling, compacting, granulating of cables and cutting (using only hand-held equipment) of ferrous metals or alloys and non-ferrous metals for recovery. Pre-sorting also enables the detection of any tramp metals which are removed and stored in an enclosed skip. Storage and recovery of waste motor vehicles also takes place on Site in a designated bay with treatment comprising of dismantling and depollution only.

- 2.2.6 End of Life Vehicles are received via the weighbridge, where they are inspected for quality and contamination prior to transferal to designated depollution bays within the Site. These bays are fitted with interceptor drainage systems to eliminate the possibility of ground contamination. On receipt of the vehicle, inspections are initially made for the presence of batteries. If any are installed, they will be disconnected and removed as a matter of priority to the dedicated enclosed skip on-Site. The motor vehicles are manually depolluted and the shells of the ELVs are baled before being removed from site.
- 2.2.7 Separate bays constructed with Legato LG8 blocks are used for the storage of wood and metal. Fully sealed skips are also used for storing batteries and metal filings. All containers are stored on an impermeable concrete pavement, which drains to surface water lagoon, via a 3-stage petrol/oil interceptor. The base and side walls of the lagoon are lined with an impermeable plastic liner. The Site Layout is shown on the attached plan. The skips are stored in a location where access can be easily gained from at least 3 sides.
- 2.2.8 Hazardous wastes from vehicle depollution are stored and dispatched in separate areas of the Site or in separate containers as appropriate at all times to avoid mixing of the two. The Operator is aware that under the Hazardous Waste (England and Wales) Regulations 2005, Regulation 18 prohibits the mixing of hazardous waste with non-hazardous waste.
- 2.2.9 Lead acid batteries are sorted and separated from other wastes but are not treated. They are stored in an enclosed skip, with acid resistant base and a cover to prevent rainwater ingress. The maximum quantity of hazardous waste treated for disposal or recovery does not exceed 10 tonnes per day whilst the maximum quantity stored at one time does not exceed 50 tonnes. This does not include end of life vehicles awaiting depollution. No more than 25 tonnes of intact waste vehicle tyres are stored on Site at any one time.
- 2.2.10 The waste transfer station enclosure has an impermeable base and is surrounded by a kerbed area, which drains by gravity to the lagoon, via the interceptor. The kerbed area is aligned with the Site boundary, which incorporates the enclosure. The purpose of the design is to ensure that rainwater and any inadvertent liquors or fire water (in the unlikely event of a fire) are fully contained and drained to the lined lagoon.
- 2.2.11 There is a pre-existing building on the on-Site which housed the laboratory of the previous company. An area to the back of the building is used to store cardboard in a free stack with the maximum dimensions of 10m x 6m x 4m. A line is painted across the side and back of the wall at 4m to ensure the stockpile does not exceed this height. The stockpile generally on site is not near this maximum size, typically the pile is 5m x 4m x 2m. The building is of adequate size to house this stockpile and allow for the required access around the stockpile.
- 2.2.12 Access is gained via the one-way internal road to the back of the building which has no rear wall therefore the entire side of the building is open. It is constructed internally of bricks whilst the external walls are cladded. It also houses two fire extinguishers, drainage mats for the covering of the adjacent drains for the containment of firewater.
- 2.2.13 Wood wastes listed in Appendix 1 are stored securely in the designated bay shown on the appended plan where it is also sorted and separated for recovery purposes. Quantities of waste stored does not exceed 10,000 tonnes in total at any one time and no more than 15,000 tonnes will be accepted at the Site over a yearly period. No waste is stored for longer than 2 weeks.

- 2.2.14 No substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) Regulations are used at the Site for the operation of the facility. There are no cylinders or gas cylinders in use or stored on the Site.

3 ENVIRONMENTAL SETTING

3.1 SURFACE WATER / RIVERS

- 3.1.1 There is one main river, the Afon Lwyd, which generally flows parallel to the east of the perimeter at a distance of circa 40-50m. Surface water run-off from the Site is discharged to a holding lagoon situated at the southeast corner of the Site with water tankered off-Site as required to the local wastewater treatment facility.
- 3.1.2 There are no surface water abstractions likely to be affected by this Site.

3.2 GROUNDWATER

- 3.2.1 The British Geological Survey (BGS) maps state that the Site solid geology bedrock are sediments comprising mudstones siltstones and sandstones of the Raglan Marl group (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>). This solid strata is overlain by alluvial deposits of silts clays and sandstones.
- 3.2.2 In hydrogeological terms, the underlying strata is classed as a minor aquifer. There are no groundwater abstractions likely to be affected by the Site.

3.3 DESIGNATED SITES

- 3.3.1 Although there are no Environmental Designated Sites within 500m of the Site, there are seven areas designated by Torfaen District Council as non-statutory Sites, Sites of Importance for Nature Conservation (SINC); details are outlined below and includes the SINC name/Grid ref/distance/habitat:
- Pont-y-felin verge & ditch (196). Grid ref: 302986. Distance 50m. Species rich marshy/neutral grassland & scrub – good connectivity for otters.
 - Butchers Wood (183). Grid ref: ST297985. Distance 250m. Wet woodland/ancient woodland.
 - Butchers grassland (194). Grid ref: ST297985. Distance 380m. Neutral grassland/ancient woodland.
 - Craig Y Felin field (67). Grid ref: ST300983. Distance 320m. Species rich neutral/marshy grassland.
 - Pont-Y-Felin rush pasture (120). Grid ref: SO302984. Distance 150m. Rush pasture, species poor flora overall, richer along the edges.
 - Craig Y Felin wood (98). Grid ref: ST301980. Distance 450m. Ancient woodland, partially replanted.
 - Afon Lwyd (195). Grid ref: ST302986. Distance <100m. TCBC watercourse.

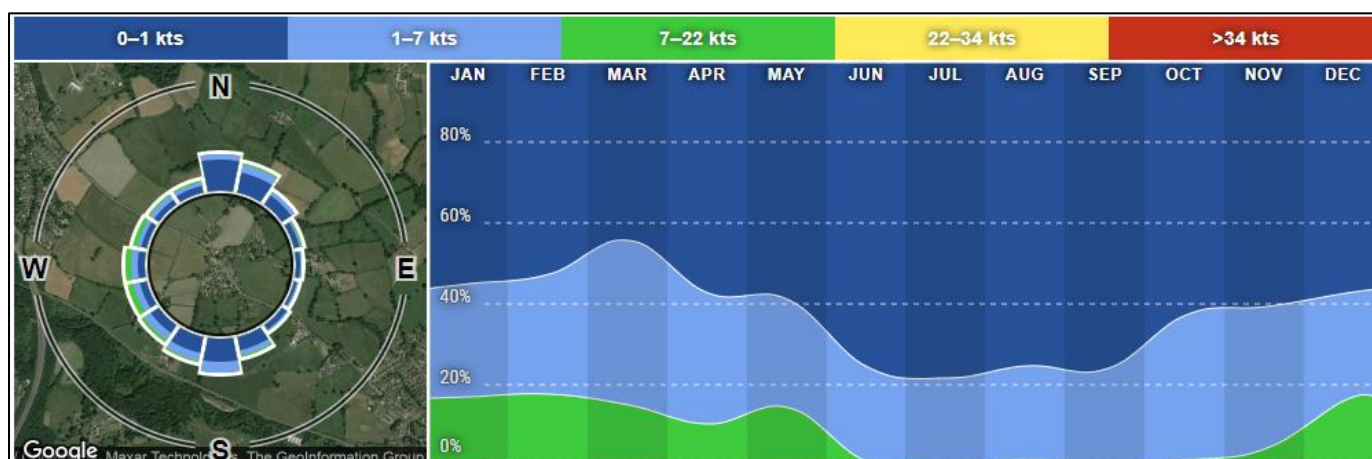
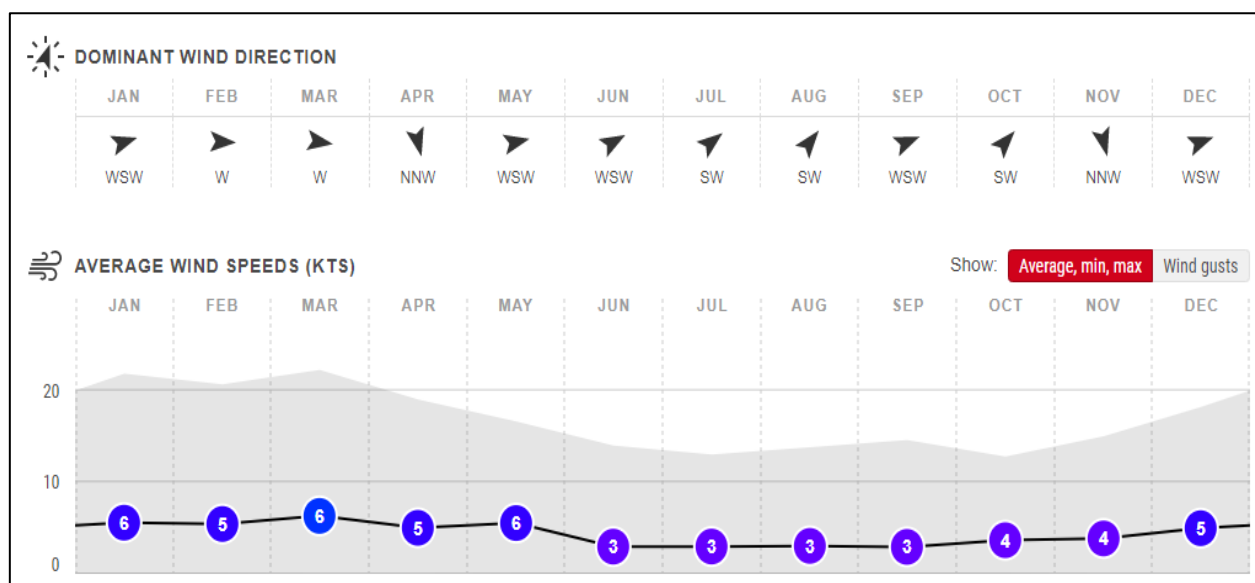
- 3.3.2 At the closest extent, the Llandegfedd Reservoir, designated as a Site of Special Scientific Interest (SSSI), is located 1497m to the north-east of the Site's boundary.

3.4 AIR QUALITY AND PREVAILING WINDS

- 3.4.1 The Site does not lie in a designated Air Quality Management Zone. According to DEFRA's Background Air Pollution Mapping Data, 2020, background emission concentrations in the locality of the Site are $9.08\mu\text{g}/\text{m}^3$ and $10.79\mu\text{g}/\text{m}^3$ for NO_2 and PM_{10} respectively. National air quality objectives and European Directive limits and target values stipulate that concentrations of PM_{10} measured at 24-hour mean levels should not exceed $50\mu\text{g}/\text{m}^3$ for more than 35 times a year. NO_2 concentrations should not exceed $40\mu\text{g}/\text{m}^3$ when measured on an annual mean basis. Based on background concentrations, the air quality in the vicinity of the Site is unlikely to exceed these parameters.

- 3.4.2 Statistics based on observations taken from the nearest weather station at Llanfrechfa, (c. 20 km south-east of the Site) between April 2012 and September 2020 indicate that, although the prevailing winds are variable, they originate predominantly from the west-south-west with an average speed of 4 knots. The rose diagram in Diagram 4 is conducive of this showing the wind strength distribution and direction is also chiefly from the W-S-W. (see Diagram 1). Data obtained from <https://www.windfinder.com/windstatistics/llanfrechfa>

Diagram 1 Average Prevailing Wind Direction and Speed



3.5 SENSITIVE RECEPTORS

- 3.5.1 A review of potentially sensitive receptors within a 1km radius of the Site has been undertaken using the hierarchy of hospitals, schools, childcare facilities, elderly housing and convalescent facilities i.e. areas where inhabitants are more vulnerable to the adverse effects of exposure to smoke. Food manufacturers, major infrastructure and protected sites such as SSSIs, SPAs and SCAs are also considered, see Table 1 and Figure 1. Residential properties are considered separately and their locations are detailed in Table 2 and Figure 2.
- 3.5.2 In terms of predicted exposure risk, levels have been determined via a qualitative assessment which evaluates the likelihood of exposure to smoke emissions based on the receptors' proximity to the Site and the location of the sensitive receptors in regard to the prevailing wind direction as shown in Figure 1 above.
- 3.5.3 A 1km radius has been applied as it reflects the maximum potential distance that smoke could reasonably be expected to cause affects in extreme meteorological conditions without any mitigation measures in place. A summary of the identified potentially sensitive receptors within this range along with the overall exposure levels and principal receptor features has been tabulated in Table 1. For each receptor within the categories the determination of the overall risk classification has been based on the dominant risk level.
- 3.5.4 Within a 1km radii of the Site, no protected sites such as SSSI's, SAC, SPA or RAMSAR have been identified.
- 3.5.5 Due to the density of developed areas in the locality and the associated large quantity of identified sensitive receptors, residential properties have been tabulated separately from those categorised in Table 1. Table 2 summarises the residential properties orientation and distances from the Site.

Table 1 Representative Sensitive Receptors (excluding residential properties).
(Reference Point refers to locations on Figure 1)

Receptor Hierarchy	Facility and Reference Point	Distance and Direction from Site (m)	Overall exposure level	Comments
Medical Facilities	New Inn Medical Centre (1)	974 NE	Low	Although located downwind of the dominant prevailing wind it is considered remote from the Site. Pathways are also restricted by intervening infrastructures, trees and hedgerows.
	Tafarn Newydd Children & Families Services (2)	880 NE	Low	As above
	Griffithstown Primary School (3)	715 W	Low	Relatively distal from the Site with a low frequency of winds from source to receptor.
	Griffithstown Infant and Nursery School (4)	845 NW	Low	There is a medium frequency of winds towards the receptor and it is remote from the Site

Childcare	Cyfeillion Bach Nursery (5)	515 W	Low	Relatively distal from the Site with a low frequency of winds from source to receptor.
Elderly Housing	Rowan House Nursing Home (6)	830 NW	Low	Not downwind of prevailing conditions and distal from the Site.
	Panteg Nursing Home (7)	610 W-SW	Low	Located upwind of the dominant wind direction and not in close proximity to the Site.
Recreational Areas	Playing Field (8)	200 N-NE	Medium	Downwind of prevailing conditions and reasonably close to source.
	Craig-y-Felin Wood (9)	340 S	Low	Although relatively proximal to the Site it is located upwind of the prevailing wind direction
	Sports Ground (10)	590 NW	Low	There is a medium frequency of winds towards the receptor and it is local to the Site
	New Panteg Rugby & Football Club (11)	602 N	Medium	Downwind of prevailing conditions and reasonably close to source.
	Panteg Cricket Club (12)	680 W-SW	Low	Located upwind of the Site and is reasonably distal.
	Panteg Park (13)	990 W	Low	Remote from the Site and there is a low frequency of winds from source to receptor
Places of Worship	New Inn Congregational Church (14)	245 NE	Medium	Directly downwind of the Site and prevailing wind. Relatively proximal to the Site
	St Marks Church Panteg (15)	585 NE	Low	Although located downwind of the dominant prevailing wind it is considered relatively distal from the Site. Pathways are also restricted by intervening infrastructures, trees and hedgerows.
	Griffithstown Baptist Church (16)	715 NW	Low	Not downwind of prevailing conditions and distal from the Site.
	Methodist Church (17)	590 NE	Low	Directly downwind of the Site and prevailing wind but relatively distal from the Site
	St Oswald Church in Wales (18)	720 SW	Low	Located upwind of the dominant wind direction and not in close proximity to the Site.
	Griffithstown Congregational Church (19)	823 NW	Low	Not downwind of prevailing conditions and distal from the Site.
	St Hildas Church Hall (20)	910 NW	Low	As above
	St Marys Church, Panteg Church Hall (21)	890 N	Low	There is a high frequency of winds from source to receptor but the receptor is considered to be remote from the source
Other	Gwent Police (22)	505 NE	Low	Directly downwind of the Site and prevailing wind but relatively distal from the Site
	Railway Museum (23)	527 W	Low	Relatively distal from the Site with a low frequency of winds from source to receptor.

	Fire Station (24)	670 NW	Low	Not downwind of prevailing conditions and distal from the Site.
	New Inn Community Hall (25)	730 N-NE	Low	Directly downwind of the Site and prevailing wind but relatively distal from the Site
	Pontefelin Industrial Estate (26)	0 – 576 N-NW	Medium	Although there is a low frequency of winds towards this receptor, it is adjacent to the Site

Figure 1. Sensitive Receptors within a 1km radius of the Site (red line denotes the boundary of the Site)

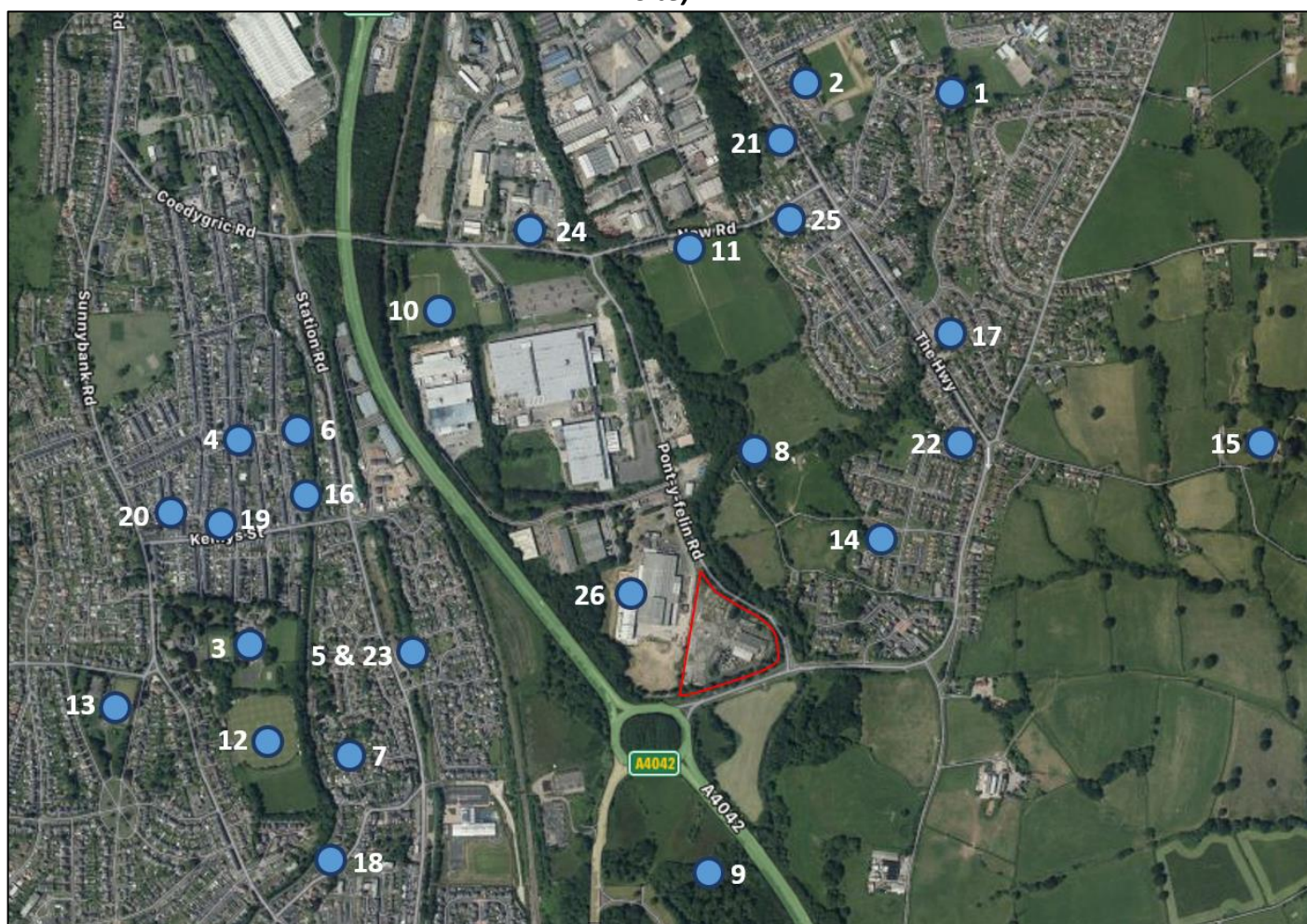
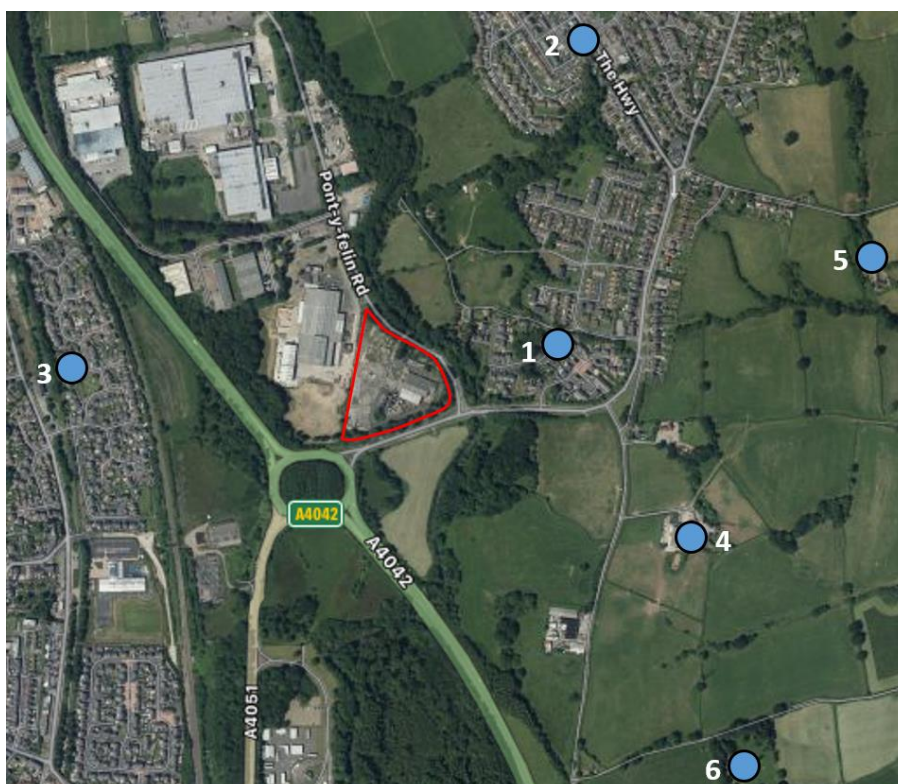


Table 2 Distances to Selected, Representative Residential Properties/ Sensitive Locations (reference point refers to location numbered on figure 3).

Location in relation to the Site	Reference Point	Min/Max Distance(m) from Site Boundary	Overall Exposure Levels
NE	Residential Housing Estate around Pont-y-felin Lane & Coed-y-felin, Lower New Inn (1)	60-470	Medium
NE	Residential Housing Estate around the Highway (2)	405-1000	Low
W	Residential Housing Estate adjacent to the railway track (3)	320-1000	Low
SE	Ty-Coch Farm (4)	405	Low
E-NE	Church Farm (5)	705	Low
SE	Ty-Cadno Farm (6)	720	Low

Figure 2. Residential Sensitive Receptors within a 1km radius of the Site (red line denotes the Site boundary)



4 FIRE PREVENTION

4.1 FIRE PREVENTION PLAN

- 4.1.1 This FPMP is readily available and clearly identified on Site and all staff are aware of the location of the Plan. It is referenced to in the EMS and there is a requirement that all contractors working on Site are briefed on the contents of the Plan.
- 4.1.2 Regular FPMP Exercises are carried out on a quarterly basis although frequency will change depending on results of exercises, any incidents and turnover of staff.
- 4.1.3 The following aspects have been considered to make up this FPMP.

4.2 WASTE STORAGE DURATION

- 4.2.1 The waste transfer station enclosure has a design capacity capable of separating up to 100 tonnes/day per day of incoming material. The maximum period of storage is 1 week with a further week for processing and/or removal of waste off Site. The short turn-around time of a maximum of 2 weeks ensures the mitigation against the build-up of hot spots.
- 4.2.1 Incoming wastes are typically processed on a first in first out basis, albeit that any potentially flammable wastes or wastes that have been placed in quarantined storage will be prioritised for removal.
- 4.2.2 The use of first in first out principles ensures the Site operates a rapid turnover of waste materials and that the waste transfer station bays are emptied every month so that all materials are removed and the bays are totally emptied (including the corners of the bay). This prevents the potential for any build-up of material and ensures that any degradable materials are rapidly removed.
- 4.2.3 Site cleaning procedures include sweeping out the bays and skips, including the corners, to ensure all material is removed and potentially combustible residues do not remain in-situ. Operational staff record the housekeeping of the bays and skips on the appropriate checklist, maintained in the Site office, in order to adhere to the maximum emptying and cleaning frequency of 1 month.
- 4.2.4 Waste streams are separated upon arrival in order to ensure incompatible wastes are stored and treated separately. All waste metals and vehicles are stored in adjacent bays constructed from fire-resistant concrete Legato L8 blocks .
- 4.2.5 Material contained within the waste transfer station enclosure are separated manually or by dedicated plant no longer than 1 day from deposit to ensure incompatible wastes are segregated from one another and any unstable wastes are stored appropriately either within a dedicated container for batteries or the quarantine area. Wastes are then transferred to the relevant bay on-Site according to the waste type.
- 4.2.1 All metal wastes, including ELV's will be stored for no longer than 3 weeks. Any treatment or process carried out on such wastes will take place within this period. Household, commercial and industrial waste streams therefore generally remain on-Site for a shorter timeframe than metal wastes, ELV's and wood. Table 3 below indicates the storage times of the waste streams accepted at the Site along with the duration on-Site for both the processed and un-processed material.

Table 3 Duration of Different Waste Streams on-Site (*italics are resultant from on-site processes*)

Incoming waste type	Per day tonnage (approx.)	How managed	Form accepted	Storage total tonnage (pre/post treatment)	Length of storage (pre/post treatment)	How stored (pre/post treatment)	Max. Stockpile size (LxWxH) and volume (m3)
General waste	60	Manually picked	Loose	120/40	(2 days / 1 week)	(Loose/loose)	17 x 7 x 4 476
Cardboard	20	Bulked up only	Loose	No treatment 30	(no treatment / 1 week)	(Loose/loose)	10 x 6 x 4 240
Wood	30	Manually separated	Loose	30/15(each type)	(1 week / 1 week)	(Loose/loose)	10 x 5 x 4 200
Metal (ferrous)	100	Sorted, shredded (<i>see below</i>)	Loose	800/800	(1 week / 1 week)	(Loose/loose)	20 x 20 x 4 1600
Metal (non-ferrous)	25	Sorted, manually cut	Loose	25/75	(1 week / 3 days)	(Loose/loose Bagged)	7 x 4 x 4 112
ELVs (units)	50	Depolluted	Loose	50units/100t	(2 weeks / 48hrs)	(Loose/baled)	20 x 7 x 4 (pre-depol) (13 x 8 x 4 baled) 560 (416)
Separated fractions of general waste	20	Bulk up only	Loose	<i>n/a as after separation/ 10 metal, 7 wood, 3 card (approx.)</i>	<i>(1 week post separation)</i>	<i>(Loose/loose)</i>	<i>Join above stockpiles for each of wood, metal & cardboard</i>
Residual element of general waste	40	Bulk up only	Loose	<i>n/a as after separation/ 120</i>	<i>(post-separation for 3 days)</i>	<i>(Loose)</i>	10 x 5 x 4 200
Liquids from ELV	3T/year oil 0.4t fuel	Bulk up only	From ELV	3	When full	(IBC)	<i>n/a 3xIBC</i>
Batteries from ELV (units)	50	Bulk up only	From ELV	10	2 weeks	(Sealed containers)	<i>n/a sealed containers</i>
Shredded metal	150	Bulk up only	Loose	<i>From treatment/75t per pile</i>	2 weeks	(loose)	8 x 5 x 4

- 4.2.2 In the event of closedown, waste will be diverted to alternative sites in the area. The preferred site is SL Recycling's sister facility in Hengoed, which has the benefit of a Bespoke Environmental Permit.
- 4.2.3 Waste acceptance procedures require that unloading of waste deliveries are supervised by Site staff.
- 4.2.4 All stockpile sizes and separation distances will be monitored daily by the TCM and/or site supervisor, if deviations from the table are noted then emergency measures including the removal of waste will be implemented within 24-48 hours.

4.3 QUARANTINE AREA

- 4.3.1 A main quarantine area is designated on the yard at a size of 23m x 23m. It is clearly identified on the Site plan and marked to allow the segregation of identified unsuitable material and separation from incoming waste. Quarantined waste is removed within 24 hours of deposit via the appropriate plant machinery on-Site (360° material handler, loader) depending on the waste type and size. It will be transported to an authorised facility that accepts the waste type quarantined in one of SL Recycling's large goods vehicle (LGV) or heavy goods vehicle (HGV) as appropriate. Material subjected to a fire incident will be removed immediately in the manner described above for all quarantined waste.
- 4.3.2 A secondary quarantine area if required is available and detailed on the site plan, measures 16m x 16m.
- 4.3.3 Suitable on-Site plant i.e. 360° material handler, loader or trucks will be used to transfer any material on-Site that needs to be transferred to the quarantine area such as burnt material or non-conforming waste types that have been inadvertently accepted or detected.
- 4.3.4 The quarantine area is in accordance with the Fire Prevention Plan Guidance in that it is clearly labelled, it has the capacity to hold at least 50% of the largest pile and it has a separation distance (from Site perimeter and other stored waste) of at least 6 metres around the quarantined waste. There is an adequate hose reel capacity to reach the quarantine area from the water storage tank.

4.4 MONITORING OF STOCKPILES AND WASTE BAYS

- 4.4.1 All deliveries of incoming material to the reception bays are supervised by operational staff. All stockpiles are subjected to visual monitoring at the start and end of the shift in addition to after lunchtime with results recorded on a log which is retained in the Site office. Operatives also visually inspect the waste piles for any signs of heat build-up or hot spots. Staff are trained in such methods (refer to paragraph 8.1.1 for details).
- 4.4.2 Due to the quick turnaround of waste on-site, the probability of self-combustion is unlikely, and the most probable cause of fire is arson. The presence of the CCTV (with thermal imaging technology) will therefore act as a deterrent and minimise the likelihood of a fire occurring.
- 4.4.3 In view of the fire prevention measures outlined above in Section 4.4.1 and 4.4.2, the possibility of the fire spreading within the Site itself or to neighbouring locations is minimised.
- 4.4.4 All waste stockpiles in the waste transfer station enclosure, skips and external areas are inspected at the beginning and end of the operational day as well as after the lunchtime break to identify any hot

spots. As well as visual checks, the thermal imaging cameras are used across the site to detect the temperature of every stockpile during these inspections. When the storage time exceeds those identified, a thermal probe is physically inserted to the core of the stockpile (with a trigger level of 47°C used as an indicator of a hot spot).

- 4.4.5 Stockpile core temperatures will be checked when the stockpiles are turned. This allows for the operator to gain access to the deepest part of the stockpile and record accurate conditions within the stockpile. Turning will not only be initiated when storage time are exceeded but also when the thermal cameras identify an area of concern (potential self-heating).
- 4.4.6 Staff are trained to look for indicators of hot spots such as steam, smoke, flames or odours associated with heat (i.e. burning and smoke) during the inspections. In addition, inspections include the observation for the presence of dust, fluff and/or loose combustible material. Should any be found, housekeeping equipment in the form of brushes, shovels, mops and cleaning products will be used to remove the material prior to disposal in the appropriate container or bin. No treatment, shredding or crushing of material takes place on Site so wastes are stored in their largest form.
- 4.4.7 The Environment Agency commissioned BRE Global Limited to carry out a review of Fire Prevention Plan document '160527 FPP v3 final draft. The BRE Global report includes the results of isothermal self-heating test data (based on test methodology in BS EN 15188 "Determination of spontaneous ignition behaviour of dust accumulations') on a range of waste types comprising: wood chip, rubber crumb and secondary recovered fuel (SRF). The time to ignition determined during the testing ranged from 74 to 106 days storage for a 4 m high stockpile of waste.
- 4.4.8 Waste stockpile heights on Site are a maximum of 4m, the height limit stipulated in the BRE Global review, and as waste stored in the bays and skips, including wood, paper, plastic etc are only stored on Site for a maximum of 2 weeks (refer to Table 3 for storage durations) it is highly unlikely that spontaneous ignition of waste will occur on site. Notwithstanding this as a worst-case scenario, a trigger level of 47°C is used on site. This gives the Operator an early warning that temperatures may approach 57°C, which is the lowest critical temperature determined during the BRE Global trials for spontaneous ignition to occur in a 4m high stockpile of wood chip. This is seen as a very conservative approach to ensure that temperatures where spontaneous combustion could occur are never reached.
- 4.4.9 If the trigger level of 47°C is reached in any waste stockpile, the stockpile would be separated out, reduced in height and doused with cold water throughout to reduce its temperature. Water would be applied via one of the three bowzers on-Site or by a hose and care taken to ensure that all materials are cooled by monitoring the temperature once hosing has ceased.
- 4.4.10 Wastes are not burnt at the site and there is no waste incinerator plant on site therefore no source of ignition. Any hot works activities are undertaken in a designated bay bound on three sides by fire proofed walls and it is not conducted within 6m of any combustible or flammable waste.

4.5 CONTINGENCY PLANS AND SEASONALITY

- 4.5.1 In the event of an un-planned incident on Site, the waste delivery drivers will be contacted with instruction to divert their waste loads to an alternative permitted waste site (e.g. SL Recycling site in Hengoed).

- 4.5.2 The waste types to be stored at the site and not impacted severely by seasonal changes from an outlet perspective. The market for metals, wood, paper, plastic and to a lesser extent cardboard are buoyant and the material can be readily removed from site. SL Recycling have longstanding relationships with the outlet companies as the site has been fully operation for some time.
- 4.5.3 Seasonal variations will impact waste storage so far as input volumes are concerned as times such as Christmas would see increases to input level. However, this will not impact upon stockpile storage time as the processes on site are effectively managed and can easily cope with an increase in supply. This has been the case over the past few years. The materials will be sorted within the timescales identified in this plan and the material will be booked out routinely. More staff and trucks can be called upon if required to cope with the demand.
- 4.5.4 When researching market condition, the 'letsrecycle' website has been used for sector relevant data, it is apparent that prices across all waste streams accepted are stable. Additionally, with the increasing focus on a circular economy in Wales, the recycling of materials to bring them back into use is allowing the industry to develop a strong network and maintain outlet feasibility.
- 4.5.5 If for some reason the timescales and stockpile dimensions detailed cannot be maintained SL recycling have several other options and permitted sites that material can be diverted to (S L recycling in Hengoed being the main contingency site). If this site is not able to take material then waste input will be diverted to other facilities that can take the material (GLJ metals (metals) and Bryn Recycling (all other types)).

4.6 ARSON

- 4.6.1 The Site is surrounded by security fencing and lockable gates and controlled vehicular entry during working hours. The Site is also fitted with CCTV monitoring to detect any attempts at unauthorised entry.

4.7 LEAKS AND SPILLAGES

- 4.7.1 Oils and fuels stored on-Site from the depollution process and for maintenance purposes are stored in drums which are placed on drip trays to contain any leaks or spillages. They are inspected twice daily at the beginning and end of the working day for any defects or deterioration of the drums.
- 4.7.2 A registered facility collects or empty the drums when they are three-quarters full and transfer off-Site for disposal or recovery.
- 4.7.3 In order to prevent fuels and combustible liquids leaking or trailing from Site vehicles, they are inspected twice daily for any leaks. Spill kits are kept in all of the facilities trucks, vans and plant. In addition, there are spill kits in the ELV area and in strategic places around the Site. Reference should be made to the site plan for their locations.
- 4.7.4 On receipt of ELV's at the weighbridge, a Site operative inspects the vehicle for leaks or spillages to prevent any fuels or oils being dispersed around the Site. If a leak is identified, it will be contained whilst the vehicle is transported to the de-pollution area and, should there be any spillages, spill kits will be used to absorb the liquid. Once the ELV's have been de-polluted, they are inspected again for any leaks.

- 4.7.5 The materials used for cleaning-up any spillages will be placed in the disposable bag provided in the spill kit and secured with the tie. The bag is then transferred to a relevant licenced facility which accepts such wastes.

4.8 PLANT AND EQUIPMENT

- 4.8.1 An Operating and Maintenance Manual is held by Site management in line with SL Recycling procedures for plant and equipment. As a part of these procedures all plant and equipment on Site which requires maintenance are assessed for fire risk. Checks are programmed and records retained with a log of maintenance carried out.
- 4.8.1 Site vehicles are fitted with dust filters and fire extinguishers. Vehicles and equipment are regularly inspected for electrical faults, tramp metal, dust, fluff and for any fuel or combustible liquid leakages. Spill kits are readily available on the Site and within each vehicle in the event of such leaks. When not in use mobile plant are stored away from any combustible waste materials. A log of inspection and maintenance of all plant and equipment will be maintained which will include a record of any spills or leakages and/or the presence of tramp metal and the action taken.

4.9 INFRASTRUCTURE AND SITE INSPECTIONS

- 4.9.1 A programme of Site inspections are scheduled for all operational areas as a part of Site operating procedures. Records of these inspections are a standard requirement of each working day. Records are kept of inspections with requirements for maintenance and actions taken.

4.10 ELECTRICAL FAULTS

- 4.10.1 All electrical work on Site is carried out by fully certified qualified electricians and it complies with the relevant British Standard for design and installation of electrical equipment. Detailed operational manuals for any equipment requires equipment to be checked and maintained as part of a planned maintenance regime. In particular, vehicles and equipment are regularly inspected daily by Site operators for electrical faults and serviced as required for each specific type of equipment or plant

4.11 SMOKING POLICY

- 4.11.1 The Site operates a strict no smoking policy.

4.12 HOT WORKS

- 4.12.1 For the purposes of burning off alloy wheels and for cutting oversize metal prior to processing, a hot works `burning bay` is installed on the Site.
- 4.12.2 A hot work management system is operated and applies to staff and contractors. A fire watch conducted for a minimum of 30 minutes is carried out after hot works are finished and specifically revisited at the end of the working day by staff trained in the assessment of risks associated with hot work. It is considered 30 minutes as a minimum is sufficient as there will be no flammable material stored within the bay post hot works. The bay will be empty aside from those materials that have been subject to heating. This will remain the case for the working day. The area will be checked by the operator who was undertaking the hot works for a minimum of 30 minutes, once this period has

passed, the TCM will be notified by the operator and the area will be checked at random intervals for the remainder of the working day (by the TCM).

- 4.12.3 All hot works is carried out by trained personnel and is restricted to the designated Hot Works Bay surrounded on three sides by a fire wall constructed of Legato LG8 blocks.

4.13 INDUSTRIAL HEATERS

- 4.13.1 There are no industrial heaters installed at the facility.

4.14 FIRE WATCH

- 4.14.1 At the beginning and end of each working shift a Fire Watch is carried out by suitably trained staff. In addition to CCTV, visual inspections to detect any evidence of fire or hot spots is carried out. Results are recorded on the housekeeping and inspection log and assessed to see if any improved operational procedures can be invoked to reduce risks. Fire watch reviews are also undertaken out of hours to check for post operational heating issues and procedures are reviewed after assessment.
- 4.14.2 All waste storage areas and the external yard area on Site are subject to the Fire Watch checks. Inspections, carried out at a minimum of 30 minutes after plant, machinery and vehicles have been switched off, also check for dust build up or fluff settled onto hot exhausts and engines on plant. Should there be any dust, fluff or debris deposited thereof or at any location across the yard, it will be removed via the use of housekeeping equipment such as brushes, cloths, sponges and cleaning products where appropriate and transferred to a dedicated bin, container or the quarantine area as applicable.

5 MANAGEMENT AND STORAGE OF WASTE

5.1 WASTE ACCEPTANCE PROCEDURES

- 5.1.1 All vehicles delivering wastes to the Site stop at the weighbridge to be weighed. Weighbridge staff are suitably trained and follow documented procedures. The weighbridge operator examines waste descriptions at the weighbridge and the information is checked against the six figure European Waste Catalogue Code(s) and other details on the Waste Transfer Note or Season Ticket as well as against the waste types permitted by the Environmental Permit.
- 5.1.2 The facility benefits from the integration of the FRED software system in the weighbridge office which enables the monitoring of the weights of waste feedstock to ensure the Site does not exceed the amounts stipulated in the permit. The system also has ID Capture to allow compliance with the Scrap Metal Dealers Act of 2013 to enable safe storage and renewal reminders. EWC reports can also be generated either by the postcode, region or individual product of the source of the waste.
- 5.1.3 In view of the nature of the waste streams accepted at the Site, it is not anticipated that there will be seasonal variations in demand or supply. As a consequence of 'zero landfill' and the avoidance to dispose of waste to landfills coupled with the promotion of re-use and recycle, the need for recycling facilities such as SL Recycling has increased of late, and it is considered that the resilience of the supply chain and end users is viable in foreseeable market conditions.
- 5.1.4 A banksman instructs the drivers to reverse into the appropriate bay within the waste transfer station

enclosure or to the wood waste area, appropriate scrap metal, vehicle storage, depollution and dismantling area, as appropriate, for off-loading according to the type of waste being delivered to ensure materials are stored and processed separately. This helps to ensure the cleanliness of recyclable materials is maintained and materials are correctly stored and handled.

5.1.5 A visual inspection of the contents of all waste loads, including those received in enclosed skips, are made during deposit.

5.1.6 Any discrepancies found as a result of the checks detailed above results in the vehicle being detained whilst some, or all, of the following supplementary management decisions are taken:

- Referral to a Technically Competent Person (TCP) on site;
- Referral to the waste producer to confirm the nature of the waste load;
- Referral to the waste carrier's base;
- Referral to National Resources Wales;
- Redirection of delivery vehicle off Site, to a suitably authorised facility; and
- If the waste has been discharged on the floor of the building or external storage area, removal of the waste to the secure quarantine area, prior to off-Site removal either to the waste producer or suitably authorised facility.

5.1.7 Any wastes discovered to be a hot load or have the potential to be a hot load are identified and removed from the Site as a matter of urgency, or temporarily stored in the designated quarantine area.

5.1.1 In the quarantine area, wastes are kept segregated from other wastes which are or are likely to be incompatible. Quarantined wastes (including any inadvertently received powdery or excessively dusty wastes) are stored in a sealed and lidded container and removed from the Site as a priority incident and within 24 hours, subject to an authorised facility being able to accept them within this timescale. Such wastes will be dampened down using a hose prior to being transferred to quarantine or handling in any way so that dust emissions during handling are minimised.

5.1.2 Wastes are not accepted if for any reason there is insufficient storage capacity available or if the Site is inadequately manned. This is to ensure that all waste is managed effectively to prevent pollution or loss of amenity.

5.2 IDENTIFICATION OF POTENTIAL SOURCES OF FIRE

5.2.1 In constructing robust risk-based management protocols for the Site, it is recognised that there are a number of potential sources of fire associated with the waste transfer station, wood storage and treatment and scrap metal, vehicle storage, depollution and dismantling facility from:

- Vehicles and plant delivering and processing wastes to/at the facility; and
- Waste storage, bulking up, storage and dispatch.

5.2.2 These matters are addressed further in the relevant sections below.

5.3 WASTE FEEDSTOCK INVENTORY AND SOURCE MATERIALS

- 5.3.1 With due regard to the potential for waste feedstock material to be an inherent fire risk, key waste streams received at the facility are detailed in Appendix 1. Assessment of the associated fire potential under 'normal' operational conditions is provided.

5.4 WASTE TRANSFER STATION ENCLOSURE

- 5.4.1 The waste transfer station enclosure measures 20m x 20m and comprises of walls to either side constructed of Legato L8 blocks and a canopy roof for processing general waste. The maximum storage is two weeks which also includes the processing time, pre and post storage. For mixed material brought to the Site there is the capability for up to 60 tonnes/day to be processed with up to 40 tonnes/day to be disposed as waste at an appropriate authorised site.
- 5.4.2 Waste delivery vehicles are directed to reverse into the building. Waste loads are tipped onto the floor and bulked up within the confines of the building using a loading shovel or similar by a suitably trained Site operative. Wastes are stored in the enclosure prior to sorting and separation into different components for recovery and up to a maximum of 40 tonnes/day of residual waste for disposal at an appropriately authorised site. All waste deposit, separation, bulking up, storage and loading for off-Site removal or transfer to wood storage pile takes place within the enclosure.
- 5.4.3 Only metals, wood and cardboard are separated from the general wastes. These waste streams are added directly to the stockpiles for the waste type proactively throughout the day. They are not stored in the general waste building. All residual wastes are stored in this building away from unsorted material and are taken off site every 2-3 days.
- 5.4.4 The walls of the enclosure are 5m high and all material stored inside do not exceed this height therefore giving a freeboard of 1m to the top of the canopy. The enclosure is isolated from other stockpiles on-Site with the closest being the depolluted vehicle shells at 17m.
- 5.4.5 Within the enclosure is 1 stockpile of unprocessed material and 1 stockpile of residual to be removed. There is a gap of 8m to be maintained between the processed and unprocessed material allowing for full access along 2 sides of each stockpile.
- 5.4.6 The cardboard is stored away from all other wastes in a smaller building (identified on the site plan). The maximum stockpile size is 10m x 6m x 4m and this allows for a separation gap of approximately 7m surrounding the pile. This pile will also benefit from a 3-sided bay of Legato blocks for added protection to the building.

5.5 SCRAP METAL, VEHICLE STORAGE, DEPOLLUTION AND DISMANTLING AREA

- 5.5.1 The attached site plan shows the layout of the Site. External bays are used for scrap metal storage, vehicle dismantling and depollution, depolluted car storage, inert, plastics and wood storage. Bay walls comprise fireproof LG8 Legato blocks.
- 5.5.2 All externally stored wastes, including the unpolluted cars, depollution and dismantling area, wood storage area and scrap metal storage area comprises impermeable pavement with sealed drainage system to petrol/oil interceptor.
- 5.5.3 Lead acid batteries, e.g. removed from cars during depollution, are stored in a sealed container with

an acid resistant base and cover to prevent ingress of rainwater (stored inside a building).

5.5.4 Metal filings and turnings are stored in a separate enclosed skip with impermeable base and cover to prevent ingress of rainwater.

5.5.5 Vehicle dismantling and depollution activities involves:

- The End of Life Vehicles are received via the weighbridge, where they are inspected for quality and contamination prior to transferal to designated depollution bays within the Site.
- These bays are fitted with interceptor drainage systems to eliminate the possibility of ground contamination. The motor vehicles are manually depolluted. Batteries, if present, are removed first as a part of on-Site procedures.

5.5.6 Metal recycling involves the sorting, separation, grading, shearing, shredding, compacting, granulating of cables and cutting (using only hand-held equipment) of ferrous metals or alloys and non-ferrous metals for recovery. Storage and recovery of waste motor vehicles also take place on Site in a designated bay with treatment comprising of dismantling and depollution only.

5.5.1 Metal wastes and ELV's remain on-Site for no longer than 3 weeks which includes storage, processing and treatment. The height of the storage bays are 5m and stockpiles do not exceed 4m. A line 1m below the top of the bay walls is marked clearly to ensure stockpile heights do not exceed it in-order to prevent fire spreading over the walls. To prevent any fires overlapping the side walls of the bay into adjacent waste stacks, a line clearly painted inside the bay along the floor is positioned 1m from the front to ensure waste piles are not stored beyond this line.

5.5.2 The un-depolluted vehicles are stored in rows that are 2 cars deep and 3 cars high. The space where the ELVs are stored clearly allows entry to both sides of the stockpile for ease of access to remove vehicles if required and for fire-fighting purposes.

5.5.3 Baled metal wastes (post depollution ELV processing) are stored in a separate bay as shown on the site plan. The stack sizes and storage duration are detailed above as maximums and are stored with the following control measures.

- Stacks will be monitored visually as part of the fire watch undertaken 3 times per day.
- Signs of heating will be noted and TCM informed immediately.
- If stored for over 6 months (extremely unlikely), the bales will be split open, checked for internal temperature, loose material turned, re-baled.
- Thermal imaging cameras will be used to monitor the temperature of the bales daily. A thermal probe cannot be used due to the composition of the bales (metal), the probe would not be able to penetrate the compact nature of the bale.
- The bales will be turned if they are stored on site for periods longer than 2 weeks. This will involve pulling all bales out of the storage area and re-stacking them with the inner bales now to be stored around the edges.
- Bales will not be stored more than 4 high at any time.
- Interlacing of stacked bales isn't considered as required due to the nature of the material baled (not

plastic/rubber etc). Metal wastes are less likely to combust and so the chimney effect is therefore also far less likely to occur. However, if space allows for it, interlacing will be undertaken as best practice.

- 5.5.4 The waste bays are separated by fireproof walls constructed with `Legato LG8 blocks. These pertain to A1 fire-resistant classification in accordance with REI 240 standards rendering the Legato blocks fire-resistant for up to at least 4 hours (full specification attached). They have been installed in accordance with the manufacturer's recommendations.

5.6 WOOD WASTE FOR RECOVERY

- 5.6.1 Waste wood storage sorting and separation activities involves:

- The wood waste material are received via the weighbridge, where it is inspected for quality and contamination prior to transferal to the designated external secured bay within the Site adjacent to the metal recycling bays.
- These bays are fitted with impermeable pavement with sealed drainage system to petrol/oil interceptor to eliminate the possibility of ground contamination and the bay walls comprise of LG8 Legato fireproof blocks

- 5.6.2 The maximum storage of waste is 2 weeks with sorting and separation taking place within the first seven days. With the dimensions 10m x 5m x 4m, the bays have the capability for up to 30 tonnes/day to be processed with up to 15 tonnes/day to be disposed as waste at an appropriate authorised site.

- 5.6.3 Waste delivery vehicles are directed to reverse into the wood waste bay where waste loads are tipped onto the floor and bulked up within the confines of the bay wall constructed with Legato LG8 blocks using a loading shovel or similar by a suitably trained Site operative. Wastes are stored in the bay prior to sorting and separation into different components for recovery or disposal at an authorised site as appropriate.

- 5.6.4 The height of the storage bays are 5m and stockpiles do not exceed 4m. A line 1 m below the top of the bay walls is marked clearly to ensure stockpile heights do not exceed 4m in order to prevent fire spreading over the walls. This also ensures no wastes within the stockpiles exceed the height of the bay walls thus avoids bridging. A line is also clearly marked on the floor across the length of each bay at 1m distance from the front wall to enable any flames or fires spreading to adjacent bays. The waste bays are separated by fireproof walls constructed with Legato LG8 blocks. These pertain to A1 fire-resistant classification in accordance with REI 240 standards rendering the Legato blocks fire-resistant for up to at least 4 hours.

6 FIRE DETECTION AND FIRE FIGHTING

6.1 FIRE DETECTION

- 6.1.1 Waste materials stored throughout the Site are routinely inspected at regular intervals three times a day at the beginning, middle and end of the operating hours. They are all visually inspected and the temperature is monitored on the thermal imaging cctv.

- 6.1.2 Any evidence of a hot spot (reference should be made to paragraphs above (section 4) for details of how hot spots are identified and how inspections of all the stockpiles on-Site are conducted), triggers an assessment of the most appropriate action which may be the pulling apart of the stack to dissipate

heat by the on-Site material handler, the transferal of material to the quarantine area or the application of cooling water.

- 6.1.3 Portable fire extinguishers are available at the Site and staff are trained in their use. Records of training testing and maintenance of fire extinguishers are kept in the Site's office. Fire extinguishers meet the requirements of BS 5036.

7 PROVISION AND MANAGEMENT OF FIREWATER

- 7.1.1 A firewater storage tank connected to the local water supply is provided and designed in accordance with the requirements of BS5306. The water supply and tank is insulated to prevent cold weather freezing. The capacity of the water storage tank is 665m³. There are also three water bowsers on-Site with a capacity of 1.125 m³ that are refilled after use as a Site procedure and checked on a daily basis during inspections to ensure they contain water at the combined maximum capacity of 3.375 m³ at all times.
- 7.1.2 At maximum pile size of 1,600m³ based on the largest stockpile in the site with the dimensions of 20m x 20m and a height of 4m and, applying the Guidance rate of 2m³ /min for a minimum of 3hrs, a 1600m³ pile of waste would require 1,908m³ of water. An on-Site water storage tank with a volume of 665m³ would be supplemented by water from the on-Site lagoon which has a perimeter of 77.4m and the capacity to store 450m³ of water (1,115m³).
- 7.1.3 Combined with the other sources available (fire hydrant, local watercourse, water re-circulation), this is deemed as being adequate. A cover is to be placed over the lagoon to prevent evaporation in dry, hot conditions. During dry conditions and if the lagoon drops by approximately ¼ of capacity (to 337.5m³), the lagoon will be manually topped-up from the on-Site hydrant to ensure there is a constant and adequate supply of firewater. The level in the lagoon will be visually checked by the TCM weekly to ensure that the levels within it are sufficiently high to aid firefighting efforts if required.
- 7.1.4 The Operator has purchased a fire engine for the Site to enhance the firefighting potential at the facility.
- 7.1.5 There is additionally a fire hydrant adjacent to the quarantine area and proximal to the entrance to the Site. This is shown on the site plan. The utilisation of this fire hydrant has been confirmed by Blackwood Fire, a specialist fire protection service and by the South Wales Fire and Rescue Service. It is important to note that the Fire Service are no longer permitted to test the flow rates of fire hydrants due to the discolouration it causes and the potential to taint water supplies. As such, the exact details regarding the flow rate of the hydrant is unavailable although typically, the average flow rate of fire hydrants in the UK is 8 litres/sec equating to 28m³/min or 86m³ over the course of 3 hours.
- 7.1.6 It is considered that the fire service would be able to attend an incident in significantly less time than 3 hours (the closest Fire Station is located c.2.5m north of the Site) and that upon arrival there would be a readily accessible supply of water available for use from the on-Site fire hydrant the Site drainage lagoon, recirculated firefighting waters and the adjacent Afon Lywd.
- 7.1.7 All surface run-off from the external yard area currently discharges via an interceptor to the on-Site lagoon. To assist in the containment of fire water and to prevent it discharging to sewer, drainage mats will be installed in the drains on-site as well as those immediately adjacent to the perimeter.

These are stored in the office and in the pre-existing building. Firewater would then be potentially available for reuse by the fire service or would be removed by tanker and transferred to an appropriately licensed wastewater treatment facility.

- 7.1.8 In the event that storage of firefighting water was required on Site, the impermeable bunded area at the rear of the Site with drain mats blocking the run-off creates a storage area of 125m x 80 m x min 0.1m depth giving a capacity to retain up to 1000m³ which is in excess of the amount required to extinguish the worst-case fire. This could be stored prior to controlled release into the lagoon for further firefighting or for appropriate controlled removal from the Site.
- 7.1.9 The waste transfer station enclosure has a watertight floor and the enclosure is surrounded by a kerbed area which directs retained firewater into the Site drainage system. Fire-fighting water in the enclosure overflows onto the yard which is kerbed. When the kerbed area has filled, this area overflows and, by gravity, drains from the building into the Site surface drainage system to a lagoon, via the interceptor. Firewater is then potentially available for reuse by the fire service, or removed by tanker and transferred to an appropriately licensed wastewater treatment facility.
- 7.1.10 The wood storage pile is surrounded by Legato LG8 fireproof retaining walls to the rear and the sides. Fire water in this area is retained by kerbing which when full overflows to the Site drainage system draining to the lagoon.
- 7.1.11 The vehicle dismantling and de-pollution area is surrounded by a kerbed area and Legato LG8 fire walls which separate it from the wood storage area and the metal storage and processing area. Fire water in this area also overflows to the Site drainage system draining to the lagoon.
- 7.1.12 The metal storage and processing area is surrounded by Legato LG8 firewalls and kerbed area separating it from the external boundary, the vehicle dismantling area and hot work bay area. Fire water in this section overflows to the Site drainage system draining to the lagoon.
- 7.1.13 The Hot Works Bay is surrounded to the rear and sides by firewalls constructed with Legato LG8 blocks. Firewater drains to the site drainage system and pass to the lagoon storage. The entire surface of the Site is concreted therefore there are no permeable areas for the ingress of firewater.
- 7.1.14 The sprinkler system that feeds plant on site is mains fed, other water suppression systems are fed via the lagoon.

8 FIRE INCIDENT PROCEDURE-EMERGENCY PLAN

- 8.1.1 Staff operatives who will be engaging in firefighting activities and those who operate the plant complete a Fire Marshall training course conducted by a third-party safety management company, XYZ Training Group who are affiliated with the National Training Card Scheme.
- 8.1.2 Plant that would be utilised in the event of a fire are all fitted out with fire and heat protected hydraulic systems, fire extinguishers and an enclosed cab. Those to be deployed are as follows:
- A front end loader;
 - A dump truck;

- A fire engine;
- A 360° material handler; and,
- Water Bowsers x 3

8.1.3 The Site's internal access road is designed as a one-way system and provides straightforward and rapid access to all areas of the Site for the plant that will be designated to assist in fire-fighting or fire prevention.

8.1.4 Should there be any unburnt material in or adjacent to the fire, plant machinery will be used to separate and load into the truck for transferal to a safe section of the site. Operators on-Site who have trained as Fire Marshalls will douse any unburned stockpiles, material or hazards in the vicinity of the fire with water supplied from one of the water bowsers or the hose pipe to prevent the fire from spreading.

8.1.5 Emergency procedures for the Site has been developed and is the subject of training and exercising for all staff engaged at the Site. The Plan sets out the following key points:

- Fire actions and reporting procedures;
- Emergency Procedures including communication and evacuation;
- Identification of off-Site fire assembly point;
- Circumstances under which trained staff may be involved in actions to separate affected waste;
- Diversion of incoming materials to one of the two nearest waste facilities located 665m to the north (Biffa) and 151m to the south-east of the Site (Recycled Solutions);
- Recovery including appropriate removal of burned waste to an authorised facility and the tankering of any residual firewater by a licensed waste transfer operator to an appropriately permitted wastewater treatment facility;
- Should the plant and machinery on-Site prove to be insufficient for the removal of burnt waste, additional plant will be sourced from the Operators sister site in Hengoed;
- A copy of the Fire Emergency Plan is retained at the Site office.

8.1.6 Key actions to be undertaken in the event of discovering a fire are detailed in Table 3 below. Key Actions on discovering a fire

Box 1 - Action on discovering a fire
<ul style="list-style-type: none"> • Fire service to be informed immediately of the location of the fire and the waste types involved; • All personnel must follow Emergency Fire Plan; • Neighbouring businesses, residents and sensitive receptors identified within Section 3.5 will be informed via telephone (note that there is a contact list held in the Site office that is updated regularly); • Fire extinguishers and water hoses must only be used by trained fire marshals and when it is safe and appropriate to do so (i.e only whilst under the supervision of the fire and rescue service); • Once the Site is cleared of burnt material and firewater (see bullet point 6 above in section 8.1.1), the yard area will be washed down before replacing or repairing damaged equipment and/or

infrastructure as necessary.

- Electrical checks and the re-evaluation of contingency plans will also be carried out prior to the Site becoming operational again.

9 REVIEWING AND MONITORING THE FPMP

9.1 REVIEWING

- 9.1.1 This FPMP is a live working document which is reviewed quarterly or more frequently to reflect any changes to the facility such as the acceptance of additional waste streams (specifically those that are combustible), the modification of infrastructure, the inclusion of additional infrastructure or buildings, the installation of additional plant, machinery or equipment, following a fire incident and/or increasing or decreasing waste volumes.
- 9.1.2 All staff are made aware of the contents and the location of this FPMP during inductions and following a review. It is kept in the Site office and is accessible to all staff, visitors and contractors.

9.2 TRAINING, MONITORING SITE AND SITE INSPECTIONS

- 9.2.1 All Site supervisors, of which at least one will be on Site at any one time, will undertake a Fire Safety Training course for Fire Marshalls with XYZ Training Group who are affiliated with the National Training Card Scheme.
- 9.2.2 Fire Marshalls will induct new starters and conduct quarterly refresher courses for all staff to include on-Site drills and exercises. This is to ensure all staff are competent to carry out the measures and procedures outlined within this FPMP.
- 9.2.3 Records of training, exercise drills and refresher course will be kept in a designated folder and maintained in the office on-Site.
- 9.2.4 Site inspections are carried out at the start and the end of the working day as well as after lunchtime. This will include the visual inspection of all of the stockpiles for hot spots and the recording of the temperatures (where appropriate) on the appropriate logging sheet which is retained in the Site office. This allows for the identification of any signs or patterns of a constant temperature increase in a particular waste stack.
- 9.2.5 During the Site inspections, all equipment and plant are checked to ensure they are either operating or turned off correctly and that there are no identifiable ignition sources. All plant, equipment and fire prevention and mitigation equipment are maintained and serviced as per manufacturers recommendations and by qualified personnel as appropriate. Records of all inspections and servicing are maintained in a designated folder which is kept in the Site office.
- 9.2.6 Each month an external environmental consultancy will attend site and review compliance across the site. This will not only form part of general permit compliance but will focus specifically on FPMP compliance, any non-compliance noted will be logged and a report sent to the site TCM detailing corrective actions.

9.2.7 The review of site FPMP procedures (particularly the end of day check), undertaken by the site supervisor or TCM, will maintain a compliance log in the office of the following information:

- Stockpile sizes and separation distances.
- Temperature checks for stacks.
- Maintain residence times by checking when the bays were last emptied (photographs taken at each point of emptying).
- At the required intervals (daily, weekly, monthly), the relevant checks and reviews are undertaken, and actions implemented where required.
- Periodic testing of relevant equipment will be done at this point when required (fire extinguishers are annual etc).

APPENDIX 1 WASTE FEEDSTOCK INVENTORY AND SOURCE MATERIALS

Waste Acceptance for Household, Commercial and Industrial Waste Transfer Station with Treatment.

Waste Code	Description	Fire risk posed
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 10	waste metal	Low
10	Wastes from thermal processes	
10 12	Wastes from manufacture of ceramic goods, bricks, tiles and construction products	
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)	Low
10 13	Wastes from manufacture of cement, lime and plaster and articles and products made from them	
10 13 14	Waste concrete only	Low
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	Low
12 01 03	non-ferrous metal filings and turnings	Low
12 01 17	waste blasting material other than those mentioned in 12 01 16	Low
15	Waste packaging	
15 01	Packaging (including separately collected municipal packaging waste)	
15 01 01	paper and cardboard packaging	Med
15 01 02	Plastic packaging	Med
15 01 03	Wooden packaging	Med
15 01 04	Metallic packaging	Low
15 01 05	Composite packaging	Low
15 01 06	Mixed packaging	Med
15 01 07	Glass packaging - Clean glass only	Low
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	Med
16 02	wastes from electrical and electronic equipment	

Waste Code	Description	Fire risk posed
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	Low
16 03	off-specification batches and unused products	
16 03 04	inorganic wastes other than those mentioned in 16 03 03	Low
16 03 06	organic wastes other than those mentioned in 16 03 05	Low
16 06	batteries and accumulators	
16 06 05	other batteries and accumulators	Med
17	Construction and demolition wastes (including excavated soil from contaminated sites)	
17 01	Concrete, bricks, tiles and ceramics	
17 01 01	concrete	Low
17 01 02	Bricks	Low
17 01 03	Tiles and ceramics	Low
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	Low
17 02	Wood, glass and plastic	
17 02 01	Wood	Med
17 02 02	Clean glass only	Low
17 02 03	Plastic	Med
17 04	metals (including their alloys)	
17 04 01	Copper, bronze, brass	Low
17 04 02	Aluminium	Low
17 04 03	Lead	Low
17 04 04	Zinc	Low
17 04 05	Iron and steel	Low
17 04 06	Tin	Low
17 04 07	Mixed metals	Low
17 04 11	Cables other than those mentioned in 17 04 10	Low
17 08	Gypsum based construction material	
17 08 02	Gypsum only other than that mentioned in 17 08 01	Low
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	Low
19	Wastes from waste management facilities, off-site waste water treatment plants and preparation of water intended for human consumption/industrial use	
19 01	wastes from incineration or pyrolysis of waste	
19 01 02	ferrous materials removed from bottom ash	Low
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	

Waste Code	Description	Fire risk posed
19 12 01	Paper and cardboard	Med
19 12 02	Ferrous metal	Low
19 12 03	Non-ferrous metal	Low
19 12 04	Plastic and rubber	Med
19 12 05	Glass	Low
19 12 07	Wood other than that mentioned in 19 12 06	Med
19 12 08	Textiles	Med
20	Municipal wastes (household waste and similar commercial, industrial)	
20 01	Separately collected fractions	
20 01 01	Paper and cardboard	Med
20 01 02	Clean glass only	Low
20 01 10	Clothes	Med
20 01 11	Textiles	Med
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	Low
20 01 38	wood other than that mentioned in 20 01 37	Med
20 01 39	Plastics	Med
20 01 40	Metals	Low
20 03	Other municipal wastes	
20 03 01	Mixed municipal waste	Med
20 03 07	Bulky waste	Med

Waste Acceptance for Metal Recycling, Vehicle Storage, Depollution and Dismantling (authorised treatment) Facility.

Waste Code	Description	Fire risk posed
01	Waste resulting from exploration, mining, quarrying and physical and chemical treatment of minerals	
01 01	<i>Wastes from mineral excavation</i>	
01 01 01	<i>wastes from mineral metalliferous excavation</i>	Low
01 01 02	<i>wastes from mineral non-metalliferous excavation</i>	Low
01 03	<i>wastes from physical and chemical processing of metalliferous minerals</i>	
01 03 06	<i>tailings other than those mentioned in 01 03 04 and 01 03 05</i>	Low
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	
02 01	<i>wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing</i>	

Waste Code	Description	Fire risk posed
02 01 10	waste metal	Low
10	Wastes from thermal processes	
10 02	Wastes from the iron and steel industry	
10 02 01	Wastes from the processing of slag	Low
10 02 02	Unprocessed slag	Low
10 02 08	Solid wastes from gas treatment other than those mentioned in 10 02 07	Low
10 02 10	Mill scales	Low
10 03	Wastes from aluminium thermal metallurgy	
10 03 02	Anode scraps	Low
10 03 05	Waste alumina	Low
10 03 16	Skimmings other than those mentioned in 10 03 15	Low
10 03 18	Carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17	Low
10 10	wastes from casting of non-ferrous pieces	
10 10 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 10 05	Low
10 10 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 10 07	Low
11	Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro metallurgy	
11 02	wastes from non-ferrous hydrometallurgical processes	
11 02 03	wastes from the production of anodes for aqueous electrolytical processes	Low
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05	Low
11 05	wastes from hot galvanising processes	
11 05 01	hard zinc	Low
19 10	wastes from shredding of metal-containing wastes	
19 10 01	iron and steel waste	Low
19 10 02	non-ferrous waste	Low
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	
19 12 02	ferrous metal	Low
19 12 03	non-ferrous metal	Low
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 33*	lead batteries	Med
20 01 40	Metals	Low

Waste Acceptance for Treatment of Wood Waste for Recovery.

Waste Code	Description	Fire risk posed
15	Waste packaging	
15 01	Packaging (including separately collected municipal packaging waste)	
15 01 03	Wooden packaging	Med
17	Construction and demolition wastes (including excavated soil from contaminated sites)	
17 02	Wood, glass and plastic	
17 02 01	Wood	Med
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 (wood based)	Med
19	Wastes from waste management facilities, off-site waste water treatment plants and preparation of water intended for human consumption/industrial use	
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	
19 12 07	Wood other than that mentioned in 19 12 06	Med
20	Municipal wastes (household waste and similar commercial, industrial)	
20 01	Separately collected fractions	
20 01 38	wood other than that mentioned in 20 01 37	Med