

Client: Fiberight Limited
Address: Unit 1 Westfield Industrial Park, Waunarlwydd, Swansea, SA5 4SF



Fiberight Limited, Unit 1 Westfield Industrial Estate, Waunarlwydd, Swansea, SA5 4SF

Application for a Bespoke Environmental Permit

Environmental Management System (EMS)

Our Reference: Fiberight-Waunarlwydd-RP01-Final, Rev C (EMS)

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Waste And Industry Compliance Ltd

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Fiberight-Waunarlwydd-RP01-Final, Rev C (EMS)

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1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1 This Environmental Management System (EMS) has been prepared for a proposed non-hazardous waste recycling facility at Unit 1, Westfield Industrial Estate, Waunarlwydd, Swansea (the Site).
- 1.1.2 Fiberight Limited (***the Operator***) will operate the facility to treat a range of non-hazardous wastes for recovery and recycling. Using state of the art Hydracyle™ technology (developed by the Operator), coupled with a range of integrated innovative material purification technologies, the plant is designed to achieve high rates of recycling, typically 70% or greater. It can also recycle many non-hazardous wastes that are typically either landfilled or incinerated, thereby moving these materials up the waste hierarchy and making a significant contribution to recycling targets. The Site will have an annual waste throughput of up to 60,000 tonnes. Hazardous wastes will not be accepted at the Site.
- 1.1.3 An application for a bespoke Environmental Permit was submitted to NRW on 12 August 2022. Comments were received from NRW on 19 January 2023, which confirmed the requirement to update the EMS to include details on operational hours and site closure arrangements and additional details on waste storage, site drainage, impact of potential pollution, accidents and incidents, complaints procedures and emissions.
- 1.1.4 Following NRW's comments, the Operator has confirmed that:
- I. There will be no external storage of wastes outside of the building. All wastes will be received, tipped, stored and processed inside the building, which is fully enclosed and fitted with a roller shutter vehicular access door.
 - II. The quarantine area for use in the event of a fire will remain external to the building, as shown on Drawing 'Site Location and Layout'. It will comprise a suitably sized, kerbed concrete pad and kept clear of materials at all times, except for emergency use during a fire incident (e.g. to move fire affected waste into (i.e. to ensure that it is fully extinguished) or for the receipt of unburnt waste for isolation and to prevent it catching fire.
 - III. The list of proposed wastes has been significantly reduced and there is no requirement to accept refuse derived fuel (RDR), solid recovered fuel (SRF), wood waste or mixed municipal wastes. As a result the proposed maximum annual waste throughput at the Site has been reduced and will now be 60,000 tonnes per annum.
 - IV. All waste streams are accepted for the purpose of recycling and recovery. No wastes are received for the specific reason of treating them for disposal. The waste recovery process does produce a small residual mixed fraction that will be mechanically dried for off-site supply as a RDF or SRF. However, the total quantity produced will be 20 tonnes per day on average, with a maximum capacity of 25 tonnes per day.
 - V. The Site will operate on a 24 hours x 7 days basis. There will be no waste deliveries or recycle collections between the hours of 7.00pm and 7.00am. During this time period, the doors to the building will be kept closed, including the roller shutter vehicular access door (except in the event of an emergency, such as a fire) and all activities will take place inside.

The building will be staffed throughout the operational period.

- 1.1.5 By dispensing with any requirement to store wastes outside the building and significantly reducing the list of proposed wastes to be accepted at the Site (including RDF, SRF and mixed municipal wastes), the risk of fugitive emissions to the environment, e.g. noise, dust and odour is reduced.
- 1.1.6 This revised EMS is submitted in support of a bespoke permit application for the Site and includes details of how the Site will be managed to minimise the risks of pollution from operations, maintenance, accidents, incidents and any non-conformances.
- 1.1.7 The building is an enclosed brick and metal sheeting clad construction, with impermeable concrete base. All waste treatment processes will be located within the building. The proposed Environmental Permit boundary is shown on Drawing No 'Westfield-Waunarlwydd-DW01', see Appendix 1.
- 1.1.8 The Site has been designed to meet the requirements of Natural Resources Wales (NRW) 'Fire Prevention and Mitigation Plan (FPMP) Guidance (version 2, August 2017). A detailed FPMP has been prepared for the Site (Ref: Fibright-Waunarlwydd-RP04, Rev C (FPMP)) and is submitted in support of the permit application.
- 1.1.9 Any fuels or oils stored on Site will be kept in dedicated containers located within the building or in suitable tanks. Any tanks used for the storage of potentially polluting liquids will be either double skinned or located in an impermeable bunded area, with a capacity of at least 110% of the largest tank's contents.
- 1.1.10 No substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) Regulations will be used at the Site for the operation of the facility.

1.2 THE SITE

- 1.2.1 The Site is located within Westfield Industrial Estate, Waunarlwydd, which comprises a large industrial complex to the west of Swansea. The Site formed part of the former Alcoa aluminium works from circa 1978 to its closure in 2007.
- 1.2.2 The Site building was formerly occupied and used by Alcoa for aluminium processing. The building's impermeable concrete base is generally in good condition, although some improvements have been made by the Operator.
- 1.2.3 The Site is predominantly surrounded by industrial buildings that were historically used for the manufacture of aluminium products. It is accessed from Titanium Road to the east and internal industrial estate roads. A Gatehouse and security barriers are located at the entrance to the industrial estate from Titanium Road.
- 1.2.4 The nearest residential properties to the Site are located to the east on Titanium Road, circa 330m east of the Site, and south and southeast in Waunarlwydd, i.e. on Bridge Road (circa 385m distant), Meadow Croft Close (circa 470m) and on Roseland Road to the east (circa 465m).
- 1.2.5 Nearby neighbouring businesses on Westfield Industrial Estate include:
 - Hill Group (a manufacturing and installation company specialising in insulation, trace heating, electrical install and glass reinforced plastic), circa 50m to the southwest of the Site:

- Real Alloy (an aluminium recycling facility), circa 190m to the west;
- Cymru Coaches Ltd, circa 30m to the south;
- Timet UK Ltd (a titanium products manufacturing company), circa 45m to the north.

1.2.6 There are no Special Protection Areas (SPAs), Special Areas of Conservation (SACs), RAMSAR sites, Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNR) or Marine Conservation Zones within 3km of the Site.

1.2.7 Cwmllywd Wood Local Nature Reserve (LNR) is circa 1.4km south southeast of the Site.

1.2.8 NRW has identified six Sites of Importance for Nature Conservation (SINCs) within a 1km radius of the Site:

- Main Swansea - Fishguard railway line, circa 410m south of the Site at the closest point;
- Penyfodau Fawr to Llewth, circa 590m northwest of the Site;
- Mynydd Bach-Y-Glo), circa 475m southeast of the Site;
- Alcoa Wet Meadows, circa 330m west of the Site;
- Duvant Brickworks, circa 665m south southeast of the Site;
- Gowerton Mart Woods, circa 325m west of the Site.

1.2.9 There are pockets of ancient woodland in the vicinity of the Site. The nearest is circa 400m northwest of the Site, with further pockets to the north (circa 495m) and northwest (circa 450m) along the course of the Afon Lian.

1.2.10 The nearest AONBs and National Parks to the Site are the Gower AONB (circa 3.5km southwest) and the Brecon Beacons National Park (circa 23km to the northeast). Therefore, these receptors are not considered further in this OMP as the potential for significant odour impact from the Site at this distance is very low.

1.2.11 Sensitive receptors are shown on Drawing 'Receptor Location Plan'.

1.3 OPERATIONAL HOURS

1.3.1 It is proposed to operate the Site on a 24 hours, 7 days basis.

1.3.2 Waste processing operations will take place throughout this period. However, between the hours of 7.00pm and 7.00am there will be no waste deliveries or collections of recycled products. The doors to the building will remain closed throughout and all activities will be internal to the building. The processing plant is not inherently noisy and the enclosed fabric of the building will provide noise attenuation. Between the hours of 7.00am and 7.00pm, the vehicular access roller shutter door will be kept closed other than when vehicles are entering and exiting the building.

1.4 METEOROLOGICAL CONDITIONS

1.4.1 Meteorological Office predictions and recordings of local weather data

([https://www.metoffice.gov.uk/weather/forecast/gcjj40vj#?nearestTo=Waunarlwydd%20\(Swansea\)&date=2023-02-10](https://www.metoffice.gov.uk/weather/forecast/gcjj40vj#?nearestTo=Waunarlwydd%20(Swansea)&date=2023-02-10)) will be reviewed by the Health and Safety Manager to allow forward planning and information gathering on the direction that smoke would travel from the Site in the event of a fire incident. Daily observations of weather conditions, including wind speed, direction and temperature, will be made so that Site operations can be rearranged to adapt to changing conditions where necessary.

2 WASTE ACCEPTANCE

2.1 WASTE TYPES AND QUANTITIES

- 2.1.1 The maximum waste throughput at the Site will be 60,000 tonnes per annum. Up to 400 tonnes will be stored on Site at any one time. The Site operates on a first in first out basis to ensure that wastes are received, processed and dispatched typically within 4days.
- 2.1.2 Proposed permitted wastes are listed in Table 1 below.

Table 1 Permitted Wastes

ECW Code	Description
02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 04	Waste plastics
03 03	Wastes from pulp, paper and cardboard production and processing
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
15 01	Packaging (including separately collected municipal packaging waste)
15 01 01	Paper and cardboard packaging
15 01 02	Plastic packaging
15 01 06	Mixed packaging
19 12	Wastes from the mechanical treatment of wastes (e.g. sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	Paper and cardboard
19 12 04	Plastic and rubber
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in in 19 12 11 (limited to dry recyclables only)
20 01	Separately collected fractions (except 15 01)
20 01 01	Paper and cardboard
20 01 39	Plastics

2.2 WASTE ACCEPTANCE PROCEDURES

- 2.2.1 Waste pre-acceptance procedures will ensure that only compliant waste types are accepted. Customers delivering waste to the Site will be required to provide the Operator, in advance, with all necessary information/documentation to satisfy the requirements of the Duty of Care and the Waste (England and Wales) Regulations 2011 (see below). The requirements for waste producers to provide pre-acceptance documentation that includes identification of any potential risks to the environment, including from potentially odorous wastes or wastes infected with vermin, flies or other insects, will help to identify

any potential loads that should be rejected from the Site prior to delivery.

- 2.2.2 The Operator will check pre-acceptance documentation from suppliers and waste testing results to ensure that only permitted waste streams are approved for delivery to the Site. Non-permitted wastes, including inherently odorous or infested wastes or other unsuitable materials, will not be accepted. Pre-acceptance documentation will record:
- The waste description;
 - The European Waste Classification (EWC) code;
 - The source and nature of the waste, including its physical form;
 - Any special handling measures;
 - Any potential risks to process safety, occupational safety and the environment (e.g. from odour or pests);
 - Details of the waste producer (name, address and contact details);
 - Where the waste holder is not the producer, details of the waste holder (name, address and contact details);
 - Information on the nature and variability of the waste production process and the waste;
 - Age of the waste;
 - Type of packaging;
 - An estimate of the quantity to be received in each load and in a year.
- 2.2.3 Checks will also be made to establish whether the haulier is a Registered Waste Carrier or has a valid exemption from registration. Only registered carriers or those who are lawfully exempt from registration will be permitted to use the Site.
- 2.2.4 Waste will not be 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.
- 2.2.5 Site staff will be suitably trained and will follow documented procedures. The Operator will examine the waste descriptions of incoming waste loads and the information will be checked against the previously supplied pre-acceptance documentation, six figure European Waste Catalogue Code(s) and other details on the Waste Transfer Note or season ticket (as appropriate) and against the waste types permitted by the Environmental Permit.
- 2.2.6 Every delivery of waste will be recorded, detailing the date of the transaction, weight, waste type, registered carrier, Waste Transfer Note number, vehicle registration and other pertinent information against a unique reference number. It will allow for tracking of wastes, the generation of reports and waste returns, as well as providing comprehensive, auditable information.
- 2.2.7 The contents of the waste load will be inspected upon receipt where possible, i.e. prior to tipping in the building. In the event that a load is non-permitted or unsuitable for receipt at the Site, e.g. if it is highly

odorous or infested with vermin and insects etc, it will not be allowed to unload and will be rejected. A record of the non-permitted load will be made.

- 2.2.8 A banksman will instruct the drivers of acceptable waste loads to the appropriate part of the Site for off-loading to ensure wastes are stored and processed correctly. This will help to ensure the cleanliness of recyclable materials is maintained and that wastes are processed on a first in first out basis.
- 2.2.9 A further visual inspection of the contents of all waste loads, including those received in sheeted containers and enclosed trailers, will be made during deposit and when bales are split before processing. In the event that any inadvertently non-permitted or unsuitable wastes have been deposited, including odorous or infested loads, the contents will either be reloaded back onto the delivery vehicle where possible or if it has already left the Site will be loaded into a fully sealed, enclosed and lidded skip or container for isolation and quarantine. The quarantined wastes will be prioritised for rapid removal off-Site to an authorised facility, i.e. within 24 hours of receipt.
- 2.2.10 Any discrepancies found as a result of the checks detailed above will result 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 NRW;
 - Redirection of delivery vehicle off site, to a suitably authorised facility; and
 - If the waste has been discharged on the floor of a bay, removal of the waste to a secure quarantine skip or container, prior to off-site removal either to the waste producer or suitably authorised facility.

2.3 NON-CONFORMING WASTE

- 2.3.1 Any loads arriving at the Site which contain non-permitted wastes or a significant amount of contrary material shall be rejected prior to unloading. In the unlikely event that a vehicle inadvertently deposits non-permitted waste or a large amount of contrary material, it will be re-loaded where possible. Where the vehicle has already left the Site, the non-permitted waste or contrary material will be stored in a quarantine skip or container at the Site, pending removal of the material to the waste producer or authorised facility. Any waste materials dispatched off site to an authorised facility, will be removed in accordance with the Duty of Care. A Registered Waste Carrier will be used.
- 2.3.2 Material rejected from the Site shall be issued with a record stating why, when and from which contract the waste was provided. This record shall be held on Site for NRW to inspect. In addition, the 'Record of Non-Conformance', Appendix 3, shall be completed and the record will be held on Site.
- 2.3.3 Small amounts of contrary material present in loads shall be removed by hand or machine and temporarily stored in the quarantine skip or area. Material in quarantine shall be removed from Site to a suitably permitted facility, capable of dealing with the waste types.

2.4 WASTE TESTING

- 2.4.1 Samples will be taken of pulp (produced in the pulping plant) and washer rejects. These samples will be subject to chemical analysis by a laboratory for the following:
- Pulp - Total Moisture, Ash Content, Volatile Matter, Fixed Carbon, Total Sulphur, Chlorine, Calorific Value, Fluorine, Biomass Content by CV, Cadmium, Zinc, Vanadium, Lead, Copper, Chromium, Nickel, Antimony, Cobalt, Manganese, Arsenic, Mercury and Tin;
 - Washer Rejects - Wood (%), Ferrous Metals (%), Non-Ferrous Metals (%), Dense Plastic (%), Plastic Film (%), Glass (%), Textile Content (%), Paper and Cardboard (%), Misc. Materials (Combustible) (%), Miscellaneous (Non-Combustible) (%), Food Content (%), Garden Waste (%).
- 2.4.2 Sampling records and laboratory results will be maintained by the Operator for a minimum of 4 years.

3 WASTE STORAGE

- 3.1.1 Wastes accepted at the Site (after passing waste pre-acceptance and acceptance procedures) are stored in dedicated fireproof concrete bays pending input to the waste recovery plant.
- 3.1.2 Three waste reception bays will be constructed inside the building. Each bay will be 10m wide, 9.5m deep and 4m high. They will each comprise a fireproof concrete push wall and two fireproof concrete sidewalls (the fire resistance specification of the concrete will be a minimum of 120 minutes). Wastes will be stored to a maximum height of 3m in each bay, thereby maintaining a 1m high headroom above the waste. Bales will be stacked so that the maximum waste storage volume in any individual bay will be $10\text{m} \times 9.5\text{m} \times 3\text{m} = 285\text{m}^3$, see Drawing 'Site Location and Layout'. It is not possible to construct an individual bay for each waste code.
- 3.1.3 One waste reception bay will be used for the receipt of baled wastes and the other for unbaled materials. The third bay will be used for rotation purposes so that whilst one bay is being emptied for processing, the third bay can be used for receipt of incoming materials. In this way each bay will be emptied completely every 48 hours, although this may increase to 4 days during weekends and bank holidays. Once empty the bay will be thoroughly swept, including the corners, to ensure all wastes and debris are removed and the potential for wastes and dusts to accumulate over time is prevented.
- 3.1.4 Up to five product storage bays will be constructed on site. Each product storage bay will be 6.5m wide, 7m deep and 4m high. Product will be stored to a maximum height of 3m in a bay to maintain a 1m high headroom above the material to the top of the bay. Product storage is detailed in Section 4.6.
- 3.1.5 Waste delivery vehicles will reverse into the building through roller shutter doors located at the western end of the structure. Unbaled materials will be tipped on to the concrete floor of the building from where they will be transferred by grab into a waste reception bay prior to being fed into the processing plant. Baled wastes will be off-loaded and transferred to the appropriate storage bay or directly into the processing plant. The bales will be broken prior to processing.
- 3.1.6 The bays will be emptied in series so that materials are processed on a first in first out basis (i.e. bays containing the longest deposited materials will be emptied first).
- 3.1.7 The Health and Safety Manager or, in his absence, the Site Manager or other Technically Competent

Person will inspect waste storage as part of the daily checks to ensure materials are being suitable stored within the confines of the bays (i.e. the waste is not located beyond the front of the bay and the 1m high headroom is being maintained).

4 WASTE TREATMENT

4.1 WASTE INFEEED

- 4.1.1 The grab will transfer the wastes from the storage bays into the feed hopper of the drum pulping unit. Water is added to the pulper on a closed loop system (see below) to aid the sorting and separation of materials. Materials are passed through screens (typically set between 50mm and 80mm, depending on operational requirements) to separate a <50mm to 80mm fraction and a >50mm to 80mm fraction.

4.2 <50MM/80MM FRACTION

- 4.2.1 The small fraction (i.e. <50mm to 80mm) discharges into a biomass hopper from where materials are conveyed to washing tunnels, which comprise various modules. Water is used to saturate the <50mm to 80mm pulp fraction to further assist separation and recovery. Other modules are used to wash out any organic waste contamination and clean the pulp and plastics to an acceptable quality. Further modules are then used to recover excess washing water from the pulp for recirculation and reuse and to clean and separate the plastic. The washing tunnels thereby produce a clean organic pulp fraction, a clean plastic fraction and a rejects fraction. All three fractions are conveyed to the post wash for further processing.
- 4.2.2 In the post wash, the organic pulp fraction is passed through a screw press to remove excess moisture and conveyed for loading into lorries for supply to customers as a recycled pulp raw material. The clean plastic fraction is further processed in the plant (see below). The rejects fraction is conveyed to a screw press to remove excess water and then to a reversible conveyor, where remaining plastic film can be separated for washing and recovery. The remaining reject material is removed from the Site as waste to authorised facilities.

4.3 50 /80 MM TO 250MM FRACTION

- 4.3.1 The ≥50mm/80mm fraction is passed through a coarse screen (typically 250mm), to separate materials from oversize wastes such as plastic film. The smaller fraction (typically ≥50mm/80mm to 250mm) is conveyed to an air classifier, where lighter materials are separated from the heavier fraction. Lighter fraction materials such as plastic film are separated for onward washing. The heavier fraction is conveyed to a picking station where rigid plastics are manually separated for washing and bailing, whilst remaining materials are conveyed to an overband magnet and eddy current separator for ferrous and non-ferrous metal recovery. Both ferrous and non-ferrous are separately baled prior to removal from the Site. Remaining materials are passed to a shredder, a screw press (to remove excess moisture) and cyclone to facilitate separation and onward processing.

4.4 OVERSIZE FRACTION

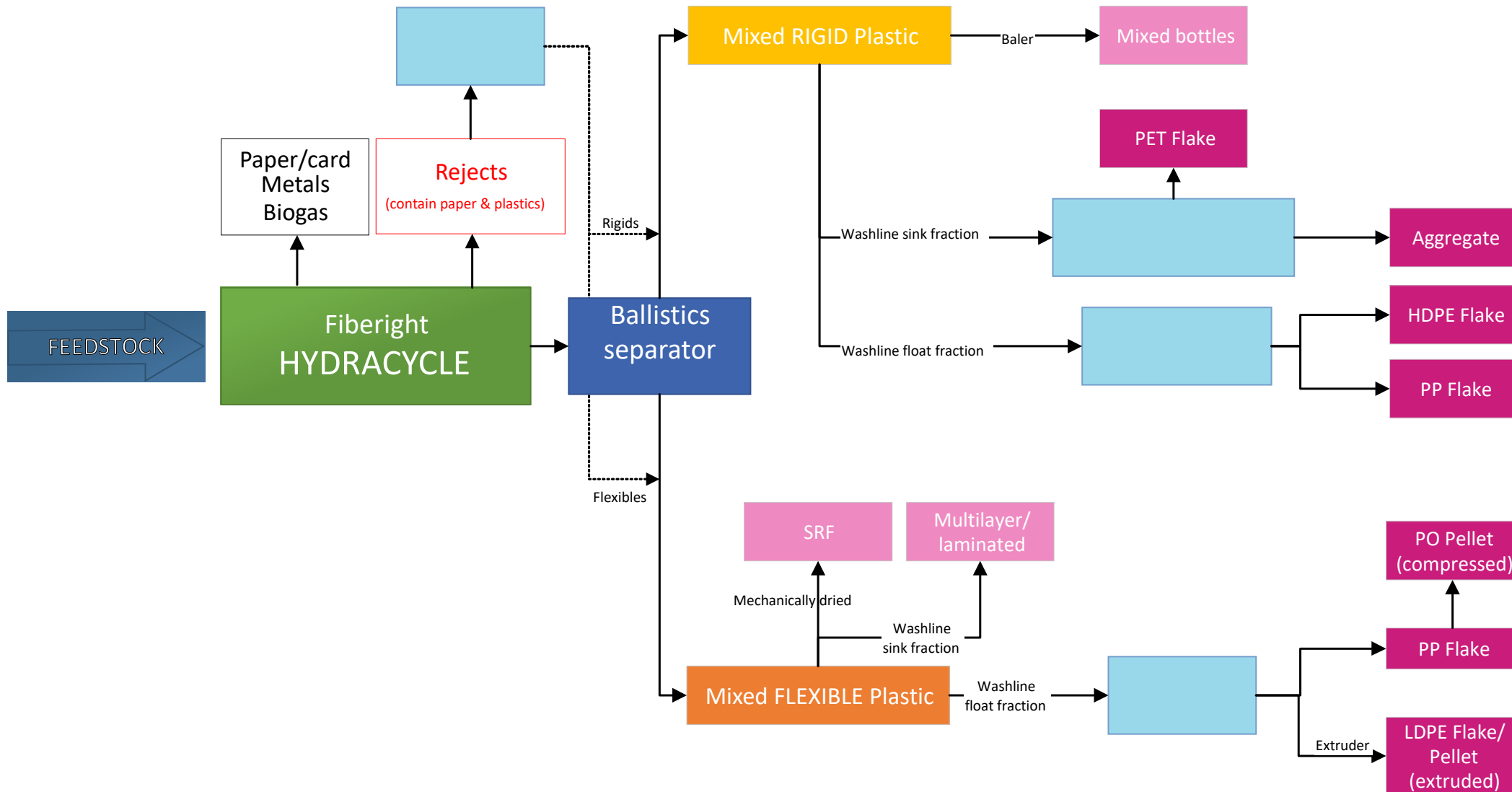
- 4.4.1 The oversize fraction (typically >250mm) is shredded and conveyed to a to a cyclone to separate plastic film from other materials that can be further processed and recovered. Plastic film is washed and passed

to a screw press (to remove excess wash water) to facilitate its' recovery.

4.5 PLASTICS SEPARATION AND RECOVERY

- 4.5.1 Plastics removed at the pulping and initial sorting stages are further processed to separate them into different polymer types.
- 4.5.2 Materials are fed to ballistic separators, which separate mixed rigid plastics and mixed flexible plastic.
- 4.5.3 Mixed rigid plastics are processed using a series of proprietary technologies, which first separate the Polyethylene Terephthalate (PET) and then produce concentrated Polypropylene (PP) and Polyethylene (PE) streams that are suitable for direct supply to plastic product manufacturers. By separating plastics into their various polymer types, recycling and recovery rates are enhanced, including materials such as plastic film that were previously difficult or impossible to recycle.
- 4.5.4 Mixed flexible plastics are also separated into specific factions including Polypropylene (PP), Low Density Polyethylene (LDPE) and multi-layered laminate. The small, residual fraction will be mechanically dried and added to the small residual fraction from the pulp recovery to produce a Solid Recovered Fuel (SRF), for export off site. The total quantity produced will be 20 tonnes per day on average, with a maximum capacity of 25 tonnes per day.
- 4.5.5 The tonnage of SRF produced each day will be recorded as part of the production process to ensure the maximum 25 tonnes per day limit is not exceeded. The basis for these tonnages have been calculated based on work undertaken on a Small Scale Demonstration Plant. The maximum residue that was generated in a day was 15% of the input. Based on the current projected throughput of the plant of 130 tonnes per day, this equates to 20 tonnes per day of residual fraction to be dried and supplied as a RDF or SRF. The maximum annual throughput at the Site will be 60,000 tonnes or 164 tonnes per day, which equates to a maximum 25 tonnes per day of residual fraction for supply as a SRF.
- 4.5.6 The amount of residue generated is monitored and reported on a daily basis to the management team, a procedure is in place to highlight if the amount of residue being generated is in excess of the internal daily limit of 25 tonnes, which would trigger an investigation to identify and rectify any faults that are causing the increase in the residue.
- 4.5.7 The separation technologies used at the Site will enable very high rates of recycling to be achieved, typically 70% or greater, and allow a wide range of materials to be recovered, including plastic film and rigid plastics. A process flow diagram is shown in Figure 1 below.

Figure 1 Process Flow Diagram



4.6 PRODUCT STORAGE

- 4.6.1 Up to five product storage bays will be constructed, each 6.5m wide, 7m deep and 4m high. Product will be stored to a maximum height of 3m in a bay to maintain a 1m high headroom above the material to the top of the bay (see Drawing 'Site Location and Layout').
- 4.6.2 To maintain operational flexibility, it is likely that different products will be stored in an individual bay at certain times throughout the life of the Site, as customer demands will not always be fixed (e.g. the demand for one product may increase, whilst another decreases). However, the storage limits in each bay specified above will be maintained at all times. At this stage it is anticipated that separated ferrous metals, separated non-ferrous metals, polyethylene terephthalate (PET) products, polypropylene products (pp), polyethylene and SRF will be the main products stored on Site.
- 4.6.3 As part of the daily checks, the Health and Safety Manager will ensure products are being suitable stored within the confines of the bays (i.e. materials are not located beyond the front of the bay and the 1m high headroom is being maintained).

4.7 WATER RECIRCULATION

- 4.7.1 The use of water in the pulping plant and washing tunnels etc operates on a closed loop system whereby it is cleaned and recirculated for reuse on Site. There is no requirement to discharge process water to the foul sewer. In the event that the water recirculation plant is offline for servicing or repair etc, wastewater would be tankered off site to an authorised wastewater treatment works. The recirculation and reuse of process water on site will minimise mains water consumption.
- 4.7.2 Used process waters will be pumped to a buffer tank with paddle mixer before onward pumped transfer to a lamella clarifier for separation and removal of solids. Process water enters from the top of the lamella vessel and flows down a feed channel underneath a series of inclined plates. Water then flows up inside the clarifier between the inclined plates. During this time solids settle onto the plates and eventually fall to the bottom of the vessel. Solids and sludge collect at the bottom of the vessel from where they are pumped to a filter press for separation of residual water. Filter cake will be used for animal bedding or removed to an authorised facility such as an anaerobic digester plant.
- 4.7.3 Cleaned and separated water from the lamella clarifier is pumped to the drum pulper and washing tunnels for reuse, as required. Residual water removed by the filter press is pumped to a storage tank for reuse in the processing plant.

5 SITE DRAINAGE

- 5.1.1 The building incorporates an engineered concrete base and sealed system.
- 5.1.2 A CCTV drainage survey of the Site was undertaken in January 2022 by P & H Utilities Limited. The CCTV drainage survey confirmed surface water and foul water drainage in the vicinity of the Site. The drainage system is shown on Drawing No 21456-SK-801-0.
- 5.1.3 There is no internal drainage within the building to surface water drain.
- 5.1.4 Fire Prevention and Mitigation Plan measures include the construction of a 100mm 'sleeping policeman' type bund across vehicular and pedestrian access doors to retain firewater within the building in the

event of a fire incident. The internal building dimensions are a minimum of 145m x 28m. Therefore the 100mm (0.1m) high 'sleeping policeman' bunds across entry and exit points creates a 'reservoir' of 406m³ (145m x 28m x 0.1m), which is sufficient to contain any inadvertent escape of liquid from the drum pulper or firewater in the event of a fire incident.

- 5.1.5 An engineered quarantine area will be constructed on the external yard area to the west of the building, see Drawing 'Site Location and Layout'. It will comprise a suitably sized, kerbed concrete pad and kept clear of materials at all times, except for emergency use during a fire incident (e.g. to move fire affected waste into (i.e. to ensure that it is fully extinguished) or for the receipt of unburnt waste for isolation and to prevent it catching fire, see Fiberight-Waunarlwydd-RP04-Final, Rev C (FPMP). In the event of a fire incident, any liquids that collect in the kerbed area will be tankered off site to an authorised wastewater treatment works. When the quarantine area is empty and clean, which will be either always or the vast majority of the time, only rainwater will collect in the kerbed area. This will be pumped to foul sewer in accordance with the Trade Effluent Discharge Consent.
- 5.1.6 Foul water from the Site's portable welfare facilities is pumped out and removed by a contractor to an authorised wastewater treatment facility.

6 SITE RECORDS

- 6.1.1 The Site records will be maintained and kept secure from loss, damage and deterioration in either the Site office or at a secure location off-site.
- 6.1.2 Records including waste delivery dates, waste types, quantities, sources/facility and Registered Waste Carrier details of all waste entering and leaving the Site will be recorded on the 'General Waste Management', Appendix 4 and Waste Returns will be produced in a timely manner.
- 6.1.3 Other records include:
- Weekly site inspections by the Health and Safety Manager;
 - Monthly Pest Control Reports, prepared by the pest control contractor;
 - Completed Complaint Reporting forms (including mitigation measures);
 - Environmental accidents and incidents;
 - Non Conformance Register;
 - Maintenance records;
 - Environmental monitoring records;
 - Training records.
- 6.1.4 A copy of the Environmental Permit will be easily accessible by staff members or contractors. Contractors will be briefed on the sensitivity of the Site.

7 MAINTENANCE

- 7.1.1 All equipment and infrastructure on Site will be inspected, serviced and maintained as per manufacturer

guidance and 'Preventative Maintenance Checklist', refer to Appendix 6.

- 7.1.2 NRW will be informed without delay if there is any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution and cause any significant adverse environmental and health effects.
- 7.1.3 Any required maintenance will be carried out as soon as is practicable to ensure continued running of the Site and be recorded on the 'Maintenance Record', refer to Appendix 7.
- 7.1.4 Daily visual inspections for litter and mud accumulating on Site or beyond the Site boundary will be undertaken. More thorough weekly inspections will be carried out and recorded on the 'Inspection Record', Appendix 8. The weekly inspections include a review of:
- Site access road;
 - Concrete pad (both within the building and the external quarantine area);
 - Fireproof bay walls;
 - Waste and product storage areas, height within each bay and compliance with 1m high freeboard above the waste, front face of materials within the confined of the bay;
 - General site cleanliness and sweeping of storage bays (including corners) and other operational areas;
 - Plant and equipment;
 - Site drainage;
 - Fire prevention and control system;
 - Litter;
 - Odour;
 - Dust;
 - Mud / dirt;
 - Pests, vermin, insects and scavenging birds;
 - Security.

8 ENVIRONMENTAL ACCIDENTS AND INCIDENTS

- 8.1.1 In the event of an environmental accident on Site the 'Environmental Accident and Incident Record', refer to Appendix 9, will be completed.
- 8.1.2 The Site Manager has overall responsibility for the prevention of environmental accidents and incidents at the Site. All staff have individual responsibility for ensuring that their actions do not cause environmental accidents and for reporting any incidents that they become aware of in the Environmental Accident and Incident Record as a priority matter. Accidents must be reported to the Health and Safety Manager or, in his absence, the Site Manager or other Technically Competent

Manager, who will coordinate response measures to ensure the safety of staff, visitors and local people is not compromised and that the environment and local amenity is protected.

- 8.1.3 A detailed environmental aspects register is in place at the Site, which addresses all potential accident scenarios. It includes control measures to prevent or minimise the risk of the accident occurring, which is the primary objective of the register. The Health and Safety Manager is responsible for implementation of the environmental aspects register and each employee is responsible for understanding and following the procedures contained therein. Staff training is provided (see Section 9).
- 8.1.4 Emergency response measures are in place in the event that an environmental accident does occur. The Health and Safety Manager has overall responsibility for implementation of the emergency response measures that will be used to protect people and the environment in the event of an environmental accident or incident.
- 8.1.5 Emergency response measures includes:
- Potential emergency situations;
 - Training of emergency response staff;
 - Post-emergency activities;
 - Personnel roles, lines of authority, training and communication;
 - Emergency recognition and prevention;
 - Safe distance and places of refuge;
 - Evacuation routes and procedures;
 - Emergency medical treatment and first aid;
 - Emergency alerting and response procedures;
 - Personal protective equipment and emergency equipment;
 - Preventing the escape of potentially polluting substances to the foul sewer, adjoining land or atmosphere.
- 8.1.6 The emergency response procedures are planned and periodically tested (at least once per year). The results are reported in an annual management review.
- 8.1.7 Any diesel, oils or other potentially polluting liquids used on Site will be stored in suitable, sealed containers located within the building (which is fully sealed). In the event that dedicated tanks are used, they will either be self-bunded or surrounded by impermeable bunds (base and side walls) with a minimum capacity of 110% of the tank's contents. Where more than one tank is located in a bund, the capacity of the bund will be 110% of the largest tank or 25% of the total storage capacity, whichever is the greater. Bund bases and sides will be impermeable. Vents, sight glasses and pipework etc will be located within the bunded area. Tanks and bunds subject to regular weekly inspection by the Health and Safety Manager.

- 8.1.8 Refuelling and emergency spillage procedures are detailed in Appendix 2 of this EMS. Absorbent material is kept on site and is used to treat any spillage that may arise. Used absorbent and any contaminated materials etc will be removed and stored in a sealed container, prior to authorised disposal.
- 8.1.9 All processing plant and equipment, including pumps and pipework, are subject to regular visual inspection for any leaks. Maintenance is undertaken in accordance with the manufacturer's specification to ensure efficient and safe performance.
- 8.1.10 The waste processing plant will be controlled by an automated process control system. Plant equipment status conditions, waste flows, temperatures, waste levels and pressures will be presented on a Human Machine interface (HMI) display for operator information. Control, feedback and monitoring signals from around the plant will be recorded on the process control system. Safety procedures are incorporated into the design of software so that fault conditions will generate an alarm and the most appropriate safe action taken. All emergency stop push-buttons and safety interlocks will be configured to operate in a fail safe manner and will be monitored through the process control system.
- 8.1.11 A detailed FPMP is in place at the Site, see Fibright-Waunarlwydd-RP04, Rev C (FPMP).
- 8.1.12 Emergency Fire Procedures comprise the following key points:
- Sound an alarm on detection of any fire or smoke;
 - Evacuation of buildings and site offices by staff and visitors;
 - Activation of water cannons to abate the fire;
 - For small fires and where it is safe to do so, suitably trained staff may use fire-fighting equipment such as appropriate fire extinguishers (powder or carbon dioxide) to tackle the incident;
 - For larger fires or fires that cannot be safely extinguished by trained site staff, call the fire brigade and any other required emergency service;
 - Evacuated staff must go to a designated off-site fire assembly point;
 - Diversion of incoming materials;
 - Recovery including appropriate removal of burned waste and any residual firewater;
 - Report incident to NRW.

Table 3 Key Actions on discovering a fire

Key actions on discovering a fire
<ul style="list-style-type: none"> • For large fires or any fire that cannot be safely tackled on site by trained site staff, the Fire Service to be informed immediately of the location of the fire and the waste types involved • All personnel must follow Emergency Fire Procedures • Fire extinguishers and water hoses must only be used by trained fire marshals and when it is safe and appropriate to do so. • Consider moving unburnt waste to Quarantine area if safe to do so—only trained staff to do this.

9 EMISSIONS

9.1 ENVIRONMENTAL RISK ASSESSMENT

- 9.1.1 An Environmental Risk Assessment has been prepared for the Site, based on the source pathway receptor principle to identify environmental risks from the Site and the mitigation measures in place to protect local people, residential properties, businesses, areas of amenity and designated habitat sites etc, see Fiberight-Waunarlwydd-RP03-Final, Rev B (EnvRA).

9.2 SURFACE WATER AND GROUNDWATER

- 9.2.1 All waste deposit, waste storage, waste processing, product storage and loading of recyclates for off-site supply to customers will take place in a fully sealed building with impermeable concrete basis. There are no drainage outlets to surface water drain or uncontained land. Therefore there are no pathways for pollutants to enter groundwater or surface water and no risk to the water environment.

9.3 DUST AND PARTICULATES

- 9.3.1 All wastes will be delivered to the Site in sheeted or enclosed lorries to minimise any fugitive emissions of dust during transfer to the Site. Similarly, products will be removed from Site in sheeted or enclosed lorries.
- 9.3.2 All wastes will be tipped, stored, bulked up and processed inside the building, which is fully enclosed and fitted with a vehicular access roller shutter door. The doors will be kept shut except during vehicle delivery, off-loading and exiting the Site, thereby minimising fugitive emissions to the external environment.
- 9.3.3 Waste storage bays will be emptied and thoroughly swept, including the corners, every 48 hours or up to 4 days during weekends and bank holidays to ensure all wastes and debris are removed and the potential for dusts to accumulate over time is minimised. Additional sweeping of operational areas will take place during the course of the day to ensure the facility is left clean and tidy.
- 9.3.4 All waste treatment processes will take place inside the building to control dust emissions. It is important to note that during the initial stages of waste treatment, water is added inside the drum pulper to aid sorting and separation. This means that the waste treatment process is predominantly in wet form, further reducing the potential for dust emissions.
- 9.3.5 Hose reels will be installed at the Site and used to dampen the site access road, entrance, waste stockpiles and other operational areas that have the potential to give rise to dust emissions, e.g. during hot and dry weather.
- 9.3.6 A Dust and Emissions Management Plan (DEMP) has been prepared for the Site and includes a risk assessment of fugitive emissions of dust to the environment and in depth details of the control and mitigation measures in place to prevent pollution or harm, see Fiberight-Waunarlwydd-RP05-Final, RevA (DEMP).

9.4 ODOUR

- 9.4.1 The tipping, storage and processing of wastes inside the building will minimise the risk of fugitive odour emissions to the external environment. The roller shutter doors will be kept shut except during vehicle delivery, off-loading and exiting the Site, thereby minimising the potential for odour escape to the external environment.
- 9.4.2 In addition wastes will be delivered in sheeted or enclosed lorries to prevent the emission of odour during transport to the Site.
- 9.4.3 Duration of waste storage times will be minimised and materials will be processed on a first in first out basis to ensure rapid turnaround times. As part of the first in first out policy, waste storage bays will be managed in series so that all waste reception bays are emptied and swept, including the corners, every 48 hours or 4 days during weekends and bank holidays.
- 9.4.4 An Odour Management Plan (OMP) has been prepared for the Site and includes an odour risk assessment and detailed control and mitigation measures to prevent odour causing nuisance or detriment to sensitive local receptors, see Fiberight-Waunarlwydd-RP08-Final (OMP).

9.5 MUD AND DEBRIS

- 9.5.1 Internal roads on the Westfield Industrial Estate comprise paved surfaces and the site access road and building floor are made of concrete. There is no requirement for lorries to drive over uncontained land at any time. Therefore the risk of mud and debris on the public highway is low.
- 9.5.2 As part of the daily inspection regime, the Site will be visually inspected for the presence of mud and debris. Any dirty areas that have the potential to give rise to mud or debris will be swept. In the unlikely event that the adjacent industrial estate roads become muddy due to activities on site, a road sweeper will be deployed on an as and when required basis.

9.6 LITTER

- 9.6.1 All wastes will be delivered in sheeted or enclosed lorries and tipped, stored and processed in a fully enclosed building. Therefore, the risk of litter escape from the Site is minimal.
- 9.6.2 In the event that litter escapes the Site, it will be collected and appropriately disposed of as a matter of urgency. Areas external to the Site will be kept clean and litter picked should this become necessary.

9.7 NOISE

- 9.7.1 The tipping, storage and processing of wastes entirely within a fully enclosed building will provide an acoustic barrier to minimise noise emissions. Vehicular access roller shutter doors will remain closed between 7.00pm and 7.00am and will only be open outside of these hours for access and exit by waste delivery and product collection vehicles. The nearest residential property is circa 330m to the east and is unlikely to experience noise emissions from the Site at this distance.
- 9.7.2 To further minimise noise, all vehicles, plant and machinery operated at the Site will be maintained in accordance with the manufacturer's specification. Preventative maintenance programmes will ensure appropriate lubrication, properly fitting covers, proper operation of bearing and fans and integrity of

silencers, thereby minimising the noise generated by site plant. Plant and vehicles will be switched off when not in use.

- 9.7.3 Staff will be made aware that they are close to neighbouring businesses and that unnecessary noise must be minimised.

9.8 PESTS

- 9.8.1 Pest control measures include:

- Refusing any waste loads where pre-acceptance documentation or visual inspection on arrival, shows them to be infested or likely infested with vermin, insects or other pests;
- Immediate quarantining of any infected loads that are inadvertently received at the Site, by placing them in a sealed, enclosed and lidded skip or container and arranging for their emergency treatment by the pest control contractor and removal off site to a suitably authorised facility;
- Ensuring wastes are processed on a first in first out basis and within 48 hours of receipt, although this may increase to 4 days during the weekend and bank holidays;
- Sweeping and disinfecting waste storage bays and processing areas (the regular emptying, sweeping and disinfecting of bays and the operational area within the building will ensure a high standard of cleanliness and prevent wastes accumulating over a significant period of time or becoming putrescible);
- Ensuring that waste does not accumulate in inaccessible areas such as behind push walls, pipe work or in corners;
- Daily and weekly site inspections by the Health and Safety Manager or during his absence the Site Manager;
- Monthly visits by a pest control contractor to monitor pest numbers and to apply rodenticides, insecticides etc, as required.

- 9.8.2 A Pest Management Plan (PMP) has been prepared for the Site and includes detailed control and mitigation measures to prevent pests causing nuisance or detriment to sensitive local receptors, see Fiberight-Waunarlwydd-RP07-Final (PMP).

9.9 VOLATILE ORGANIC COMPOUNDS

- 9.9.1 The Operator will not extrude plastics under the permit. Therefore, there is no potential to emit volatile organic compounds (VOCs) from waste activities at the Site.

10 SITE CLOSURE

10.1 BACKGROUND

- 10.1.1 When waste operations eventually cease at the Site, it will be closed and decommissioned in accordance

with a detailed Closure Plan to prevent pollution of the environment, harm to human health or serious detriment to local amenity. Best practice will be used to ensure that the amount of waste requiring disposal at the end of the Site's life is minimised and that infrastructure and plant is decommissioned safely and efficiently.

- 10.1.2 The building is fully enclosed and fitted with a roller shutter door, concrete base and sealed drainage. It is anticipated that the building, roller shutter door and concrete floor are likely to be suitable for alternative future commercial or industrial uses once waste operations cease and the Site is closed. However, should the Site surfaces require decommissioning, the construction materials will be recycled or recovered where practicable. Concrete fireproof bay walls can be crushed for reuse, whilst steel and other metal materials within the building cut up and recycled off-Site. It is not anticipated that waste operations will contaminate surrounding land or groundwater due to the concrete floor and sealed drainage within.
- 10.1.3 Any hydraulic oil, engine oil, gear box oil and waste oils etc will be stored in sealed containers located in the building or in sealed tanks located within impermeable bunds. Any containers or tanks used to store potentially polluting materials will be fit for purpose and located above ground. The capacity of any bunds will be 110% of the tank's contents. Should multiple tanks be used within a single bund, the bund will be designed so that its capacity will be a minimum of either 110% of the size of the largest tank or 25% of the total capacity of all the tanks within the bund, whichever is the greater. All containers and tanks will be safely removed off site and transferred to authorised facilities for reuse or recovery. Once tanks and bunds have been decommissioned, the area of concrete will be cleaned to remove any residues or staining (the building's concrete floor facilitates efficient cleaning).

10.2 CLOSURE PLAN

- 10.2.1 The Site will be closed and decommissioned in accordance with the Closure Plan to ensure that all works are fit for purpose, do not result in pollution or harm or serious detriment to local amenity and ensure that materials are managed in accordance with the waste hierarchy, i.e. the generation of waste will be prevented where possible or otherwise afforded the following priority: reuse at another site, recycling, recovery, disposal.
- 10.2.2 The Closure Plan will be updated during the life of the Site and prior to closure and decommissioning works commencing, to take into account legal requirements at the time and any advances in waste minimisation, recovery etc which may enable more materials to be managed higher up the waste hierarchy than currently envisaged. It will also take cognisance of any improvements in pollution prevention technology and include appropriate procedures for use to ensure that site closure and decommissioning do not cause pollution or harm.
- 10.2.3 It is anticipated that all wastes delivered to the Site will be suitably treated prior to site closure. Any wastes that cannot be processed at the Site will be removed in sheeted vehicles or enclosed trailers to an authorised facility in accordance with the relevant Waste Transfer Note procedure and Duty of Care.
- 10.2.4 The Closure Plan will identify the types and quantities of waste likely to be generated from site closure and decommissioning. Any properties associated with various wastes that require special handling procedures will be identified and measures put in place to ensure their correct management, for example:

- any hazardous materials must be correctly segregated and stored to prevent any incompatible reactions with other materials or risks to personnel;
 - provision of a water supply from a hose or bowser if potentially dusty materials arise.
- 10.2.5 Appropriate containers will be identified and brought to site to safely segregate and store any residual materials requiring removal.
- 10.2.6 Any raw materials such as hydraulic oil, engine oil etc will be stored in appropriate containers and removed off site for use elsewhere. Waste oils will be removed by Registered Waste Carrier to an authorised off-site facility in accordance with the Hazardous Waste Regulations and Consignment Note procedure prevalent at the time. Used tanks will be thoroughly emptied and cleaned and either reused at other sites or cut up for scrap metal recovery.
- 10.2.7 Once waste operations cease, site plant will be decommissioned. Any materials that cannot be viably recovered will be disposed of at authorised facilities.
- 10.2.8 Any concrete and brick waste that arises from demolition work will be crushed and supplied as a secondary aggregate or in accordance with a suitable WRAP / end of waste protocol prevalent at the time.
- 10.2.9 A bowser or hose will be used during decommissioning works to ensure that any potentially dusty materials are suitably damped down to minimise any particulate emissions. Site surfaces and roads will also be damped down to minimise emissions associated with lorry and mobile plant movements during the closure and decommissioning phases.
- 10.2.10 As the impermeable pavement is likely to remain in-situ there is no pathway for potential contamination of groundwater.
- 10.2.11 Suitable records will be maintained during the site closure and decommissioning phases. Records will relate to the types and quantities of wastes produced during decommissioning, Consignment Notes and Waste Transfer Notes relating materials removed off site, Registered Waste Carrier details of the hauliers used, details of the types and amounts of wastes reused, recycled, recovered and disposed of. Records will be made available for inspection to authorised officers of NRW.

11 TRAINING

- 11.1.1 Site staff will be trained and instructed in the procedures required to operate the Site and will be aware of the permitted waste types accepted at the Site as well as the requirements of the Environmental Permit, Fire Prevention and Mitigation Plan (FPMP) and EMS etc.
- 11.1.2 A record of all training will be kept on Site or at a suitable secure location off site, see Appendix 10. A staff training matrix will also be maintained, based on the requirements of Appendix 11.

12 SITE DIARY

- 12.1.1 A Site diary consisting of accurate and complete reporting and record keeping will be maintained at all times and will be made available for inspection by authorised officers of NRW when requested.

13 COMPLAINTS

13.1 PROCEDURES IN THE EVENT OF A COMPLAINT

13.1.1 Any complaints about the Site, e.g. from members of the public, local residents, neighbouring businesses, visitors, staff and regulatory bodies, including NRW, will be reported to the Site Manager and the Health and Safety Manager or other Technically Competent Person (with appropriate WAMITAB Certificate) who is responsible for the site management, e.g. in the absence of the Site Manager and Health and Safety Manager due to illness or annual leave etc.

13.1.2 The following actions will be taken on receipt of an external complaint:

- The responsible person receiving the complaint at the Site will immediately record the key details, initiating the investigation process. Details will be entered on the Complaint Report Form, see Appendix 5. The form sets out the key information that should be recorded at this time in order to facilitate further suitable investigation.
- The Site Manager, Health and Safety Manager or Technically Competent Person will be informed of the complaint as soon as possible, including the location, time and date of the complaint being lodged.

13.1.3 In recognising that some complaints can be transient and short-lived, timely notification of complaints directly from the complainant or NRW is imperative to allow for appropriate investigation. If the complaint occurs more than 12 hours before notification is provided to the Operator, it may not be possible to substantiate the complaint or pinpoint the cause. The Operator will, however, contact the complainant where possible, review any operations at the time which had the potential to cause the complaint and complete and record a comprehensive complaint investigation. For complaints received within 12 hours of the incident the following actions will be undertaken:

- The Site Manager, Health and Safety Manager or other Technically Competent Person will visit the complaint location as soon as possible, with the aim of undertaking monitoring within 2 hours if this is possible within the working day. The Site Manager, Health and Safety Manager or other Technically Competent Person will subjectively determine the presence or absence of the cause of the complaint. Opportunities to meet the complainant to discuss the matter directly will be pursued, wherever possible.
- If the cause of complaint is present, the key 'FIDOR' criteria will be assessed at the complaint location, as follows:
 - Frequency – is the cause of the complaint, intermittent or persistent; is there a history of complaints at this location?
 - Intensity – is the cause of complaint faint, moderate, strong, or very strong?
 - Duration – how long is the cause of complaint present at this location?
 - Offensiveness – provide a description of the cause of complaint; is it high, moderate, or low offensiveness?
 - Receptor sensitivity - is the cause of complaint present at a remote or highly sensitive location; is it localised or widespread?

- 13.1.4 The Site Manager, Health and Safety Manager or other Technically Competent Person will subsequently undertake the following further assessment process:
- Review of the operations at the Site prior to and at the time of the complaint;
 - Review of the environmental control systems prior to and at the time of the complaint;
 - Review of the previous complaint history at the location identified.
- 13.1.5 Where a significant complaint is substantiated by the Site Manager, Health and Safety Manager or other Technically Competent Person, the Operator will contact NRW to discuss the incident as soon as possible following receipt of the complaint details, allowing sufficient time for the above investigation to be completed, and within a maximum target response period of 24 hours from complaint receipt. If the necessary contact details are available and direct feedback has been requested the Operator will also contact the complainant directly to discuss the issue, the findings of the subsequent investigation, and any actions arising.
- 13.1.6 Once actions have been completed the Site Manager, Health and Safety Manager or other Technically Competent Person will visit the complaint location to ensure that the cause of complaint has subsided.

13.2 MITIGATION MEASURES

- 13.2.1 In the event of a substantiated complaint, the investigation undertaken by the Site Manager or Health and Safety Manager will incorporate detailed assessment of the site infrastructure and waste operations to determine any diversion away from 'normal' site operating conditions.
- 13.2.2 Key items for consideration will be as follows:
- Material inputs – change in waste type, volume, dust characteristics;
 - Mechanical breakdown – e.g. of processing plant or delays in waste handling;
 - Procedural failure (human error);
 - Short-term abnormal weather patterns – wind direction, temperature, inversions, etc;
 - Abnormal operating conditions – temporary highly dusty activities.
- 13.2.3 Upon identification of the likely cause, the appropriate corrective and preventative measures will be identified and implemented under the direction of the Site Manager or Health and Safety Manager. Additional support and technical expertise will be provided by internal / external technical specialists, as required.

13.3 TIMESCALES

- 13.3.1 In the event that it proves impracticable to carry out adequate remedial measures within one working day, the Site Manager or Health and Safety Manager will notify and agree with NRW the proposed actions and the timescales for their completion as a programme of works.

14 REVIEW AND AUDIT

- 14.1.1 The Operator maintains a Non Conformance Register, which includes a unique reference number for any non-conformance or complaints incidents, the date of the incident, who reported the incident, a description of the incident, who investigated the incident, what were the actions or outcomes of the investigation (including any mitigation measures) and whether the incident has been addressed and closed or is still ongoing.
- 14.1.2 The Non Conformance Register will be reviewed each month as part of the monthly management meetings. Any complaints about amenity issues such as dust, odour or pests will be discussed and actions suggested and agreed to ensure improvements are made and the likelihood of such incidents reduces going forward.
- 14.1.3 The Operator will undertake an annual audit of the EMS, the Non Conformance Register (including complaints history), environmental performance, objective and targets and future planned improvements. The purpose is to ensure the Site is:
- Continually improving;
 - Minimising the risk of pollution incidents and preventing any significant impacts to sensitive receptors, including detriment to local amenity;
 - Operated in accordance with the latest regulatory guidance;
 - Meeting environmental objectives independent of the Environmental Permit.
- 14.1.4 The findings of the annual audit and the Non Conformance Registrar etc will form part of the senior management annual meeting.

APPENDICES:

Appendix 1	Drawing No. 'Site Location and Layout'
Appendix 2	Refuelling and Emergency Spillage Procedure
Appendix 3	Record of non-conformance
Appendix 4	General Waste Management
Appendix 5	Complaints Record
Appendix 6	Preventative Maintenance Checklist
Appendix 7	Maintenance Record
Appendix 8	Inspection Record
Appendix 9	Environmental Accident and Incident Record
Appendix 10	Training Record
Appendix 11	Training Needs Checklist

APPENDIX 1:

Drawing No 'Westfield-Waunarlwydd-DW01'

APPENDIX 2:

Refuelling and Emergency Spillage Procedure

REFUELLING AND EMERGENCY SPILLAGE PROCEDURE

INTRODUCTION

Environmental Risk

Risk of environmental pollution incidents from the Site are considered to be suspended solids from the deposit and processing of wastes and fuel or oil in the event of a spillage from either a mobile fuel bowser, diesel or oil container or tank.

Mobile plant will be operated in accordance with manufacturers' guidelines and will be routinely inspected and maintained.

To reduce the risk of environmental pollution with regards to potential spillages of fuels the following Refuelling Procedure will be adhered to at all times. In the unlikely event that a fuel spillage does occur then the Emergency Spillage Procedure will be implemented.

REFUELLING PROCEDURE

Aim

To effectively control the risk of pollution that has the potential to arise from the delivery of fuel to mobile plant on Site.

Steps to be followed

The person carrying out re-fuelling must remain with the item of plant at all times observing the operation.

The fuel tank on the item of plant must be checked in order to determine the amount of fuel required.

The fuel nozzle is secured by lock. Before use the fuel nozzle, the hose must be checked for leaks or damage. If any are located, the Site Supervisor or Manager must be informed and they will arrange for remedial action.

The fuel nozzle must be kept upright between the fuel tank and mobile bowser to avoid any splashes / leaks.

Although an automatic cut-off is fitted to the fuel nozzle, do not rely on it totally to prevent any splashes.

Any spillages must be cleared up using absorbent material, following the Emergency Fuel Spillage Procedure below.

EMERGENCY SPILLAGE PROCEDURE

Aim

To ensure that any fuel spillages are contained within an area and cause minimal environmental impact.

Steps to be followed

Small scale Fuel Spill

A small fuel spill is one caused by things such as a splash or spill of fuel whilst filling an item of plant or machinery. The volumes involved are small and are confined to a small area.

If a small spill does occur the spill needs to be covered with absorbent granules from a spill kit.

The absorbent material should be allowed to cover the spill for a sufficient amount of time to allow it to soak up the fuel contamination.

Once the absorbent material has soaked up the spill it should be removed to a quarantine skip for non-conforming waste. From there the waste should be exported off Site to a facility permitted to accept the waste types and all relevant documentation should be maintained by the Operator.

Report to the Site Supervisor or Manager any materials that have been used and need replacing.

Large Fuel Spill

In the event of a major spillage of diesel, oil or lubricants, the essential action to be taken is to prevent the spillage migrating to a position / sensitive receptor where it could cause contamination.

This can be done by:

- Diverting the spillage away from such an area;
- Bunding the spill using pollution socks / sand / soil; and
- Placing absorbent materials on the spillage.

If the spillage is major, it is essential that instant action is taken, using the emergency spill-kits.

If possible, you should try to prevent any further spillage from the source e.g. by turning off the diesel pump, turning off a valve or blocking a hole in the fuel tank.

Protect any nearby drains by placing pollution socks or booms around them, using enough to totally enclose the entrances.

The spill should be reported as soon as reasonably possible to the Site Manager and NRW.

Use the absorbent mats to clear up the spillage and seek specialist advice from appropriate contractors.

Once the absorbent material has soaked up the spill it should be removed to the area of non-conforming waste. From there the waste should be exported off Site to a facility permitted to accept the waste types and all relevant documentation should be held on site.

Report to the Site Supervisor or Manager any materials that have been used and need replacing.

Consequences of not following procedures:

If a spill occurs and the following procedures are not followed, then the Site runs the risk of causing pollution to the surrounding land and water courses. This may result in action being taken against the Site Operator/Permit Holder.

Trade name	State	UN number	Location	Type of containment	Relevant health and environmental properties
Diesel	Liquid	1202	Transported via a mobile bowser, purpose designed container/drum	Mobile bowser / container / drum	<p>H226 - Flammable liquid and vapour.</p> <p>H304 - May be fatal if swallowed and enters airways.</p> <p>H315 - Causes skin irritation.</p> <p>H332 - Harmful if inhaled.</p> <p>H351 - Suspected of causing cancer.</p> <p>H373 - May cause damage to organs through prolonged or repeated exposure.</p> <p>H411 - Toxic to aquatic life with long lasting effects.</p> <p>R20 - Harmful by inhalation.</p> <p>R38 - Irritating to skin.</p> <p>R40 - Limited evidence of a carcinogenic effect.</p> <p>R51 - Toxic to aquatic organisms.</p> <p>R53 - May cause long-term adverse effects in the aquatic environment.</p> <p>R65 - Harmful: may cause lung damage if swallowed.</p> <p style="text-align: right;"><i>(EU, 1967)</i></p>

APPENDIX 3:

Record of non-conformance

Record of non-conformance	
<i>Date and time non-conformance identified</i>	
<i>What happened, what was it about?</i>	
<i>What caused it?</i>	
<i>What have you done to make sure that it does not happen again?</i>	
<i>Was there any significant pollution – for example oil entering a surface water drain?</i>	
<i>If there was then you must notify the NRW on 03708 506 506 (open 24hours/day)</i> <i>Have you done so?</i>	<i>Yes/No/not applicable</i> <i>Time:</i> <i>Date:</i> <i>NRW Incident number:</i>

Please print name and sign:

APPENDIX 4:

General Waste Management

[illegible]

General Waste Management – Waste Removed off Site							
Date	Destination (e.g. Doncaster)	EWC Code	Municipal Source? (Y/N)	State (solid, liquid)	Disposal or Recovery Code	Amount of waste (tonnes)	Comments

APPENDIX 5:

Complaints Record

Complaints Record	
Who made the complaint?	
Name:	
Address:	
Phone No:	
Date and time they made the complaint	
What caused it?	
Was anyone else aware of this? If so, who?	
What was the source of the problem, what went wrong? If source is unknown contact a suitably qualified person to investigate.	
What have you done to make sure it won't happen again?	
Was there any significant pollution – for example oil entering a surface water drain?	
If there was then you must notify the NRW on 03708 506 506 (open 24hours/day) Have you done so? You must also notify the NRW via email or letter.	Yes/No/not applicable Time: Date: NRW Incident number:
Please print name and sign:	

APPENDIX 6:

Preventative Maintenance Checklist

[illegible]

APPENDIX 7:

Maintenance Record

Maintenance Record		
Item*¹ :	Due*²:	
Completed on	Completed by	Comments
<i>e.g. 13/010/21</i>	<i>A. Person</i>	<i>Blockage in drainage system. Blockage removed.</i>
<i>*¹ Item e.g. inspect fences, inspect drainage system</i> <i>*² Due e.g. weekly, daily</i>		

APPENDIX 8:

Site Inspection Record

Site Inspection Record			
Date	Item	Inspected (yes/no)	Comments
	Site access road		
	Working areas		
	Drainage		
	Concrete pads		
	Fireproof waste storage bays and areas		
	Plant and equipment		
	Mobile plant (loading shovels etc)		
	Litter		
	Mud/dirt		
	Odour		
	Noise		
	Vermin and insects		
	Fire (fire-fighting equipment)		
	Security		

APPENDIX 9:

Environmental Accident and Incident Record

Environmental Accident and Incident Record	
<i>Date and time of the incident</i>	
<i>What happened, what was it about?</i>	
<i>Was anyone else aware of this – other witnesses? If so who?</i>	
<i>What caused it?</i>	
<i>What action did you take to fix the problem? Were external agencies involved?</i>	
<i>What have you done to make sure that it does not happen again?</i>	
<i>If there was then you must notify the NRW on 03708 506 506 (open 24hours/day)</i> <i>Have you done so?</i>	<i>Yes/No/not applicable</i> <i>Time:</i> <i>Date:</i> <i>NRW Incident number:</i>
<i>Please print name and sign:</i>	

APPENDIX 10:

Training Record

Training Record						
Employee Name				Job Title		
Training Required	Date Due	Date Done	Passed as competent? (yes/no)	Reviewers signature	Date of refresher	Comments

APPENDIX 11:

Training Needs Checklist

Training Needs Checklist																
Employee	Training Required*														Comments	
	Environmental Awareness						Maintenance / Operations				Accidents and Emergency					
	Permit role and responsibility, compliance with conditions	EMS, FRMP, Odour Management Plan, Dust and Emissions Management Plan,	Waste receipt including pre-acceptance and acceptance checks, Duty of Care	Waste storage and processing, compliance with maximum storage heights and waste	Product handling, storage and loading	Awareness of local sensitive receptors and complaints procedures etc	Maintenance of plant and equipment	Tanks, containers, bunds and pipework	Water cannons, fire extinguishers, fire hoses	Spill kits,	Fire	Spill response	Failure of Services	Dust and litter emissions, pests, mud on road etc	Odour emissions	

Training Needs Checklist																
Employee	Training Required*															Comments
	Environmental Awareness						Maintenance / Operations				Accidents and Emergency					
	Permit role and responsibility, compliance with conditions	EMS, FRMP, Odour Management Plan, Dust and Emissions Management Plan,	Waste receipt including pre-acceptance and acceptance checks, Duty of Care	Waste storage and processing, compliance with maximum storage heights and waste	Product handling, storage and loading	Awareness of local sensitive receptors and complaints procedures etc	Maintenance of plant and equipment	Tanks, containers, bunds and pipework	Water cannons, fire extinguishers, fire hoses	Spill kits,	Fire	Spill response	Failure of Services	Dust and litter emissions, pests, mud on road etc	Odour emissions	