

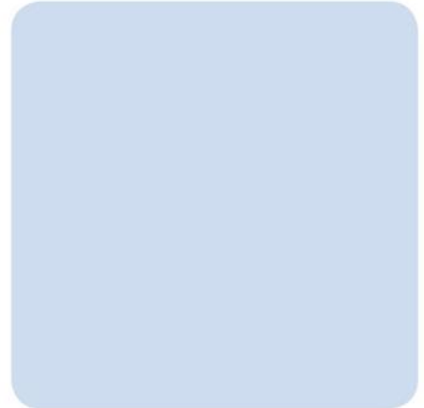


Environmental Permit Application

Operating Techniques and Monitoring Techniques Report

Materials Recycling Facility, Esperanto Way, Newport

Wastesavers Limited



Date: August 2015

Our Ref: JER6447

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Quality Management

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Amendment Record

Revision No.	Date	Reason for Change	Authors Initials

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1 Introduction

1.1 Application Overview

- 1.1.1 This document forms the application for a bespoke environmental permit for Wastesavers Limited (Wastesavers) Materials Recycling Facility (MRF) in Newport under the Environmental Permitting (England and Wales) Regulations 2010 (as amended) (EPR). The applicant and operator of the proposed facility is Wastesavers.
- 1.1.2 Wastesavers is proposing to expand the activities currently conducted on site under various exemptions, to allow for increased throughput of materials and expansion of permitted wastes. The MRF activity will be permitted as a recovery waste operation under the Waste Framework Directive for the recovery of waste, subject to the Materials Recycling Facility Code of Practice as implemented via the Environmental Permitting (England and Wales) Regulations 2014 (amended).
- 1.1.3 The proposed Materials Recycling Facility (MRF) at Esperanto Way currently operates under a number of exemptions. The proposal will see the facility operate as a waste operation, regulated by a Waste Operation Environmental Permit.
- 1.1.4 Recyclables are collected on a weekly basis, including food waste and cardboard, and then delivered to the existing depot. From 1st April 2016 cans and plastics will be mixed. Waste is then sorted, bulked and baled and finally stored prior to off-site transfer.
- 1.1.5 The current MRF operated on site will be expanded to increase storage space. This facility will continue to receive local authority public waste and commercial waste but will increase the throughput to meet legislative requirements for recycling. The list of permitted waste types will also be expanded, full details can be found in Part B4 application form. The proposed layout of the new site is shown in *Drawing JER6447-PER-004_D_150803*.

1.2 The Site and its Setting

- 1.2.1 The application site comprises the existing MRF at Esperanto Way, Newport, NP19 0RD and land adjacent (north eastern boundary) to this facility located approximately 1.8km from Newport city centre on the Orb Industrial Estate.
- 1.2.2 For identification purposes the application site is approximately centred at Ordnance Survey grid reference ST 32026 86241 (postcode NP19 0RD). The site location plan is presented in *Drawing JER6447-PER-001_D_150526*. The newly proposed installation boundary is presented in *Drawing JER6447-PER-004_D_150803*.
- 1.2.3 The application site is approximately 0.87ha in area and comprises the existing Wastesavers Recycling Depot together plus an additional area of currently vacant land to the north east that is 0.28ha in size. The two sections comprise of; the existing MRF comprising of a main yard and existing building the front of which houses the reception area, offices, meeting room,

canteen and toilet/cleaning facilities for staff, and the back of which contains the waste processing hall. The other section of the application site is a portion of adjacent land which will be developed to extend both the boundary of the current site and the existing building to facilitate additional waste storage and loading space. Access to the site is via the existing access to the MRF from Esperanto Way.

- 1.2.4 The wider area is an industrial landscape comprising Felnex, Stephenson Street and Reevesland Industrial Estates. The River Usk is approximately 120m east of the site boundary. The east-west running Southern Distributor Road is located approximately 1200m north of the site boundary.

Proximity to Sensitive Receptors

Residential Areas and other Sensitive Receptors

- 1.2.5 The nearest residential areas and other sensitive receptors to the proposed application site have been identified as follows:
- River Usk (120m west);
 - Coronation Park (100m south);
 - Royal Gwent Hospital (1500m north west);
 - Alexandra Road (600m north west);
 - Lysaght Way (1km north east)

Ecological Designations

- 1.2.6 There are two internationally designated nature conservation sites within 10km of the site, the River Usk Special Area for Conservation (SAC) (120m to the south) and the Severn Estuary SAC with Marine Components, Special Protection Area SPA with marine components and RAMSAR site (3km to the south).
- 1.2.7 There is one nationally designated nature conservation site within 2km of the site: the River Usk (SSSI) (120m west). There are three more within 3km: the Newport Wetlands (SSSI) (3km south east); the Gwent Levels (SSSI) (3km south east); and the Severn Estuary (National Nature Reserve) (3km south).
- 1.2.8 There are no non-statutory designated nature conservation sites within 2km of the application site. There is an RSPB Reserve 3.5km to the south of the site.
- 1.2.9 The nearest named watercourse is the River Usk which is located approximately 120m west of the site.
- 1.2.10 No artificial watercourses / features (e.g. canals, reservoirs) have been identified within 1km of the site except Alexandra Docks which is approximately 800m west of the site on the other side of the River Usk.

1.3 General Project Description

1.3.1 This section provides an overview of the proposals. This is supplemented by further details in Sections 2 - 6 as follows:

- Section 2 details the proposed management practices which will be in place at the Materials Recycling Facility with specific detail relating to:
 - Accident Management;
 - Energy Efficiency;
 - Efficient use of raw materials and water;
 - Avoidance, recovery and disposal of wastes.
- Section 3 addresses the operational measures which will be in place to prevent and/or control the environmental effects of the proposals.
- Section 4 identifies the nature of emissions from the Materials Recycling Facility and details the monitoring systems which will be in place.
- Section 5 summarises the conclusions from the detailed assessments undertaken to predict the environmental effects from the Materials Recycling Facility.

1.3.2 The information provided within this application has been set out with due regard to the BAT guidance provided within EPA 1.0 How to Comply with your Environmental Permit Environment Agency, 2013; The Waste Framework Directive, DEFRA, March 2010; and EPA 5.06 Recovery and Disposal of Hazardous and Non Hazardous Waste Activities, Environment Agency, 2004.

1.3.3 The application site is an existing site which is to be expanded to increase storage; the site currently operates under various exemptions. The application will allow for an increased throughput of materials and an expansion of permitted wastes, which will help increase the recycling rate in the area meeting new statutory recycling targets. The proposed throughput of the facility would be approximately 21,000 tonnes per annum.

1.3.4 The MRF will treat and store paper, cardboard, cans, glass, plastics, textiles, small domestic appliances and food wastes before onward transfer for recycling/re-use. Meeting demand from both domestic customers (approximately 145,000 population) and commercial customers who also have new obligations under the Welsh Government recycling targets to separate more materials. Increasing the throughput of material and raising the recycling rate at the site will help to meet the Welsh Government recycling targets and further reduce waste to landfill.

1.3.5 The main elements of the Materials Recycling Facility will comprise:

- Pre-Acceptance Waste Assessment;
- Weighbridge;
- Waste acceptance;
- Waste Reception building (bulker, bailer) and storage;
- External storage;
- Vehicle wash;

- Offices;
- A new one-way circulation route around the site with a new egress onto Esperanto Way area parking;
- Additional Parking and
- Fire Detection and Protection System.

2 Detailed Project Description

2.1 Waste Reception

- 2.1.1 The Materials Recycling Facility currently accepts paper, cardboard, cans, glass, plastics, textiles, small domestic appliances and food wastes. These waste types will form the basis of the newly permitted MRF waste types and will be amended to include more waste types as detailed in *Appendix 1*.
- 2.1.2 An environmental risk assessment based on the H1 Environmental Risk Assessment Tools has been completed for the proposed operations at the facility and is included in the Environmental Risk Assessment document.
- 2.1.3 Materials will be assessed as part of the pre-acceptance checks; assessment will be in line with the Wastesavers standard operating procedure “Kerbside Collection”. Materials will be off loaded into the relevant bays and then baled/stored for onward reprocessing.

2.2 Waste Processing

- 2.2.1 Waste will be checked and then undergo treatment in readiness for onward transfer for recycling or re-use. Treatment will include sorting, bulking, baling and storage.
- 2.2.2 Food wastes will be bulked covered and stored within an enclosed barn in readiness for onwards transfer to another regulated facility for recycling.
- 2.2.3 Steel, aluminium, and plastics are sorted and baled on receipt. Card is also baled on receipt. All other materials will be sorted in readiness for onwards transfer.
- 2.2.4 Once processed, materials will be stored in designated and segregated storage areas ready for collection (see *Drawing JER6447-PER-004_D_150803_Installation Boundary*). Processed waste will be weighed at the outgoing weighbridge for onward transport off-site for recycling/re-use.

3 Operations

3.1 Pre-Acceptance Procedures to Assess Wastes

- 3.1.1 All deliveries to the Waste Reception building will be subject to pre-acceptance evaluation prior to arrival on site and it will be recommended that a delivery schedule be agreed with commercial customers prior to arrival on site.
- 3.1.2 Wastesavers offers a kerbside collection. Collections are made in accordance with the Standard Operating Procedure “Kerbside Collection” (*Appendix 7*).
- 3.1.3 The following information will be requested from all customers (local authority and commercial) prior to booking in for acceptance:
- Waste EWC Code;
 - Process generating SIC Code (where appropriate);
 - Delivery container type (where appropriate);
 - Written description of the material; and
 - Anticipated date and time of delivery.
- 3.1.4 For each new waste enquiry and comprehensive characterisation of the waste and identification of a suitable treatment method will be undertaken.
- 3.1.5 Where applicable, for existing waste customers, a representative sample of the waste will be taken from the production process and analysed.
- 3.1.6 All deliveries will be subject to a Waste carriers licences check.

3.2 Waste Acceptance

General

- 3.2.1 The incoming waste recyclables will be delivered to the Materials Recycling Facility within enclosed / sheeted vehicles which reduces the potential for dust emissions during transport. The use of enclosed vehicles reduces the potential for dust emissions during transport.
- 3.2.2 All vehicles entering the site will drive to the weighbridge (located next to the offices) to undertake Duty of Care paperwork checks and take instructions from the Weighbridge Operator. Where appropriate, first time visitors will be required to confirm their registration as a waste carrier to the site and will be issued with instructions on health and safety and site procedures.
- 3.2.3 Visitors to the site will be required to sign the Visitors Book in reception before proceeding onto the site, and sign out prior to leaving. Unless they are approved subcontractors undertaking e.g. maintenance works, all other visitors are escorted around the facility.

- 3.2.4 In order to fulfil Duty of Care requirements, drivers of vehicles bringing waste to the site must provide a waste transfer note detailing the source location and description of the waste they are carrying. Annual duty of care notes will be accepted for those repeat / contractual customers for inputs where the producer, description of waste, approximate quantity and carrier does not vary. A copy of these notes will be held at the site office.
- 3.2.5 Where possible the Weighbridge Operator will carry out a visual inspection of the incoming materials, however, materials will be inspected at the kerbside in line with Wastesavers "Kerbside Collection" standard operating procedure.
- 3.2.6 Provided the Weighbridge Operator is satisfied with the incoming load the vehicle will be directed to the designated areas for offloading and processing (see *Drawing JER6447-PER-004_D_150803_Installation Boundary*). Where the Weighbridge Operator is not satisfied with the paperwork provided or the description of the incoming waste loads the vehicle will either be directed to a holding area on site pending further information / inspection or will be rejected directly from the site.
- 3.2.7 If the Weighbridge Operator is satisfied that the waste is not acceptable under the terms of the Environmental Permit, entry to the site will be refused and the details of the event recorded separately in the site diary.

Waste Inspection

- 3.2.8 Once the vehicle has completed its pre-acceptance and Duty of Care paperwork checks the vehicle will be directed to the Waste Reception building, or other appropriate location, for offloading and processing.
- 3.2.9 The roller shutter doors of the Waste Reception building will be closed unless for access and egress. Access and egress will likely be required throughout operational hours..
- 3.2.10 Once the vehicle has reached the unloading area, it will offload the material into the appropriate location. Steel, aluminium and plastics will be separated and baled on receipt, and transported to designated storage areas. Incoming cardboard will also be baled, prior to storage. Glass and textiles will be unloaded in their respective storage areas. Unloading and storage operations will be overseen by a Site Operative who will undertake a visual inspection of the material. Any non-conforming wastes will be removed (either by hand / plant) and preferably reloaded for removal from site, or if not possible quarantined.
- 3.2.11 Food wastes are accepted at the facility for bulking and onwards transportation to appropriate final treatment facilities only. This waste will enter the food waste storage area and will be immediately bulked with the existing food waste waiting off site transportation.

Unacceptable Waste

- 3.2.12 If the Site Operative identifies wastes for which the site is not permitted during offloading, the vehicle registration number will be recorded and the client informed; where possible wastes will also be reloaded for removal from site.
- 3.2.13 If wastes cannot be removed from the site they will be quarantined within a sealed skip in the Waste Reception areas pending removal from the facility. A note will be made in the Site Diary of all non-conforming wastes on site.
- 3.2.14 Where incoming wastes are identified to contain dangerous or hazardous wastes that are not permitted, these will be quarantined and if necessary the area evacuated until Natural Resources Wales can be contacted for further guidance relating to the management of the material.
- 3.2.15 Should there be any reason to suspect that fumes or leakage is likely to affect site operatives and customers the site area will be evacuated and the fire service called out and specialist advice will be sought from them.
- 3.2.16 Appropriate actions to remove the substances from the site will be taken following consultations with the fire service and Natural Resources Wales.

Waste Quantity Measurement Systems

- 3.2.17 Quantities of incoming wastes to the facility shall be recorded in metric tonnes utilising the incoming site weighbridge. This information is retained on a central server that is backed up daily.
- 3.2.18 Quantities of outgoing products and commodities shall also be recorded, using the site's weighbridge.
- 3.2.19 All site records will be collated and stored at the site office so as to ascertain waste throughput at the site and the quantity of waste / products exported from the site by weight and type on a monthly basis.
- 3.2.20 The weighbridge is to be calibrated annually in accordance with the manufacturer's recommendations.

3.3 Waste Management

General

- 3.3.1 All wastes will be stored in line with the requirements of the relevant Directives and associated guidance documents as listed in *Section 1.3* above.
- 3.3.2 The MRF has been designed with the intention of processing general household wastes sourced from the public and similar commercial wastes.

Materials Recycling Facility

- 3.3.3 The MRF is classified as a Recovery Activity rather than a Disposal Activity under the following categories as defined in annex 2 of the Waste Framework Directive.
- **R3:** Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological transformation process).
 - **R4:** Recycling / reclamation of metals and metal compounds;
 - **R5:** Recycling / reclamation of other inorganic materials;
 - **R11:** Use of waste obtained from any of the operations numbered R1 to R10
 - **R12:** Exchange of waste for submission to any of the operations numbered R1 to R11
 - **R13:** Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)
- 3.3.4 The process activities carried out at the MRF include the following:-
- Manual and mechanical sorting;
 - Screening
 - Bulking;
 - Metals separation; and
 - Baling;
- 3.3.5 The MRF will sort and screen the received wastes before bulking according to type:
- Cardboard will be baled and stored;
 - Plastics, Steel and Aluminium cans will be sorted, baled and stored;
 - Glass will be stored for recycling;
 - Paper and Textiles will be stored;
 - Food waste will be bulked and stored for onwards transportation to appropriate final treatment facilities for recycling.
- 3.3.6 A conveyor belt feeds the materials into the baler. Bales are then transported to their respective storage locations.
- 3.3.7 Bales are regularly inspected to ensure they remain sealed.
- 3.3.8 Food wastes will be covered and stored in readiness for onwards transfer to another regulated facility for recovery.
- 3.3.9 Plastics and steel bales generated on site are moved outside for storage in the external designated storage areas on site.
- 3.3.10 Aluminium, paper, card and food will be stored inside. Glass, plastics acting as an overspill will be stored in external storage areas ((Drawing JER6447-PER-004_D_150803)
- 3.3.11 The facility has the capacity to store a maximum of 254 bales of segregated waste in the designated storage areas (Drawing JER6447-PER-004_D_150803). When sufficient stock has

accumulated these bales are processed and transferred from the facility via enclosed vehicles for onward reprocessing.

- 3.3.12 On site checks will be made when placing the bales to ensure that guidance and site procedures are adhered to with regards to the storage of waste and fire risk at the facility. The Site Supervisor will observe bale storage arrangements and check these against the approved site plans.
- 3.3.13 Designated storage areas for all wastes on site are delineated on *Drawing JER6447-PER-004_D_150803*.
- 3.3.14 All storage areas will be provided with spill kits.
- 3.3.15 All designated storage areas and containers will be appropriately labelled.
- 3.3.16 A list of waste codes that will be accepted by the installation is included in permit application.

Transfer of Food Waste

- 3.3.17 The MRF is also utilised for the bulking and transfer of food waste. The waste are purely bulked and transferred at the facility only, they are not treated.

Raw Materials

- 3.3.18 The MRF does not require raw materials for its operation other than the wastes described in this application and fuels and oils for the plant and equipment on site. Fuel stored on site will be stored in bunded containers.

3.4 Closure and Decommissioning

- 3.4.1 A Site Closure Plan is in place at the facility as part of the sites Environmental Management System. This is subject to annual review and updated as and when operations on site change.

4 Management

4.1 General

- 4.1.1 An Environmental Management System (EMS) has been established in accordance with the requirements of EA Horizontal Guidance Note H6 – Environmental Management Systems. The EMS combines both the quality and health and safety management systems to form an Integrated Management System (IMS). An overview of the EMS can be seen in *Appendix 8*.
- 4.1.2 All staff and contractors will be made aware of the EMS as part of the induction training and a copy will be made available on site.
- 4.1.3 A system for keeping all relevant records including but not limited to the following is in place at the facility:
- Transfer notes /duty of care documentation;
 - Records of incidents, accidents and emergencies including details of follow-up; and
 - Other records required to be kept by the permit.
- 4.1.4 This procedure will be expanded to cover all aspects for record keeping required by the EMS under EA Horizontal Guidance Note H6 – Environmental Management Systems.
- 4.1.5 As part of the formal EMS, systems have been developed and implemented for undertaking audits, setting and reporting of environmental performance, objectives, targets and programmes for future improvements.
- 4.1.6 Prior to commencing commissioning of the upgraded MRF, all key procedures will be in place as detailed below.

Operations and Maintenance

- 4.1.7 Procedures are in place to ensure that those operations which have the potential to give rise to significant environmental effects are controlled. Procedures not only cover normal operation but also address abnormal operation. In particular procedures have been developed in relation to the following:
- Waste reception and handling, including waste acceptance procedures; and
 - Storage, handling and removal of wastes from the site.
- 4.1.8 Planned maintenance routines have been established to ensure all key plant components which have the potential to affect the environmental performance of the MRF remain in good working order. Maintenance routines draw on manufacturer's recommendations, and will be amended where operational experience during the lifetime of the MRF deems it necessary.
- 4.1.9 To mitigate the risk of unplanned maintenance Wastesavers will carry out the following:

- Consider redundancy to the design capacity of significant ancillary equipment with high probability for failure;
- Carry out preventative maintenance and monitoring in accordance with the procedures in the operations and maintenance manual;
- Implement service contracts that will ensure sufficient supply of spare components; and
- Arrange for adequate maintenance support to address unplanned equipment failures.

Competence and Training

- 4.1.10 Operator training will be provided to ensure that the MRF will be operated by a fully trained workforce. Training will not only address normal operations but will also include those actions required in the event of abnormal operations and emergencies.
- On an ongoing basis employees will be trained and made aware of the possible environmental impacts of their activities and emergency response training will be undertaken in line with our training procedures.
 - As specified on an individuals' certificates e.g. for first aid, individual Certificates of Technical Competence (CoTC) or Construction Site Certification Scheme (CSCS) cards. Mark Miller is currently working towards the CoTC. As agreed with NRW, if required WRAP will provide interim cover whilst Mark attains CoTC. Mark Miller will be the CoTC holder at the facility and the in-house CoTC trainer.
- 4.1.11 Job specifications will be defined and will include details on relevant qualifications and training (including where relevant on the job training) required for that role. Records of training will be stored and maintained. Records as a minimum will include details relating to the date, type of training and training provider.
- 4.1.12 All relevant staff (including contractors forming part of the commissioning team) will as necessary be made aware of the relevant requirements of the permit, in particular those conditions in relation to emission limits and notification procedures. A copy of the permit will be available for reference within the Weighbridge Office.
- 4.1.13 Procedures will also be in place to ensure that contractors undertaking work at the installation are qualified for the task they are undertaking.

Organisation

- 4.1.14 Roles and responsibilities will be clearly defined within the management system.
- 4.1.15 Further details on specific aspects of the management systems for the MRF are provided in the following sections.

4.2 Accident Management

- 4.2.1 An accident management plan (AMP) and procedures to follow in the event of an emergency or accident/incident are in place at the facility. These include small incidents such as minor spills

and leaks and complaints as well as major incidents such as a fire or explosion. In particular there will be a procedure including a system for recording and allocating appropriate follow-up for accidents, incidents and non-conformances.

- 4.2.2 The existing AMP will be reviewed and if necessary amended, to include relevant information related to the proposed changes to the MRF. It will be consistent with similar plans already in place for the existing MRF operated by Wastesavers, although tailored for the site and specific nature of activities subject to this application. Where relevant the AMP will include any actions required in the event of an incident, accident or emergency. The AMP will also consider risks posed by adjacent sites that could have the potential to impact on the site.
- 4.2.3 To support this application an initial environmental risk assessment is provided in *Appendix 6*.
- 4.2.4 This will be reviewed prior to commencing operation after the planned expansion development and maintained as part of the AMP throughout the operational life of the MRF.
- 4.2.5 Flooding
- 4.2.6 The NRW floodplain map indicates that the site is located within Flood Zone 3 (1 in 100 annual probability) of river flooding, however the risk of flooding from rivers and seas map indicates the specific area of the site is considered to have a low risk (less than 1 in 100 but greater than or equal to 1 in 1,000). The River Usk and its banks are considered the high risk areas (greater than to equal to 1 in 30), with the area east and south of the boundary of the site considered to have a medium (less than 1 in 30) flood risk.
- 4.2.7 Site levels are generally above 7 metres Above Ordnance Datum (AOD), with the built footprint at c. 7.2mAOD. The Environment Agency's flood map of April 2015 assumes there are no flood defences, indicates that the majority of the site lies within Flood Zone 3, and is at 'high probability' (1 in 200 or greater annual probability of flooding from the sea) of flooding. The site specific Flood Consequence Assessment in *Appendix 5*, summarised;
- 4.2.8 There is no historical evidence of flooding at the site.
- 4.2.9 The site is at negligible to very low susceptibility to surface water flooding.
- 4.2.10 The susceptibility to groundwater flooding is low.
- 4.2.11 The risk of flooding from infrastructure failure is considered to be low.
- 4.2.12 The risk of flooding from reservoir failure has been assessed as low to negligible.
- 4.2.13 The proposed development is appropriate for the present flood zone and the zone.
- 4.2.14 There will be a 3,043 m² increase in low permeability cover, with surface runoff to be controlled at an agreed rate.
- 4.2.15 The attenuation volume required to restrict runoff to the 1 in 1 year (100% annual probability) current runoff rate of 3.8 l/s from a 1 in 100 year storm event plus 20% for climate change has been determined to be approximately 192 m³ for the Site.

- 4.2.16 The outline drainage scheme indicates that run-off would run-off into a new drainage network, passing through an interceptor and 192 m³ storm water retention tank prior to discharging into the existing surface water system.
- 4.2.17 It is advised that Welsh Water is consulted to ascertain available capacity and any recommendation incorporated into the development drainage design scheme.
- 4.2.18 Concluding that the proposed development is at low risk of flooding and appropriate to the location, meeting the requirements of Planning Policy Wales and TAN15.

Fire Water

- 4.2.19 All surface water onsite discharge directly into the existing surface water sewer via an on-site oil interceptor.

Site Security

- 4.2.20 A closed circuit television system (CCTV) for process monitoring and security will be installed on site. The camera locations will be determined at the detail design stage.
- 4.2.21 The CCTV system will have the functionality to record, view and store images from different locations around the plant
- 4.2.22 Vehicles accessing the site will pass via a manned weighbridge. Where possible deliveries of wastes will take place during the following hours, although on some occasions it may be necessary for deliveries to be made outside these core hours:
- 07:00 to 17:30 hrs Monday to Friday, including Saturdays following a Bank Holidays.
- 4.2.23 There will be no reception / exports of wastes on Sundays or Bank Holidays, including Christmas, Boxing and New Year's Day.

4.3 Energy Efficiency

General Energy Efficiency Issues

- 4.3.1 The MRF has been designed and will be operated and maintained to minimise internal energy demand.
- 4.3.2 The MRF will require energy to operate e.g. electricity to drive pumps, motors etc. The energy will be supplied in the form of electricity to drive pumps and gas for heating in the office area.
- 4.3.3 An energy efficiency plan will be implemented and reviewed periodically in accordance with the requirements of the Environmental Permit.

Operating, maintenance and housekeeping measures

- 4.3.4 Where relevant, operating procedures will include details of techniques to ensure that the MRF is operated efficiently. Maintenance and housekeeping measures will be developed as part of the preventative maintenance system. This will include details of the measures specifically

aimed at maintaining the efficiency of the MRF during its operational life. In particular procedures will cover the following items:

- operation of motors and drives – daily/shift checks on operations and conditions;
- Lubrication systems – schedule for routine lubrication.

Physical Techniques

- 4.3.5 Insulation will be provided to avoid heat losses from relevant plant items and plant will be housed within buildings with doors kept shut other than for access.

Building Services

- 4.3.6 Energy requirements for building services will be low. Energy efficient lighting will be employed where feasible and lights will be turned off in unoccupied buildings where they are not required for safety or security reasons.
- 4.3.7 Space heating will be limited to manned areas such as the control room and administration areas, heating of other process buildings will not be required.

4.4 Efficient Use of Raw Materials and Water

- 4.4.1 The MRF will not use raw materials other than small amounts of water for the vehicle wash, cleaning and to service the office block.
- 4.4.2 In addition to water small quantities of general maintenance oils and greases will also be required and fuel for vehicles on site.

4.5 Avoidance, Recovery and Disposal of Wastes

- 4.5.1 Materials delivered to the site are managed via the on-site pre-acceptance procedures in place at the facility as detailed above.
- 4.5.2 Materials deposited at the MRF are pre-treated with a view to being transported to suitable third parties for recovery / recycling.
- 4.5.3 The metals screened out of the MRF processes are recovered via a suitable metals recovery facility. Any remaining bulky or oversize waste is reviewed for recovery and only disposed of where no alternative outlets are availability.
- 4.5.4 Effluent / leachate generated by the conveyor system, which carry plastics and cans is collected in the floors pits and then tankered off site for treatment as required.
- 4.5.5 In addition to the above main wastes, smaller quantities of waste oils, used drums and containers will be generated. Where possible, empty drums and containers will be returned to the manufacturers. Waste oils will be sent for recycling. Any off specification materials accepted at the facility are also likely to require alternative disposal / recovery; although volumes cannot be defined, they are expected to be low.
- 4.5.6 Where ever possible, Wastesavers will seek to recover or recycle wastes rather than disposing of them.

5 Emissions Control and Abatement

5.1 Emissions to Air

- 5.1.1 There are no point source emissions to air at the site.

5.2 Emissions to Surface Water and Sewer

- 5.2.1 There are no point source emissions to surface or groundwater at the site.
- 5.2.2 Water runoff from the vehicle wash is collected, discharges via a Class 1 Interceptor into the existing surface water sewer. This area is bunded by a concrete kerb.
- 5.2.3 Surface water from the site, including rain water runoff from roofs of the buildings will be collected through slotted drains (around the perimeter of the site) and surface water manholes located around the site (Drawing JBR2664 200 Drainage Layout). The site operates a Green Water system enabling rainfall collected from the roof to be reused for flushing the toilets and washing vehicles.
- 5.2.4 All surface water will run through a sealed pipe drainage system to existing surface water sewer (south and west of site). All site drainage, including run-off from the vehicle wash will discharge via a Class 1 Interceptor before discharging into the surface water sewer. The existing surface water sewer passes flows from the existing Wastesavers site and the wider industrial estate into an attenuation pond, before final discharge into the River Usk.
- 5.2.5 Flows collected from the internal road ways and associated hardstanding areas will be passed through a Class 1 Bypass Separator compliant with the Environment Agency's pollution guidance documentation.
- 5.2.6 All external yard and roads pavements subject to vehicular traffic are also drained through pollution prevention devices in the form of class 1 full separator units. There is a dedicated fuelling area for the on-site plant a class 1 forecourt separator is incorporated locally for this in addition to the main separator, therefore effectively providing two tier protection. The fuel tank will be an above ground self bunded unit with integral pump cabinet.

5.3 Emissions to Land

- 5.3.1 There will be no direct or indirect releases to land or groundwater from the MRF.

5.4 Fugitive Emissions

- 5.4.1 Fugitive releases have been identified and assessed as part of the Environmental Risk Assessment (see *Appendix 3*). The assessment indicates that the proposed measures for control of fugitive releases will ensure that no significant risks from fugitive releases are expected from the proposed MRF.

- 5.4.2 Fugitive emissions of dust to air are limited at the facility as on-site activities are managed to limit emissions, including the nature of materials delivered on and off site. Where appropriate roller shutter door systems are employed and remain closed except for access and egress.
- 5.4.3 Good housekeeping practices will be in operation to ensure that any spillages of potentially dusty materials are cleared up at the earliest opportunity and vehicles will benefit from the on-site vehicle wash. Yard areas will be regularly cleaned.
- 5.4.4 Spill kits will be available for clean-up of any oils stored and used within the MRF and will be located in proximity to the relevant storage area(s) and/or delivery points. Site personnel will be appropriately trained in the use of these kits. Site procedures will detail those actions which should be followed in the event of a spillage.
- 5.4.5 Fugitive emissions to surface water / groundwater are limited at the facility as all processing activities are undertaken within buildings with sealed drainage that is collected and discharged into the mains sewer, with the exception of periodical process water in the conveyors floor pits, which is collected and tankered away for off-site treatment. All external surfaces are hard standing with impervious surfaces and surface water collected outside of the buildings feeds into the sealed drainage system. Impervious surfaces and containment facilities are subject to an inspection and maintenance programme.
- 5.4.6 Given the above control measures run off from process areas at the facility are contained within the sealed water system.
- 5.4.7 The incoming waste storage bays will be constructed of concrete and will be impervious.
- 5.4.8 All process areas will be located on hard standing.
- 5.4.9 All bunds will be visually inspected to ensure they remain free of rainwater and spillages/leaks and that their condition has not deteriorated (i.e. no signs of cracks or damage).
- 5.4.10 Bunds will be designed to catch leaks from the existing on-site diesel tank.
- 5.4.11 Bunds will have no outlet (i.e. no drains or taps) and drain to a blind collection point. Any pipework will be routed within bunded areas with no penetration of contained surface.
- 5.4.12 Storage areas will have appropriate signs and notices and be clearly marked out and all containers will be clearly labelled with their contents.
- 5.4.13 Procedures will be in place for visual inspection of all bunds to ensure they remain free from accumulation of rainwater and any spillages or leaks. Good housekeeping practices will be employed at all times. In the event of visible oil and grease being present in the water, the contaminated waters would either be treated on site or tankered for off-site disposal.
- 5.4.14 Following completion of the detailed design stage a final site drainage plan will be made available to NRW; 'JBR2664 200 – Drainage Layout' provides an indicative drainage plan for the site.

- 5.4.15 During commissioning of the new underground surface drains and foul drains (to serve the extension) will be subject to integrity testing and will be certified as sound prior to operations recommencing.
- 5.4.16 Fugitive emissions to air are unlikely to occur as a result of the following control measures which will be implemented:
- Food waste will be bulked, covered and stored within an enclosed barn in readiness for onwards transfer to another regulated facility.
 - Roller shutter doors, where appropriate, will be used, kept closed and only opened for vehicle access / egress;
 - Waste bales are stored no more than 5 bales high in designated storage areas to restrict damage from passing vehicles;
 - Plant has been designed to minimise handling where possible;
 - Roadways on site will be surfaced to prevent dust creation;
 - Waste will be delivered to site in covered vehicles;
 - Planned preventative maintenance (PPM) will be implemented to reduce the risk of unplanned/abnormal emissions from plant and equipment;
 - Roads and vehicle will be regularly cleaned to minimise the risk of any mud being transferred to the public highway;
 - Skips and other storage vessels will be covered or located within a building.

5.5 Odour

- 5.5.1 The primary source of odour from the MRF is from the incoming food waste.
- 5.5.2 Odorous wastes will arrive on site in enclosed vehicles and will be stored within an enclosed building and transported off-site within 24 hours of receipt.
- 5.5.3 An Odour Management Plan for the facility is attached in *Appendix 8* and includes the following control measures:-
- Ensure that roller shutter doors on the Food Waste building are maintained shut other than for vehicle access / egress;
 - Process food wastes within 24 hours of arrival on site to reduce degradation potential;
 - Only retain food wastes for onwards transfer on site for a maximum of 24 hours to reduce degradation potential, food will normally be less than 24 hours; and
 - Update OMP on a regular basis
- 5.5.4 No complaints have been received at the site in regard to odour.

5.6 Control of Flies and Pests

- 5.6.1 Pest Management has been identified as a risk at the site. The Environmental Risk Assessment, as part of the onsite EMS proposes the following control measures at the facility:-

- Outside operational hours, all roller shutter doors are to be kept closed. Roller shutter doors will remain closed unless for access and egress;
- Potentially odorous materials are to be processed within 24 hours of arriving on site;
- No wastes, except baled, is to be stored externally to the building (excluding glass which will be stored covered in the designated glass bay and textiles which will be stored in a covered storage container);
- Further to the above where flies and pests are identified on site an investigation will be undertaken to determine the specific type of pest / fly that is present to enable the most effective control measures to be implemented.

5.7 Noise and Vibration

- 5.7.1 Noise and vibration effects from the MRF are not expected to change as the site is already in operation and no complaints have been received previously.
- 5.7.2 There will be a short period during the construction of the extension to the site where noise levels might increase slightly due to construction works.
- 5.7.3 Increased traffic in relation to extra deliveries on and off the site has been considered at the planning stage and is not expected to have a significant impact.
- 5.7.4 On the basis of the above it has been deemed that there will be no significant adverse effects arising from noise from the operation of the MRF.

5.8 Monitoring and Reporting of Emissions (Water, Sewer and Air)

- 5.8.1 The proposed monitoring arrangements are summarised below. These will be agreed in detail through the Environmental Permitting process administered by NRW.

Monitoring and Reporting of Emissions to Water and Sewer

- 5.8.2 Although water discharges from the site are predicted to increase, the existing arrangements for monitoring and reporting will continue.
- 5.8.3 Discharges to sewer will be limited to domestic effluents from the onsite amenities and site drainage.

Monitoring and Reporting of Waste Emissions

- 5.8.4 The mass / volume of the waste will also be recorded, through the weighbridge, prior to off-site transportation.
- 5.8.5 Incoming and outgoing waste will be sampled and the composition will be analysed and reported to the regulator as per the Material Facilities Regulatory Guidance.
- 5.8.6 No hazardous waste will be treated at the site and therefore there is no need to monitor the hazard characteristics of waste or record handling precautions / substances with which it cannot be mixed.

6 Environmental Risk Assessment Summary

- 6.1.1 To support this application an environmental risk assessment has been completed. The full details of this assessment is appended to this application and for each of the environmental issues discussed within this section a reference to the location of the full assessment is provided.

6.2 Emissions to Air

- 6.2.1 There are no point source emissions to air at the site.

6.3 There are no point source emissions to air at the site Emissions to Water and Sewer

- 6.3.1 Although the proposed Facility will increase process emissions to sewer these are not considered to be significantly different from those currently discharged.

6.4 Noise

- 6.4.1 The facility has been operational for ten years. The facility is located in an industrial setting. It is envisaged the noise levels will not elevate above the existing background noise levels.

References

1. Getting the Basics Right, (EPR 1.00), April 2008, Environment Agency.
2. Combustion Activities (EPR 1.01), March 2009, Environment Agency.
3. EPR – H1, Environmental Risk Assessment, Part 1, Simple assessment of environmental risk for accidents, odour, noise and fugitive emissions, version 080328, 28th March 2008, Environment Agency.
4. EPR – H1, Environmental Risk Assessment, Part 2, Assessment of point source releases and cost-benefit analysis, version 080328, 28th March 2008, Environment Agency.
5. IPPC H1 Integrated Pollution Prevention and Control (IPPC), Environmental Assessment of BAT, Version 2, July 2003, Environment Agency.
6. IPPC H2 Integrated Pollution Prevention Control (IPPC), Energy Efficiency, Version 3, February 2002, Environment Agency.
7. SI 1994/2716 Conservation (Natural Habitats etc.) Regulations 1994.

Drawings

Appendices

List of European Waste Codes to be accepted at MRF

Environmental Risk Assessment

Flood Consequences Assessment

Appendix 4

OPRA Profile

Pre-Application Correspondence

Standard Operating Procedure Kerbside Collection

Odour Management Plan

Appendix 8

EMS Index