



Application Support Document

Crayford Material Recycling Facility

6th January 2026

Project No.: SOL_25_P143_N+P

Document Details

Document Title	Application Support Document
Document Subtitle	Crayford Material Recycling Facility
Project No.	SOL_25_P143_N+P
Date	6 th January 2026
Version	QMS_7.5.38_TEM – Template – Report Long Form – New Style (Perm) v5
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Client Name	N+P Crayford MRF Ltd

Document History

Version	Comments	Date	Author Initials	Reviewer Initials
11	1 st Issue to the EA	6 th January 2026	JE	SR

Signature Page

6th January 2026

Application Support Document

Crayford Material Recycling Facility



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Acronyms and Abbreviations

Name	Description
EA	Environment Agency
SRF	Solid Recovered Fuel
MRF	Materials Recovery Facility
SCR	Site Condition Report

NON-TECHNICAL SUMMARY

This document has been prepared on behalf of N+P Crayford MRF Ltd (*'The Applicant'* or *'N+P'* hereafter) by Sol Environment Ltd and provides supporting evidence as required by Environmental Permit Application Forms Part C2 and C3 issued by the Environment Agency (EA).

The subject site is located at Crayford Materials Recycling Facility, Century Wharf, Crayford Creek, Crayford, Dartford, Kent, DA1 4HQ.

The site is currently permitted under Environmental Permit EPR/KB3806FD/V002 as a Waste Operation to accept up to 350,000 tonnes per annum of mixed waste streams. A permit variation was submitted in April 2024 to increase the tonnage to 420,000 tonnes and to update the existing permit to more accurately reflect the existing site operations and waste types accepted by site. The application was duly made on 18th August 2025 and has only just been allocated for determination.

N+P is making this application to carry out a variation of their existing permit under The Environmental Permitting (England and Wales) (Amendment) Regulations 2018 in order to install a new Solid Recovered Fuel (SRF) plant. The existing mini MRF on site will be upgraded and converted into a SRF line. This will allow N+P to convert a high percentage of their end-of-life materials, coming from other waste processing lines on site, into an SRF material which will then be exported off site for use as a fuel.

N+P are also proposing to increase the Installation Boundary to include additional land which will be used for Welfare Facilities and additional bale storage.

As a result of the variation, due to the proposed SRF plant processing more than 75 tonnes per day to produce SRF for use as a fuel, the proposed plant meets the definition of an 'Installation' and will therefore be permitted under the following Scheduled Reference:

- Section 5.4 'Disposal, recovery or a mix of disposal and recovery of non-hazardous waste' Part A(b) (ii) – pre-treatment of waste for incineration or co-incineration.

The rest of the site activities carried out on site will remain permitted as a 'Waste Operation'.

Emissions to Air

The site currently has no point source emissions to air and none will be added as part of this permit variation application.

To ensure any potential dust and litter emissions are controlled on site, a Dust and Litter Management Plan has been produced and is provided in Annex F – Dust and Litter Management Plan.

Emissions to Controlled Water

There are no process emissions to controlled waters as a result of this permit variation.

The drainage system will be updated to capture the runoff from the proposed new storage area.

The remaining drainage network on site will remain as currently permitted, with two surface water emission points (Emission Point W1 and W2).

A detailed site drainage plan is provided within Annex A – Site Plans.

Emissions to Sewer

The site has an existing connection to main foul sewer, consented via a Trade Effluent Discharge Consent which is provided within Annex H – Trade Effluent Discharge Consent.

This captures surface water run-off from the areas north and west of the Baler Shed which flows to a below ground chamber before being pumped to foul sewer (Emission Point S1).

There will be no changes to the emissions to sewer as a result of this permit variation.

A detailed site drainage plan is provided within Annex A – Site Plans.

Emissions to Land

There are no emissions to land as a result of this permit variation.

1. INTRODUCTION

This document has been prepared on behalf of N+P Crayford MRF Ltd (*The Applicant* or *'N+P'* hereafter) by Sol Environment Ltd and provides supporting evidence as required by Environmental Permit Application Forms Part C2 and C3 issued by the Environment Agency (EA).

The site is located at Crayford Materials Recycling Facility, Century Wharf, Crayford Creek, Crayford, Dartford, Kent, DA1 4HQ.

The site is currently permitted under Environmental Permit EPR/KB3806FD/V002 as a Waste Operation to accept up to 350,000 tonnes per annum of mixed waste streams. A permit variation was submitted in April 2024 to increase the tonnage to 420,000 tonnes and to update the existing permit to more accurately reflect the existing site operations and waste types accepted by site. The application has only just been allocated for determination.

N+P is making this application to carry out a variation of their existing permit under The Environmental Permitting (England and Wales) (Amendment) Regulations 2018 in order to install a new Solid Recovered Fuel (SRF) plant. The existing mini MRF on site will be upgraded and converted into a SRF line. This will allow N+P to convert a high percentage of their end-of-life materials, coming from other waste processing lines on site, into an SRF material which will then be exported off site for use as a fuel.

N+P are also proposing to increase the Installation Boundary to include additional land which will be used for Welfare Facilities and additional bale storage.

As a result of the variation, due to the proposed SRF plant processing more than 75 tonnes per day to produce SRF for use as a fuel, the proposed plant meets the definition of an 'Installation' and will therefore be permitted under the following Scheduled Reference:

- Section 5.4 'Disposal, recovery or a mix of disposal and recovery of non-hazardous waste' Part A(b) (ii) – pre-treatment of waste for incineration or co-incineration.

The rest of the site activities carried out on site will remain permitted as a 'Waste Operation'.

The remainder of this application support document is structured accordingly:

- Section 2: Provides a detailed planning history of the site and associated activities;
- Section 3: Provides specific nature of the proposed changes associated with the variation application;
- Section 4: Provides a Best Available Techniques Justification;
- Section 5: Provides specific nature and detailed description of the emissions to air and water associated with the Installation;
- Section 6: Provides details of all monitoring associated with the Installation; and
- Section 7: Provides an Environmental Impact and Assessment of the varied Installation.

All technical appendices associated with the Installation are included within the following:

- Annex A: Figures;
- Annex B: Technical Information;

- Annex C: Environmental Risk Assessment;
- Annex D: Site Condition Report;
- Annex E: EMS Information;
- Annex F: Litter and Dust Management Plan;
- Annex G: Fire Prevention Plan;
- Annex H: Trade Effluent Discharge Consent;
- Annex I: WAMITAB Certification; and
- Annex J: Existing Permit;

The site location, current Installation Boundary and proposed Installation Boundary is provided below in Figure 1.1, 1.2 and 1.3.



Figure 1.1 Site Location



Figure 1.2 Existing Site Installation Boundary



Figure 1.3 Proposed Installation Boundary

2. PERMITTING HISTORY

The sites permitting history is provided in Table 2.1 below.

Table 2.1 Permitting History

Reference	Description	Status	Date
EPR/KB3806FD/V004	This variation application for an Installation permit.	-	-
EPR/KB3806FD/V003	Variation to increase the tonnage to 420,000 tonnes and to update the existing permit to more accurately reflect the existing site operations and waste types accepted by site.	Duly Made and Under Determination	18/08/2025
EPR/KB3806FD/V002	Varied permit issued to N&P Crayford MRF Ltd	Granted	18/08/2022
Notified of change of Company Name and Registered Office Address	Name and Registered office changed to N&P Crayford MRF Ltd, 3 Hardman Square, Spinningfields, Manchester, M3 3EB	Granted	07/03/2022
EPR/KB3806FD	Full transfer and Environment Agency initiated variation of permit complete	Granted	26/11/2021
EPR/WP3190EA/V004	Varied permit issued to Viridor Waste Management Limited	Granted	13/10/2020
Notified of change of Company Registered office Address	Registered office address changed to Viridor House, Priory Bridge Road, Taunton, Somerset, TA1 1AP	Granted	23/07/2020
EPR/WP3190EA/V003	Variation to incorporate exempt facilities previously held at the site. To do this it has been necessary to add a number of waste types and increase the maximum storage capacity of non-hazardous waste	Granted	23/08/2011
Notification of company name change	Letter received from Operator informing us of a company name change to Viridor Resource Management Limited	Granted	19/12/2007
EAWML 83464	Variation to alter conditions 1.1, 1.2.1, 1.2.2, 1.7.1 Table 4.4 and Appendix A	Granted	20/07/2007
EAWML 83464	Permit for a Material Recycling Facility issued to Grosvenor Waste Management Ltd	Granted	16/08/2004

The sites planning history is provided in Table 2.2 below.

Table 2.2 Planning History

Reference	Description	Status	Date
25/00884/FULM	Erection of upward and outward extensions to an existing waste processing building and ancillary building to facilitate an increased throughput of the wider facility to process an additional 70,000 tonnes per annum of mixed recyclables to a total maximum of 420,000 tonnes per annum.	In Determination	-
19/01181/FUL	For the erection of push wall and segregation walls to compartmentalise hard surfaced part of the site.	Granted	19/09/2019
18/00326/FULM	Proposed paper line upgrade, comprising an extension to the existing picking building, the relocation of an existing compressor and the siting of a storage container, following the demolition of three single storey lean-to buildings.	Granted	12/06/2018
01/00558/LDCE	Development of a waste materials facility for the recovery, recycling and bulking of waste classed under BD (General Industrial).	Granted	02/04/2008

3. DESCRIPTION OF VARIED CHANGES

3.1 Description of the Proposed Changes

The site is currently permitted under Environmental Permit EPR/KB3806FD/V002 as a Waste Operation to accept up to 350,000 tonnes per annum of mixed waste streams. A permit variation was submitted in April 2024 to increase the tonnage to 420,000 tonnes and to update the existing permit to more accurately reflect the existing site operations and waste types accepted by site. The application has only just been allocated for determination.

N+P is making this application to carry out a variation of their existing permit under The Environmental Permitting (England and Wales) (Amendment) Regulations 2018 in order to install a new Solid Recovered Fuel (SRF) plant. The existing mini MRF on site will be upgraded and converted into a SRF line. This will allow N+P to convert a high percentage of their end-of-life materials, coming from other water processing lines on site, into an SRF material which will then be exported off site for use as a fuel.

N+P are also proposing to increase the Installation Boundary to include additional land which will be used for Welfare Facilities and additional bale storage.

As a result of the variation, due to the proposed SRF plant processing more than 75 tonnes per day to produce SRF for use as a fuel, the proposed plant meets the definition of an ‘Installation’ and will therefore be permitted under the following Scheduled Reference:

- Section 5.4 ‘ Disposal, recovery or a mix of disposal and recovery of non-hazardous waste’ Part A(b) (ii) – pre-treatment of waste for incineration or co-incineration.

The rest of the site activities carried out on site will remain permitted as a ‘Waste Operation’.

Please refer to Table 3.1 which provides information on the permitted Listed Activities.

Table 3.1 Scheduled Activities

Activity Reference	Activity Listed in Schedule 1 of EP Regulations	Description of specified activity	Limitations of specified activity
A1	S5.4 A (b) (ii)	Disposal, recovery or a mix of disposal and recovery of non-hazardous waste’ Part A (b) (ii) ‘pre-treatment of waste for incineration or co-incineration’	
Waste Operation			
Description of Activities for Waste Operation		Limits of Activities	
D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where the waste is produced)		Maximum storage capacity of non-hazardous waste: 30,000 tonnes. Treatment for recycling or reclamation of waste consisting only of: Manual separation, mechanical	

<p>R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>R3: Recycling or reclamation of organic substances which are not used as solvents</p> <p>R4: Recycling or reclamation of metals and metal compounds</p> <p>R5: Recycling or reclamation of other inorganic materials</p>	<p>separation /sorting, optical separation, density separation (e.g. flotation tanks), screening, eddy current separators/magnets, compaction, baling and wrapping.</p>
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All waste activities carried out at the site i.e. waste reception, associated storage etc are all considered to be technically linked to the main activities detailed above and are undertaken within the Installation Boundary of the site.

3.2 Details of the Installation

3.2.1 Installation Boundary

N+P are proposing to increase the Installation Boundary to include additional land. All activities will take place within the sites Installation Boundary.

Due to the extension of the site’s Installation Boundary and the site’s proposed activities being classified as an Installation, a site specific Site Condition Report (SCR) has been produced in accordance with the EA Horizontal Guidance Note H5.

The SCR is included in Annex D – Site Condition Report which includes baseline data.

3.2.2 Site Infrastructure and Design

The site infrastructure will be updated on site to accommodate for the installation of the proposed SRF plant. N+P will convert the existing Materials Recovery Facility (MRF) plant, in addition to installing additional plant, to enable the production of SRF. The proposed location of the new plant is provided below in Figure 3.1.

A model plan and side view of the proposed plant is provided in Figure 3.2 and 3.3 below. Full details of the proposed SRF process is detailed below in Section 3.4.



Figure 3.1 Proposed Location of the SRF Plant

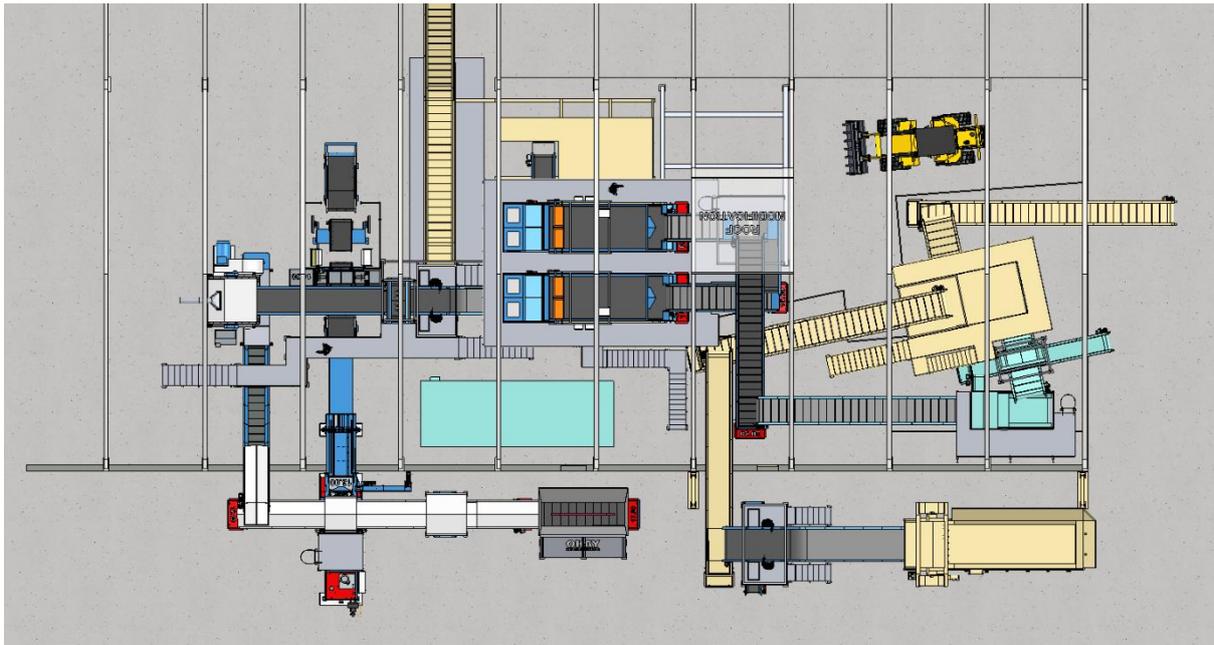


Figure 3.2 Model Plan View



Figure 3.3 Model Side Elevation

In addition to this, the Installation Boundary is being updated to include an additional area for bale storage. All storage will take place on sealed concrete hardstanding with a sealed drainage system.

Drainage

The majority of the drainage network on site will remain as currently permitted, however it will be updated to capture the runoff from the proposed new storage area which is currently undergoing design.

Surface water run-off from areas north and west of the Baler Shed located in the centre of the site flow to a below ground chamber before being pumped to foul sewer (Emission Point S1).

Emissions to foul sewer via Emission Point S1 will be managed and monitored in accordance with the sites effluent discharge consent (Ref: TLOROC13). A copy of the consent is provided within Annex H – Trade Effluent Discharge Consent.

The site also has two surface water emission point (Emission Point W1 and W2). The surface water drainage system is equipped with a three stage (Class 1) interceptor to enable the removal of solid and trace oil contamination prior to release to controlled waters. Both emission points are equipped with isolation valves with Emission Point W2 permanently closed. Monthly sampling is undertaken at both emission points which includes the following parameters:

- pH;
- Ammoniacal Nitrogen;
- Suspended Solids;
- Chloride;
- BOD; and
- COD.

The site surface water drainage system has been designed to be fully isolated to avoid the release of any potentially contaminated water from leaving the site in the event of a major incident, fire or emergency.

There are no potentially polluting releases to controlled waters during normal operations.

3.3 Raw Materials

Waste Feedstocks

The site is currently permitted to accept up to 350,000 tonnes per annum of mixed waste streams. A permit variation is currently under determination to increase the annual tonnage to 420,000 tonnes per annum.

Deliveries of waste will be restricted to the operational capacity of the site. Waste will only be accepted if there is sufficient storage capacity within the designated areas of the site.

All wastes will be accepted on site in accordance with the sites existing Operations, Development and Management Plan, a summary of which is provided within Annex E – EMS Summary.

A review of the European Waste Catalogue (EWC) codes of wastes that are accepted by the site has been carried out by N+P as part of the permit variation that is currently under determination. The updated list of EWC codes of wastes that are accepted by the site is provided in Table 3.2 below.

The SRF produced by the proposed new plant will be derived from clean Dry Mixed Recycling (DMR) which is a product from the existing activities on site. No additional wastes will be accepted by the site as a result of the new plant.

Table 3.2 Revised List of EWC Codes

Waste Code	Description
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES
04 02	wastes from the textile industry
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
10	WASTES FROM THERMAL PROCESSES
10 11	wastes from manufacture of glass and glass products
10 11 03	waste glass-based fibrous materials
10 11 12	waste glass other than those mentioned in 10 11 11
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 03	end-of-life tyres
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
16 01 22	components not otherwise specified
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATION SITES)
17 02	wood, glass and plastic
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 04	metals (including their alloys)
17 04 01	copper, bronze, brass

17 04 02	aluminum
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising)
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	glass
20 01 10	clothes
20 01 11	textiles
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	wastes from markets

Process Raw Materials

There will be no additional raw materials utilised on site as a result of this permit variation.

3.4 Description of the Process

The site infrastructure will be updated on site to accommodate the installation of the proposed SRF line. N+P will convert and upgrade the existing mini MRF into an SRF line. This will allow N+P to convert a high percentage of their end-of-life materials, coming from other water processing lines on site, into an SRF material which will then be exported off site for use as a fuel.

Existing Activities on Site

Process descriptions for the activities currently undertaken on site are provided in Table 3.3 below.

Table 3.3 Process Descriptions

Waste Type	Description	Mechanical Treatment Process
Mixed Recyclable Waste	Mixed recyclable waste is conveyed through a trommel, which separates materials by size. Smaller fractions (e.g. glass, shredded paper, bottle tops) fall through the holes for further treatment, while larger items (e.g. cans, bottles, cardboard) continue along the line. Ferrous and non-ferrous metals are removed using overband magnets and eddy current separators. Remaining materials are further sorted using optical sorters, ballistic separators and manual picking lines. Separated materials are then baled for storage or transport.	Trommels, Ballistic Separator, Overband Magnets, Eddy Current Separator, Optical Sorters, Baler
Plastic Waste	Plastic waste is separated from mixed materials using optical sorters, ballistic separators, and manual picking. It is then processed in the Plastic Sortation Plant, where plastics are further sorted from metals and glass using mechanical and automated systems. The separated plastics are stored in bunkers before being baled for transport.	Trommel, Ballistic Separator, Plastic Sortation Plant, Optical Sorters, Baler
Glass	Fine glass-rich fractions (<160 mm) drop through the trommel and ballistic separator paddles and are conveyed to the glass plant, where the material is screened to remove contaminants. Clean glass cullet is then transferred to bunkers or containers for onward recycling or re-melt.	Trommel, Ballistic Separator, Glass Plant, Plastic sortation Plant
Metals	Metals are separated from mixed waste streams using overband magnets for ferrous metals and an eddy current separator for non-ferrous metals such as aluminium. Additional separation may occur in the Plastic Sortation Plant. Sorted metals are then	Trommels, Overband Magnets, Eddy Current Separator, Plastic Sortation Plant

	stored in designated bunkers before being transported for off-site recycling.	
Paper and Cardboard	Paper and cardboard are separated from mixed waste during trommel screening and further refined through ballistic separation, optical sorting, and manual picking. Clean material is then baled for storage and transport.	Trommels, Ballistic Separator, Optical Sorters, Baler

Proposed New Activities – SRF Line

The SRF produced by the proposed new plant will be derived from clean Dry Mixed Recycling (DMR) which is a product from the existing activities on site. Figure 3.4 below shows the residual >150mm material what will be fed into the SRF plant. This material will be shredded as part of the proposed SRF line which will take place internally within the building.



Figure 3.4 Recycled Residual >150mm Material

The SRF plant will be configured so that the existing box feeder is utilised on site in its existing location. A new discharge conveyor will be installed and will include a pre-sorting cabin for two manual pickers to remove any oversize items. The remaining material will then fall onto the existing cross conveyor and enter the main area of the plant. The material will fall again onto the existing conveyor for the ballistic separator feed conveyor and then into the existing ballistic separator, which separates the materials into three fractions. The fractions are:

- Fines – which fall onto the existing fines conveyor system before being passed into the existing fines sorting line;
- 3D items – which roll off the near end of the ballistic separator screens and into the existing 3D collection bay; and

- 2D items - which pass to the far end of the ballistic separator screens and fall onto the existing 2D exit conveyor.

The ballistic separator takes the 2D materials under a free issue magnet which will be installed on new supports, and the magnet will remove any ferrous material which will fall into an existing N+P stillage. The remaining 2D materials pass over an existing eddy current separator, which removes the aluminium items and drops them onto an existing ferrous exit conveyor, followed by a second ferrous exit conveyor, which takes them outside the building and into N+P stillage.

The onward 2D items pass onto a new conveyor and then onto a new cross conveyor to elevate them to maximum height.

The materials then fall into a splitter to separate the materials into two streams. The first half of the material falls onto the upper NIR line, whereas the remaining half of the materials falls onto a transfer conveyor which will load them onto the lower NIR line. Both NIR lines are fed by a new conveyor system before passing under two Tomra NIR units. The materials then pass into two NIR hoods where the materials are separated into two streams. The two streams are made up of:

- SRF material; and
- Non-SRF material.

The non-SRF material falls onto a new reversible conveyor so that it can be fed into either Bay 3 or onto the SRF line. The SRF material falls onto a new separate reversible conveyor so that it can feed into either the SRF line or into Bay 2.

Any materials falling into the bays can be baled or removed by shovel. All material falling onto the SRF line will be transformed into SRF.

The next stage is to pass the remaining materials through a new picking cabin to allow the removal of any non-shreddable items, as well as the recovery of any additional recyclables.

The remaining materials pass out of the cabin under a new over band magnet, which removes the ferrous content and drops this into a storage container. The pre-SRF material then passes into a re-shredder, where the material is shredded down to 30mm. Steam from the re-shredder hood is intended to be relieved by ducting to outside.

The size-reduced material then passes out of the re-shredder and onto a new conveyor, which feeds onto a further new conveyor before falling into the free issue baler. The baler produces bales of SRF material, which pass out of baler and into a new CrossWrap wrapper. The wrapped bales pass onto the CrossWrap storage conveyor ready for collection by the operator and storage on site prior to export off site.

Sub 50mm Material Re-feed Line

The sub 50mm material from the re-feed line are loaded separately by loading shovel and brought to the new fines loading hopper, which feeds them onto an new elevating conveyor. This passes the sub 50mm material under a free issue overband magnet to recover the ferrous content and drop it into an N+P stillage.

The remaining fines are dropped into the baler to be part of the SRF bales. The SRF bales will be stored within the bale storage areas within bays 6 and 7.

Figure 3.4 below identifies the recycled sub 50mm material. This will be fed into the SRF process after the shredder. This material will not be shredded but loaded into the separate in-feed hopper as detailed above. This material is not dusty however there is a risk of litter. This is mitigated by a number of litter mitigation measures which are detailed within the sites Litter and Dust Management Plan which is provided within Annex F – Litter and Dust Management Plan.



Figure 3.5 Recycled Residual Sub 50mm Material

Proposed New Activities – Additional Land

As part of this application, an additional area of land is being included within the Installation Boundary. This area will be used for bale storage only.

The layout of this area has yet to be finalised, however it will meet the requirements of the Fire Prevention Plan Guidance.

3.5 Energy Efficiency

Energy required by the site is imported in the form of electricity from the National Grid. There are no other energy requirements on site.

A review of the sites energy efficiency is undertaken annually as part of the Integrated Management System. The review recommends practicable measures for improving energy efficiency and specifies a maximum period for actions to be undertaken.

All plant and equipment has been chosen both on ability to perform and on its energy efficiency. N+P have an operation and maintenance programme in place to undertake routine inspections and checks.

Plant will be monitored to ensure that no plant is operating ineffectively leading to the loss of energy. Regular maintenance will take place on site and any inefficient plant will be replaced.

A record of fuel consumption is maintained to enable identification and analysis of changes in the efficiency of plant. This information is used to identify the need for additional maintenance or operator training. It will also be used in the annual energy review.

3.6 Environmental Management System

N+P operate an Integrated Management System (IMS) that has been certified to ISO 9001:2015, ISO14001:2018 and ISO 45001:2018.

Site operations are operated in accordance with a suite of procedures, policies and controls. All aspects of the site operations will be managed in accordance with the sites Operations, Development & Management Plan which includes:

- Waste pre-acceptance and acceptance procedures;
- Preventative maintenance;
- Operator requirements;
- Training and competence;
- Emergency response and incident management; and
- Monitoring, measurement and reporting.

The IMS is designed to ensure:

- The identification of all foreseeable environmental impacts and risks that the operators activities pose to the environment;
- Prevention or minimisation of any identified risks to practical minimum;
- Legal compliance assurance;
- Identification of risks of pollution including those arising from operations, maintenance, accidents, incidents, non-conformances and complaints, and how these will be minimised;
- Activities at the site will be managed in accordance with the management system, which will be subject to continuous review, audit and improvement. Specific detailed management system reviews will take place if there is a significant change to the activities, following an accident or if a non-compliance is found; and
- Furthermore, the whole management system will be subject to an annual external audit by a competent third party.

The management plan and procedures have been written to ensure that the environmental risk and impact of the normal running of the site activities are documented and minimised. The management system is fully developed, implemented and in operation and a copy of the management system will be kept at a convenient location on site.

3.7 Operator Competence

All staff working for and on behalf of the site will be suitably trained and competent (e.g. professional maintenance engineers, electricians, equipment operators etc). All personnel working on site will be trained in the necessary sections of the EMS and associated procedures.

Additional activities will include general site housekeeping and administration activities. Additional staff attending the site will be visiting engineers from the equipment manufacturers who are adequately trained to perform their duties at site. The operator will maintain written operation instructions for all plant and monitoring equipment present on site.

A site manager / technically competent person who holds the necessary WAMITAB CoTC qualifications as required by the WAMITAB / EA Operator Competency Scheme will be on site to manage site operations. Adil Braqi holds the relevant WAMITAB qualifications as required by the WAMITAB competency scheme. Please refer to Annex I – WAMITAB Certification for a copy of the WAMITAB certificates.

3.8 Accident and Emergencies

N+P has developed a Unit Emergency Plan (UEPs) based around the specific risks associated with the site operations. The UEPs, in conjunction with the sites Risk Register addresses all potential abnormal conditions on site.

The key aspects of the sites UEPs are:

- Reviewed by the Site Management annually and as soon as practicable after an accident.
- Considers hazards presented by:
 - Actions in case of fire/explosion;
 - Actions in case of fire/emergencies;
 - Incompatible Feedstock/Unwanted Reactions;
 - Failure of mains services
 - Failure of any equipment/operator error;
 - Spillages and uncontrolled release;
 - Plant or equipment failure;
 - Vandalism; and
 - Flooding.
- Identifies events or failures that could damage the environment.
- Assesses the likelihood and the potential environmental consequences from accidents at the site.
- Proposes action to minimise the potential causes and consequences of accidents.

In the event of an accident, the EA will be immediately informed and necessary measures to limit the environmental impact of the accident will be carried out, as well as measures to prevent further possible accidents.

3.9 Fire Prevention Plan

Due to the proposed changes on site, an updated Fire Prevention Plan (FPP) has been developed to include the proposed external storage arrangement. The updated FPP has been included in Annex G – Fire Prevention Plan.

The Fire and Rescue Service undertake an annual site visit and are aware of the sites fire prevention measures.

4. BEST AVAILABLE TECHNIQUES JUSTIFICATION

All aspects of the process will be operated in accordance with the Best Available Techniques (BAT). Operations on site have been reviewed against The Waste Treatment BREF BAT Conclusions document.

Table 4.1 below highlights the relevant BAT requirements for the proposed activities and demonstrates how they are met.

Table 4.1 BAT Justification – BREF Waste Treatment

BAT Reference	BAT Conclusion	Justification
GENERAL BAT CONCLUSIONS		
Overall Environmental Performance		
BAT 1	In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates the features provided within the BREF document.	N+P operate an Integrated Management System (IMS) that has been certified to ISO 9001:2015, ISO14001:2018 and ISO 45001:2018. The IMS incorporates the relevant features outlines within the BREF document.
BAT 2	In order to improve the overall environmental performance of the plant, BAT is to use all of the techniques provided within the BREF document.	N+P implements the following on site: <ul style="list-style-type: none"> • Waste Pre-Acceptance, Acceptance and Rejection Procedures; • A waste tracking system and inventory; • A integrated management system; • Waste segregation according to the waste characteristics; • Ensures waste compatibility during waste inspections; and • The sorting of incoming waste by visual inspection.
BAT 3	In order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of waste water and waste gas streams, as part of the environmental management system (see	There are no process water emissions to controlled waters from the site.

	<p>BAT 1), that incorporates all of the features provided within the BREF document.</p>	<p>Surface water run-off from areas north and west of the Baler Shed located in the centre of the site flow to a below ground chamber before being pumped to foul sewer (Emission Point S1).</p> <p>Emissions to foul sewer via Emission Point S1 will be managed and monitored in accordance with the sites effluent discharge consent (Ref: TLOR0C13). A copy of the consent is provided within Annex H – Trade Effluent Discharge Consent.</p> <p>The site also has two surface water emission point (Emission Point W1 and W2). The surface water drainage system is equipped with a three stage (Class 1) interceptor to enable the removal of solid and trace oil contamination prior to release to controlled waters. Both emission points are equipped with isolation valves with Emission Point W2 permanently closed.</p> <p>The site surface water drainage system has been designed to be fully isolated to avoid the release of any potentially contaminated water from leaving the site in the event of a major incident, fire or emergency.</p> <p>The site currently has no point source emissions to air and none will be added as part of this permit variation application.</p> <p>An inventory of emissions from the site is maintained as part of the sites management system.</p>
<p>BAT 4</p>	<p>In order to reduce the environmental risk associated with the storage of waste, BAT is to use all of the techniques provided within the BREF document.</p>	<p>The following is carried out on site to reduce the environmental risk associated with the storage of waste:</p> <ul style="list-style-type: none"> • Optimised storage locations; • Adequate storage capacity; and • Safe storage operation.

		All waste reception, handling and storage areas are constructed on sealed concrete hardstanding which is impermeable to contamination. All surface water releases are controlled.
BAT 5	In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures.	<p>All handling and transfer of waste is carried out by competent staff and documented via the sites acceptance procedures and environmental management system.</p> <p>Prior to processing, all incoming wastes are inspected and accepted in accordance with a suite of procedures.</p> <p>Any spillages on site will be detected via the sites site walkover procedure and managed via the sites spill response procedure.</p>
Monitoring		
BAT 6	For relevant emissions to water as identified by the inventory of waste water streams (see BAT 3), BAT is to monitor key process parameters (e.g. waste water flow, pH, temperature, conductivity, BOD) at key locations (e.g. at the inlet and/or outlet of the pretreatment, at the inlet to the final treatment, at the point where the emission leaves the installation).	<p>N/A – there are no waste water streams from the process.</p> <p>Emissions to foul sewer via Emission Point S1 will be managed and monitored in accordance with the sites effluent discharge consent (Ref: TLOR0C13). A copy of the consent is provided within Annex H – Trade Effluent Discharge Consent.</p> <p>Emissions to foul sewer via Emission Point S1 will be managed and monitored in accordance with the sites effluent discharge consent (Ref: TLOR0C13). A copy of the consent is provided within Annex H – Trade Effluent Discharge Consent.</p> <p>The site also has two surface water emission point (Emission Point W1 and W2). The surface water drainage system is equipped with a three stage (Class 1) interceptor to enable the removal of solid and trace oil contamination prior to release to controlled waters. Both emission points</p>

		<p>are equipped with isolation valves with Emission Point W2 permanently closed. Monthly sampling is undertaken at both emission points which includes the following parameters:</p> <ul style="list-style-type: none"> • pH; • Ammoniacal Nitrogen; • Suspended Solids; • Chloride; • BOD; and • COD.
<p>BAT 7</p>	<p>BAT is to monitor emissions to water with at least the frequency given in the guidance, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.</p>	<p>N/A – there are no waste water streams from the process.</p> <p>Emissions to foul sewer via Emission Point S1 will be managed and monitored in accordance with the sites effluent discharge consent (Ref: TLOROC13). A copy of the consent is provided within Annex H – Trade Effluent Discharge Consent.</p> <p>Emissions to foul sewer via Emission Point S1 will be managed and monitored in accordance with the sites effluent discharge consent (Ref: TLOROC13). A copy of the consent is provided within Annex H – Trade Effluent Discharge Consent.</p> <p>The site also has two surface water emission point (Emission Point W1 and W2). The surface water drainage system is equipped with a three stage (Class 1) interceptor to enable the removal of solid and trace oil contamination prior to release to controlled waters. Both emission points are equipped with isolation valves with Emission Point W2 permanently</p>

		<p>closed. Monthly sampling is undertaken at both emission points which includes the following parameters:</p> <ul style="list-style-type: none"> • pH; • Ammoniacal Nitrogen; • Suspended Solids; • Chloride; • BOD; and • COD.
BAT 8	BAT is to monitor channelled emissions to air with at least the frequency given in the guidance, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.	There are no existing and no proposed channelled emissions to air on site, therefore this BAT conclusion is not a requirement.
BAT 9	BAT is to monitor diffuse emissions of organic compounds to air from the regeneration of spent solvents, the decontamination of equipment containing POPs with solvents, and the physico-chemical treatment of solvents for the recovery of their calorific value, at least once per year using one or a combination of the techniques given in the BREF guidance note.	N/A – no solvents are treated on site.
BAT 10	BAT is to periodically monitor odour emissions.	<p>The wastes that are accepted and processed on site are not odourous wastes.</p> <p>Due to the nature of the incoming waste, namely devoid of food or organic fines, there is a very low potential for odour generation through the site activities.</p>

		<p>The site has stringent waste pre acceptance and acceptance procedures which will ensure that no excessively odorous waste will be accepted onto site.</p> <p>Odour on site is assessed during the daily site inspection and recorded in the daily site log.</p>
BAT 11	BAT is to monitor the annual consumption of water, energy and raw materials as well as the annual generation of residues and waste water, with a frequency of at least once per year.	The facility will implement an annual review of the energy consumption of the plant and will report annually to the Environment Agency.
Emissions to Air		
BAT 12	In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1).	<p>Due to the nature of the incoming waste, namely devoid of food or organic fines, there is a very low potential for odour generation through the site activities.</p> <p>The site has stringent waste pre acceptance and acceptance procedures which will ensure that no excessively odorous waste will be accepted onto site.</p> <p>Odour on site is assessed during the daily site inspection and recorded in the daily site log.</p> <p>An Odour Management Plan is not required on site due to the low risk of odour emissions.</p>
BAT 13	<p>In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to use one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> • minimising residence times; • using chemical treatment; • optimising aerobic treatment. 	<p>Due to the nature of the incoming waste, namely devoid of food or organic fines, there is a very low potential for odour generation through the site activities.</p> <p>The site has stringent waste pre acceptance and acceptance procedures which will ensure that no excessively odorous waste will be accepted onto</p>

		<p>site. Any potentially excessively odorous waste loads are immediately rejected upon arrival in accordance with the sites waste rejection procedures. Should any odorous waste be mistakenly accepted, it will be transferred to the quarantine area and removed at the earliest opportunity.</p> <p>The site strictly controls the residence time of wastes on site in line with the storage times detailed within the sites Fire Prevention Plan.</p>
<p>BAT 14</p>	<p>In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given below:</p> <ul style="list-style-type: none"> ● Minimising the number of potential diffuse emission sources; ● Selection and use of high integrity equipment; ● Corrosion prevention; ● Containment, collection and treatment of diffuse emissions; ● Dampening; ● Maintenance; ● Cleaning of waste treatment and storage area; ● Leak detection and repair programme. 	<p>The material processed and stored on site is not considered odorous or dusty, therefore the risk of dust and odour from the site is low. The site has no history of dust or odour complaints.</p> <p>Dust, litter and odour reduction is achieved on site using the following measures:</p> <ul style="list-style-type: none"> ● Enclosure of existing processing activities in the mini MRF building and plastic processing plant building; ● Enclosure of the majority of the proposed SRF treatment process in the existing mini MRF building; ● Selection of high-integrity equipment where possible; ● Enclosure of external conveyors to prevent emissions of litter or dust; ● The proposed SRF plant is designed to ensure the drop heights into the feed hoppers are minimised; ● Drop heights of material are minimised as part of existing operations on site; ● Traffic speed is limited on site; ● Partial enclosure of the two proposed feed hoppers (one hopper for the recycled residual sub 50mm material and one hopper for

		<p>the recycled residual >150mm material) using a steel frame and steel cladding to minimise material escape;</p> <ul style="list-style-type: none"> • Daily cleaning schedule to prevent dust and litter escape from the hoppers; • Daily visual inspections to ensure that any potential diffuse / litter emissions are identified and action taken Fdustto prevent reoccurrence; • A dedicated site operative (already employed) to ensure litter is retrieved and prevented from escaping the site boundary; and • Once the proposed SRF plant is operational, additional controls measures will be considered such as dampening with a mist or fogging system. <p>The site operates in accordance with a Litter and Dust Management Plan which is provided in Annex F –Litter and Dust Management Plan.</p>
BAT 15	BAT is to use flaring only for safety reasons or for non-routine operating conditions (e.g. start-ups, shutdowns) by using both of the techniques given in the BREF Guidance.	N/A – there is no flaring on site.
BAT 16	In order to reduce emissions to air from flares when flaring is unavoidable, BAT is to use both of the techniques given in the BREF Guidance.	N/A – there is no flaring on site.
Noise and Vibration		
BAT 17	In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to set up, implement and regularly review a noise and vibration management plan, as part of the environmental management system (see BAT 1).	Given the context of the sites environmental setting, the impact of the variation will not result in any material increases in site noise emissions. The majority of the proposed equipment will be enclosed within the

		<p>existing mini MRF building. The existing processing activities on site are undertaken within the existing buildings on site.</p> <p>The site has a number of large industrial neighbours, major trunk roads (A206) and nearby railway lines, and does not have any sensitive residential and habitat receptors located in the near vicinity of the facility.</p> <p>The site does not have any history of any environmental noise or amenity complaints and is not considered sensitive in this regard. Therefore a noise and vibration management plan is not considered a requirement for the site.</p>
<p>BAT 18</p>	<p>In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to use one or a combination of the techniques given in the BREF Guidance.</p>	<p>Given the context of the sites environmental setting, the impact of the variation will not result in any material increases in site noise emissions. The majority of the equipment will be enclosed within the existing building.</p> <p>The site has a number of large industrial neighbours, major trunk roads (A206) and nearby railway lines, and does not have any sensitive residential and habitat receptors located in the near vicinity of the facility.</p> <p>N+P implement the following measures to mitigate any potential noise emissions:</p> <ul style="list-style-type: none"> • Appropriate location of equipment and buildings; • Planned preventative maintenance; • Equipment is operated by trained and experienced staff; • Site operational times are adhered to; and • White noise reversing alarms are utilised where necessary.

Emissions to Water

<p>BAT 19</p>	<p>In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques given in the BREF Guidance.</p>	<p>There are no process waste water streams from the operations carried out on site. However there will be surface water runoff from the external storage areas.</p> <p>There is no water used by the processes on site and therefore water consumption is low. The following measures are in place to reduce emissions to soil and water:</p> <ul style="list-style-type: none"> • Impermeable Surfaces – all storage and treatment areas are constructed on impermeable concrete hardstanding; • Any storage tanks and vessels are installed with the necessary secondary containment to prevent any failures of storage vessels. • The only external activities relate to storage and waste transfer. The processing activities are located within buildings. • The site surface water drainage system has been designed to be fully isolated to avoid the release of any potentially contaminated water from leaving the site in the event of a major incident, fire or emergency.
<p>BAT 20</p>	<p>In order to reduce emissions to water, BAT is to treat waste water using an appropriate combination of the techniques given in the BREF Guidance.</p>	<p>N/A – there are no waste water streams from the process.</p>

Emissions from Accidents and Incidents

<p>BAT 21</p>	<p>In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques given in the guidance, as part of the accident management plan (see BAT 1).</p>	<p>N+P has developed a Unit Emergency Plan (UEPs) based around the specific risks associated with the site operations. The UEPs, in conjunction with the sites Risk Register addresses all potential abnormal conditions on site. Section 3.10 below details the main aspects of the UEPs.</p>
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Material Efficiency

BAT 22	In order to use materials efficiently, BAT is to substitute materials with waste.	Raw materials on site are limited to diesel and chemicals which is used within mobile plant. At present, it is not economically viable to substitute these materials with waste alternatives, however N+P will undertake annual reviews of the process and endeavour to utilise wastes where feasible.
Energy Efficiency		
BAT 23	In order to use energy efficiently, BAT is to use both of the techniques given below: <ul style="list-style-type: none"> • Energy efficiency plan; and • Energy balance record. 	N+P will maintain both an energy efficiency plan and energy balance record.
Reuse of Packaging		
BAT 24	In order to reduce the quantity of waste sent for disposal, BAT is to maximise the reuse of packaging, as part of the residues management plan (see BAT 1).	The plastic wrap used for the proposed SRF bales is not processed or reused on site. It is used to protect the SRF material and then is ultimately processed / reused by the customer / receiving site. Any packaging on site that can be re-used will be, however minimal packaging is used. Waste is either stored loose or in bales (wrapped and non-wrapped). The purpose of the recycling activities carried out on site is to reduce the quantity of waste sent for disposal.
BAT conclusions for the mechanical treatment of waste		
BAT 25	In order to reduce emissions to air of dust, and of particulate-bound metals, PCDD/F and dioxin-like PCBs, BAT is to apply BAT 14d and to use one or a combination of the techniques provided in the guidance.	Due to the types of waste that the existing activities on site handle, dust is not an issue on site.

		<p>The existing waste stream accepted on site (mixed recyclable waste, plastic waste, glass, metals and paper and cardboard) are not dusty wastes and will not create emissions to air of dust.</p> <p>The SRF produced by the proposed new plant will be derived from clean Dry Mixed Recycling (DMR) which is a product from the existing activities on site. No additional wastes will be accepted by the site as a result of the new plant.</p> <p>This material is not dusty however there is a risk of litter. This is mitigated by a number of litter mitigation measures which are detailed within the sites Litter and Dust Management Plan which is provided within Annex F – Litter and Dust Management Plan.</p> <p>Dust is not identified to be relevant in the waste stream and activities carried out on site and therefore the BAT 25 does not apply.</p>
BAT 26 – 28	BAT conclusions for the mechanical treatment in shredders of metal waste	N/A – no shredding of metal waste takes place on site
BAT 29 – 30	BAT conclusions for the treatment of WEEE containing VFCs and / or VHCs	N/A – no treatment of WEEE waste takes place on site
BAT Conclusions for the mechanical treatment of waste with calorific value		
BAT 31	In order to reduce emissions to air of organic compounds, BAT is to apply BAT 14d and to use one or a combination of the techniques provided in the guidance.	<p>Due to the nature of the incoming waste, namely devoid of food or organic fines, there is a very low potential for odour generation through the processing of the waste itself.</p> <p>Organic compounds are not identified to be relevant in the waste stream and therefore the BAT 31 does not apply.</p>
BAT 32	BAT conclusions for the treatment of WEEE containing mercury	N/A – no treatment of WEEE on site

BAT 33 - 35	BAT conclusions for biological treatment of waste	N/A – no biological treatment on site
BAT 36 - 37	BAT conclusions for the aerobic treatment of waste	N/A – no aerobic treatment on site
BAT 38 - 39	BAT conclusions for the anaerobic treatment of waste	N/A – no anaerobic treatment on site
BAT 40 - 41	BAT conclusions for physio-chemical treatment of waste	N/A – no physio-chemical treatment on site
BAT 42 – 44	BAT conclusions for the re-refining of waste oil	N/A – no re-refining of waste oil on site
BAT 45	BAT conclusions for the physico-chemical treatment of waste with calorific value	N/A – no physio-chemical treatment of waste with a calorific value on site
BAT 46 – 47	BAT conclusions for the regeneration of spent solvents	N/A – no regeneration of spent solvents on site
BAT 48 – 49	BAT conclusions for the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil	N/A – no thermal treatment on site
BAT 50	Bat conclusions for the water washing of excavated contaminated soil	N/A – no water washing of excavated contaminated soil on site
BAT 51	BAT conclusions for the decontamination of equipment containing PCBs	N/A – the proposed operations do not include equipment containing PCBs
BAT 52 - 53	BAT conclusions for the treatment of water-based liquid waste	N/A – no treatment of water-based liquid waste on site

5. EMISSIONS AND THEIR ABATEMENT

5.1 Emissions to Air

The site currently has no point source emissions to air and none will be added as part of this permit variation application.

To ensure any potential dust and litter emissions are controlled on site, a Dust and Litter Management Plan has been produced and is provided in Annex F – Dust and Litter Management Plan.

5.2 Emissions to Controlled Water

There are no process emission to controlled water from the existing or proposed operations on site.

The majority of the drainage network on site will remain as currently permitted, however it will be updated to capture the runoff from the proposed new storage area which is currently undergoing design.

The site has two surface water emission point (Emission Point W1 and W2). The surface water drainage system is equipped with a three stage (Class 1) interceptor to enable the removal of solid and trace oil contamination prior to release to controlled waters.

Both emission points are equipped with isolation valves with Emission Point W2 permanently closed.

5.3 Emissions to Sewer

The majority of the drainage network on site will remain as currently permitted, however it will be updated to capture the runoff from the proposed new storage area which is currently undergoing design.

Surface water run-off from areas north and west of the Baler Shed located in the centre of the site flow to a below ground chamber before being pumped to foul sewer (Emission Point S1).

Emissions to foul sewer via Emission Point S1 will be managed and monitored in accordance with the sites effluent discharge consent (Ref: TLOROC13). A copy of the consent is provided within Annex H – Trade Effluent Discharge Consent.

5.4 Emissions to Land

There are no emissions to land from the existing or proposed operations on site.

5.5 Noise Emissions

Given the context of the sites environmental setting, the impact of the variation will not result in any material increases in site noise emissions. The majority of the proposed equipment will be enclosed within the existing mini MRF building. The existing processing activities on site are undertaken within the existing buildings on site.

The site has a number of large industrial neighbours, major trunk roads (A206) and nearby railway lines, and does not have any sensitive residential and habitat receptors located in the near vicinity of the facility.

The site does not have any history of any environmental noise or amenity complaints and is not considered sensitive in this regard. The existing site operations are not subject to any noise conditions or required to operate in accordance with an agreed noise management plan.

5.6 Dust and Litter Emissions

As visually demonstrated within Figures 3.4 and 3.5, the material processed on site is not dusty.

The existing waste stream accepted on site (mixed recyclable waste, plastic waste, glass, metals and paper and cardboard) are not dusty wastes and will not create emissions to air of dust.

The SRF produced by the proposed new plant will be derived from clean Dry Mixed Recycling (DMR) which is a product from the existing activities on site. No additional wastes will be accepted by the site as a result of the new plant.

This material is not dusty however there is a risk of litter. This is mitigated by a number of litter mitigation measures which are detailed within the sites Litter and Dust Management Plan which is provided within Annex F – Litter and Dust Management Plan.

The existing and proposed dust and litter mitigation measures on site are as follows:

- Enclosure of the existing processing activities in the mini MRF building and plastic processing plant building;
- Enclosure of the majority of the proposed SRF treatment process in the existing mini MRF building;
- Enclosure of external conveyors to prevent emissions of litter or dust;
- The plant is designed to ensure the drop heights into the feed hoppers are minimised;
- Traffic speed is limited on site;
- Partial enclosure of the two proposed feed hoppers (one hopper for the recycled residual sub 50mm material and one hopper for the recycled residual >150mm material) using a steel hood minimise material escape (Figure 5.1, below, provides an illustration of the proposed steel hood);
- Daily cleaning schedule to prevent dust and litter escape from the hoppers which includes the site and equipment is cleaned twice on each 12 hour shift. Two cleaning sessions are completed during each shift in addition to a minimum 30 minute clean at the end of each shift;
- Road sweeper utilised on site and operational each morning and additionally throughout a shift if required;
- Daily visual inspections to ensure that any potential diffuse / litter emissions are identified and action taken to prevent reoccurrence;
- A dedicated site operative (already employed, full time) to ensure litter is retrieved and prevented from escaping the site boundary; and
- Once the plant is operational, additional controls measures will be considered such as dampening with a mist or fogging system.

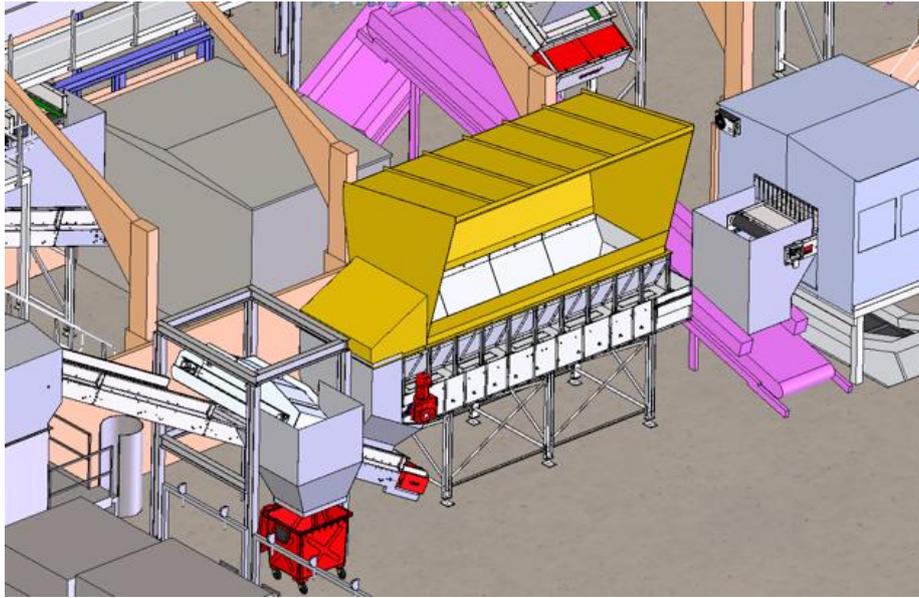


Figure 5.1 Steel Hood proposed for the two proposed feed hoppers

5.7 Odour Emissions

Due to the nature of the incoming waste, namely devoid of food or organic fines, there is a very low potential for odour generation through the site activities.

The site has stringent waste pre acceptance and acceptance procedures which will ensure that no excessively odorous waste will be accepted onto site. In the unlikely event that potentially odorous waste loads are accepted on site, they will be immediately rejected upon arrival in accordance with the sites waste rejection procedures. Should any odorous waste be mistakenly accepted, it will be transferred to the quarantine area and removed at the earliest opportunity.

6. ENVIRONMENTAL MONITORING

6.1 Emissions to Air

There are no emissions to air, therefore no monitoring is required.

6.2 Emissions to Controlled Water

Although there are no process emissions to controlled water, there will be surface water runoff from the external storage areas.

The site also has two surface water emission point (Emission Point W1 and W2). The surface water drainage system is equipped with a three stage (Class 1) interceptor to enable the removal of solid and trace oil contamination prior to release to controlled waters. Both emission points are equipped with isolation valves with Emission Point W2 permanently closed. Monthly sampling is undertaken at both emission points which includes the following parameters:

- pH;
- Ammoniacal Nitrogen;
- Suspended Solids;
- Chloride;
- BOD; and
- COD.

The site surface water drainage system has been designed to be fully isolated to avoid the release of any potentially contaminated water from leaving the site in the event of a major incident, fire or emergency.

There are no potentially polluting releases to controlled waters during normal operations.

6.3 Emissions to Sewer

Emissions to foul sewer via Emission Point S1 will be managed and monitored in accordance with the sites effluent discharge consent (Ref: TLOROC13).

All monitoring will continue to be compliant with the monitoring requirements specified within the discharge consent.

The Trade Effluent Discharge Consent is provided in Annex H– Trade Effluent Discharge Consent.

6.4 Emissions to Land

There are no emissions to land from site operations, therefore no monitoring is required.

7. IMPACTS TO THE ENVIRONMENT

7.1 Impacts to Air

The site currently has no point source emissions to air and none will be added as part of this permit variation application.

To ensure any potential dust and litter emissions are controlled on site, a Dust and Litter Management Plan has been produced and is provided in Annex F – Dust and Litter Management Plan.

7.2 Impacts to Controlled Water

There are no impacts to controlled water as a result of this permit variation.

Emission Point W1 and W2 will remain as currently permitted.

7.3 Impacts to Sewer

There are no impacts to sewer as a result of this permit variation.

Emission Point S1 will remain as currently permitted.

7.4 Impacts to Land

There are no impacts to land as a result of this permit variation.

APPENDIX A

APPENDIX TITLE

Date