Caulmert Limited

Engineering, Environmental & Planning Consultancy Services

Knottingley Waste to Resource Facility

FCC Recycling (UK) Limited

Environmental Permit Variation Application

Process Description & BAT Review for RDF Preparation

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APPROVAL RECORD

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DISCLAIMER

Process Description & BAT Review for RDF Preparation

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5827-CAU-XX-XX-DR-V-1804 Permit Boundary Plan

1.0 INTRODUCTION

1.1 Application Context

1.1.1 FCC Recycling (UK) Limited ('the Operator' and wholly owned subsidiary of FCC Environment (UK) Limited) have appointed Caulmert Limited to prepare a bespoke environmental permit variation application for permit ref. EPR/JP3547JL to allow a number of additional activities at the Knottingley Waste to Resource Facility on Weeland Road, Knottingley, West Yorkshire, at postcode WF11 8DZ (hereafter referred to as 'the Site').

1.1.2 FCC Recycling (UK) Limited currently operates the Knottingley Waste to Resource Facility which undertakes the storage, transfer, treatment and recovery of predominately industrial wastes. The Site is located in Knottingley, occupying an area with a history of chemical processing, in particular coal tar and related products from the mid-Victorian era onwards. The Site is within a larger area previously occupied by coal tar processing activities (to the East and West) now a mix of industrial and low-grade agricultural land. The Bank Dole Cut and Lock (part of Aire and Calder Navigation canal) and the River Aire lies to the North, and the A645 to the South. Approximately 300m to the West, over the canal, lies an Industrial area including a glassworks beyond which are domestic properties.

1.1.3 It is proposed to add new activities to the permit for the Site which involve Refuse Derived Fuel (RDF) preparation, packaged waste processing, leachate and aqueous wastes treatment, physico-chemical treatment of aqueous and inorganic wastes (inc. solids and sludges), metals and inorganic salts recovery (inc. precipitation reactions), drying, and temporary storage of hazardous wastes.

1.1.4 In addition, a discharge point ('SW1') is being proposed which will be responsible for the discharge of RO permeate from the reverse osmosis filtration processes, combined with uncontaminated (clean) site surface water run-off to surface water (i.e., River Aire). It is proposed to retain the waste transfer station activity, storage of raw materials, use of existing gas or liquid-fuelled boilers (retain two of the previously three permitted boilers) and discharge of treated effluents to sewer already permitted. However, it is proposed to remove the distillation of solvents activities and waste list for Tank S13 currently permitted.

1.1.5 The Refuse Derived Fuel (RDF) Preparation will involve the processing of non-hazardous industrial wastes into RDF fuel for Energy from Waste (EfW) facilities or landfill, including shredding and storage.

1.2 Report Overview

1.2.1 This report provides a process description and Best Available Techniques (BAT) review of the proposed Refuse Derived Fuel (RDF) Preparation which involves the processing of non-hazardous industrial wastes into RDF fuel for Energy from Waste (EfW) facilities inc. shredding and storage.

1.2.2 This activity involves the below listed activities:

- *Section 5.4 A (1) (b) (ii) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving pre-treatment of waste for incineration or co-incineration.*

1.3 BAT Assessment

1.3.1 The above operations are assessed in line with the following BAT conclusions and guidance:

- '*Best Available Techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council*', from the Official Journal of the European Union [1];

- Environment Agency (EA) guidance *'Non-hazardous and inert waste: appropriate measures for permitted facilities'* published 12 July 2021 (last updated 1st August 2023) [2];

1.3.2 The technical standards for the proposed site operations against the relevant BAT Conclusions are detailed within this report, including a general process description for the treatment activities.

1.4 Additional Reports within this Permit Variation Application

1.4.1 The other activities proposed to be added to the permit as part of this permit variation have been assessed against the relevant BAT and appropriate measures in the following reports:

- 5827-CAU-XX-XX-RP-V-0307 – Process Description and BAT Review for the Physico-chemical and biological treatment of leachate and aqueous wastes;

- 5827-CAU-XX-XX-RP-V-0308 – Process Description and BAT Review for the physical and physico-chemical treatment of aqueous and inorganic wastes, solids and sludges.

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2018.208.01.0038.01.ENG&toc=OJ%3AL%3A2018%3A208%3ATOC
[2] https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities/1-when-appropriate-measures-apply

2.0 PROCESS DESCRIPTION

2.1 Waste Pre-acceptance and Waste Acceptance

2.1.1 Before any waste is accepted onto site, the site operator will complete a pre-acceptance assessment, which involves gathering information through an enquiry and a pre-acceptance evaluation.

2.1.2 Following this, a waste acceptance phase begins, where all wastes are pre-booked/booked into the site, weighed using the on-site weighbridge, and directed to the vehicle reception area. The site operatives scrutinise the necessary documents, at which point the vehicle is either accepted or the load will be rejected. In report ref. 5827-CAU-XX-XX-RP-V-0308, more details on waste pre-acceptance and waste acceptance procedure are presented as part of the permit variation application.

2.2 RDF Preparation

2.2.1 The Operator proposes to accept up to 300 tonnes per day of non-hazardous (household, commercial and industrial) wastes to produce Refuse Derived Fuel (RDF) within an enclosed building (labelled **Waste Processing 03** on the attached permit boundary plan (ref. 5827-CAU-XX-XX-DR-V-1804). Preparation will include receipt of pre-selected waste materials prior to sorting and shredding for recovery or reuse, with temporary storage of up to 400 tonnes.

2.2.2 The temporary storage of up to 400 tonnes non-hazardous wastes at any one time will be required and it is proposed to export the RDF off-site to energy from waste (EfW) facilities. The processing of non-hazardous wastes to produce RDF will involve the shredding/blending of non-hazardous wastes from on-site and incoming waste streams.

2.2.3 The building will have two segregated areas, one processing area housing the shredders and, a second receipt and storage area. The receipt and storage area will have four waste storage bays each with effective capacity of approx. 300 m^3 to reduce the risks associated with fire as detailed in the fire prevention plan ref. 5827-CAU-XX-XX-RP-V-0312. Each bay will hold up to 100 T of material.

2.2.4 Onsite packaged materials will be transported into the Waste Processing 03 building using a forklift truck access via the roller shutter door onto the shredder platform (the plinth) or the ramp to the North of the building. Only packaged wastes (e.g., combustible packaging wastes) arising from other on-site operations and incoming wastes from others sources (e.g., industrial, commercial, office wastes, etc.) brought onto site in containers, delivery vehicles, etc. will be processed in the Waste Processing 03 building with the shredder. Packaged materials will be loaded into the shredder using a forklift truck. The shredded materials will be collected on the concrete flooring at ground level in front of the plinth.

2.2.5 The shredded materials will be removed from this area using a loading shovel and placed into the designated storage bay prior to further processing or disposal off-site. The height of the pile within each storage bay will be as specified in the Fire Prevention Plan.

2.2.6 Depending on the composition of the shredded materials and available capacity, it may be loaded onto a vehicle for recovery (or disposal) as it is or may be blended, to improve characteristics or composition, with other similar materials arising from on-site activities or from external sources prior to recovery (see **Figure 1** for illustrative process flow).

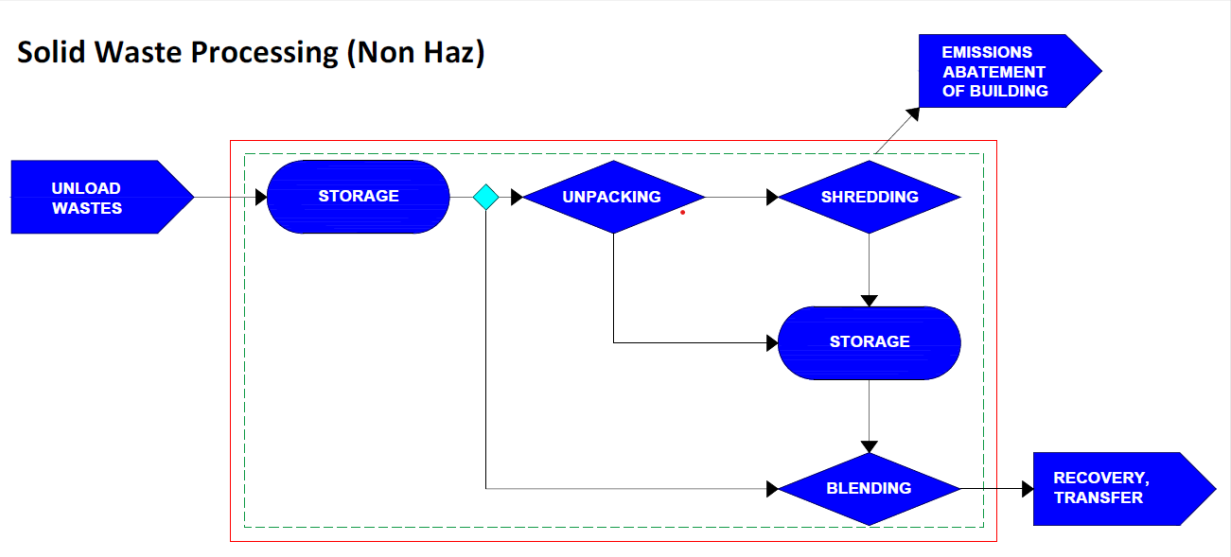

Figure 1: Simple Process Flow diagram illustrating Non-Hazardous Solid Waste Processing.

2.2.7 All processing undertaken will be within a fully enclosed building on impermeable concrete surface. While free liquids are expected to be minimal from the RDF activity under normal operations, the areas will be designed to allow containment and collection of liquids including, if necessary, fire water. The Waste Processing 03 building interior will be designed to retain approximately 100 m^3 of water aided by sleeping policeman located at the entrances, with the building's concrete side walls acting as a barrier to prevent water (e.g., fire water in the event of a fire) from escaping the building. Any water produced after dousing a fire will be contained by interceptors, pumped out and removed off-site by tanker for further treatment (in the case of firewater).

2.2.8 The building will have a fire suppression system which is capable of extinguishing fires within 4 hours.

2.2.9 The primary destination of the RDF is for energy recovery. Should this route not be available or suitable, the material may be transferred to an alternative treatment facility or, as a contingency, be disposed of to landfill, for example in periods of emergency shutdown.

2.2.10 A dust filtration and recirculating system will be used to remove dust, which will be complemented by an air extraction system (i.e., EP03 with NGR SE 51074 23822) that will pass through a carbon filter (with a particulate pre-filter component in it) for emissions control.

During processing, the roller shutter doors will be kept closed where possible to minimise noise and dust pollution.

3.0 WASTE STORAGE

3.1 Storage Arrangements

3.1.1 The proposed Waste Processing 03 building will have three operational waste bays for the storage of all waste to reduce the risks associated with fire. Each bay will have the following dimensions:

- Total Bay dimension - 10m wide x 10m long x 4m high push walls
- Effective bay waste capacity – approx. 300m^3
- Push walls – 4m high – reinforced concrete

3.1.2 Waste will be stored no higher than 3m high, providing a 1m freeboard above each waste pile, with the 3m level marked out on the bay wall.

3.1.3 The typical volumes to be accepted at the site may fluctuate depending on the season and quantities of waste received but will remain within the permitted limits.

3.1.4 There will be one 40-yard (approx. 31m^3) skip located inside the Waste Processing 03 building for non-conforming items/general litter which will only be used for non-hazardous incidental/litter wastes and not a specific storage area for incoming waste, therefore it will likely be empty most of the time. The skip will be placed on impermeable concrete flooring and will be at least 6m away from other combustible materials and able to be moved by mobile plant if required. A fire extinguisher will be situated adjacent to the skip as contingency in case of fire in it.

3.2 Managing Storage Times

3.2.1 Maximum storage times of all waste materials in the Waste Processing 03 Building will be minimised to prevent self-combustion. This will typically be within 7 days for all wastes to be handled and transferred for further processing on-site or off-site treatment.

3.2.2 As per the site's Integrated Management system (IMS) and waste acceptance procedures, all loads brought onto the site shall have the following information recorded at the weighbridge:

- Date and time of delivery.
- Name and address of waste producer.
- Description of waste types and quantity.
- Waste carrier registration number
- How the waste is contained.
- Carriers name and address.
- Driver's name, signature, and vehicle registration number (Vehicle size/type)
- Signature or initial of person(s) accepting/inspecting the waste.
- Additional handling details (e.g. notes made by the driver after inspecting the load).

- SIC code of the premises which produced the wastes (if relevant).
- Waste hierarchy declaration.
- Information on previous treatment of the waste e.g. manual or mechanical.

3.2.3 The above procedure will similarly be followed for any outgoing loads of combustible wastes. This monitoring of waste will allow the operator to track all material flow through the site to ensure that storage times are not exceeded.

3.2.4 All waste materials will be processed on a 'first-in, first-out' principle and should it be required, mobile plant can be used to rotate stock in waste storage bays where applicable. Typically, within waste bays whole waste loads will be moved in and out as one load in one go, so this generally removes the requirement for waste rotation etc. to prevent self-heating.

3.2.5 Extra measures to prevent self-combustion include:

- Concrete bays acting a fire-proof walls;
- Thermographic/Thermal Imaging Cameras automatically scanning the waste as part of the water cannon suppression system.

4.0 REVIEW AGAINST BAT CONCLUSIONS

4.1 Overview

4.1.1 This section (**Table 1**) assesses the RDF preparation operations against the relevant *'Best Available Techniques (BAT) Conclusions for Waste Treatment'*, under Directive 2010/75/EU of the European Parliament and of the Council' (2018).

4.1.2 In addition, Sector Guidance Note (SGN IPPC 5.06) 'Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste' has also been used as reference for this BAT review.

Table 1: Review Against BAT Conclusions

BAT Requirement	Compliance with the BAT Conclusions
Overall Environmental Performance	
BAT 1 Environmental Management System	• The site operates under an ISO 14001 accredited environmental management system (EMS); audits of the performance of key plants, and all maintenance will be carried out in compliance with the standard requirements and reviewed at the required frequency by senior management to demonstrate top management engagement with the management system and to drive continual improvement in its overall environmental performance. • The site's management system is audited externally as part of the ISO 9001 and ISO 14001 accreditation. It also operates and is audited against ISO 45001 and ISO 50001.
BAT 2 Site pre-acceptance and waste acceptance procedures, waste tracking and inventory, sorting of waste, waste compatibility, waste segregation and managing the quality of outputs.	<u>Pre-acceptance and Waste Acceptance procedures</u> • See Section 2 of the report ref. 5827-CAU-XX-XX-RP-V-0308 included within this permit application for details on pre-acceptance and waste acceptance procedures the operator has as part of its management system. <u>Waste tracking and inventory</u> • See Section 2 of the report ref. 5827-CAU-XX-XX-RP-V-0308 included within this permit application for details on this as part of the operator's management system. <u>Output Quality Management System</u> • Not applicable to the proposed RDF preparation operation as only solid wastes will be processed under this activity. <u>Ensure waste segregation</u> • Three waste storage bays each with an effective storage capacity of 300 m^3 will be provided for the segregation of non-hazardous wastes prior to, during and after processing. • See Section 2.0 of the report ref. 5827-CAU-XX-XX-RP-V-0308 included within this permit application for more details on how the operator segregates wastes. <u>Waste Compatibility</u> • Only waste types that are permitted for the proposed activities will be accepted onto site.

	• On-site verification, storage and control procedures will be undertaken to ensure that the materials accepted are consistent with the analysis and description supplied at the pre-characterisation stage. • More details have been provided in Section 2.0 of the report ref. 5827-CAU-XX-XX-RP-V-0308 included within this permit application. <u>Sorting of Incoming waste</u> • Pre-acceptance process will be undertaken to characterise wastes prior to acceptance. Outputs from RDF processing of non-hazardous industrial wastes is restricted to RDF fuel for Energy from Waste (EfW) facilities or landfill.
BAT 3 Inventory of waste gas and waste water streams.	• Proposed stack emission point for the Waste Processing 03 building will be equipped with appropriate air cleaning system. See **Appendix 2** of the report ref. 5827-CAU-XX-XX-RP-V-0308 for details of emission points and their corresponding grid reference. • There will be no point source emissions to water from the proposed RDF preparation activities.
BAT 4 Adequate storage at an optimised location. Separate storage for and handling of hazardous waste.	• No hazardous waste will be received in the Waste Processing 03 building for processing. Storage bays will be provided to allow good management of waste types. The Waste Processing 03 building is designed with adequate storage capacity. Wastes will be stored in an enclosed building to minimise emissions.
BAT 5 Safe handling, including management of spills and staff training.	• No liquid wastes or powders will be accepted for the proposed RDF operation. Staff trained regarding safe storage, appropriate wastes for treatment, proper control of sorting machinery, quality of output and environmental risks (e.g. understanding of dust management plan and fire prevention plan).
Monitoring	
BAT 6 and BAT 7 Monitoring of emissions to water	• Not applicable to RDF preparation and storage. No emissions to water. Activity undertaken in an enclosed building with sealed drainage and impermeable surfacing.
BAT 8 Monitoring of point source emissions to air.	• Proposed stack emission point for the Waste Processing 03 building will be equipped with appropriate air cleaning system. Refer to the document mentioned in BAT 3 above.
BAT 9 Monitor emissions from regeneration of spent solvents, treatment of solvents and use of solvents to decontaminate equipment containing POPs.	• Not applicable to RDF preparation. No waste solvents will be accepted. No POPs waste will be treated.

BAT 10 Periodic monitoring of odour emissions.	• Odour risk from the RDF preparation operation is addressed in the 'Environmental Risk Assessment' report ref. 5827-CAU-XX-XX-RP-V-0302 included within this permit application and considered a low risk to receptors if control measures are implemented. • Regular inspection and maintenance via routine inspections of equipment and ventilating systems, as well as implementing odour monitoring will be conducted by staff trained by Site Management. • Refer to the Odour Management plan report ref. 5827-CAU-XX-XX-RP-V-0310 included in this application for more details.
BAT 11 Monitor annual consumption of energy, raw material and water use.	• The Operator will keep Safety Data Sheets (SDS) for the types of reagents that will be used and will monitor the quantity of materials used, including the volume of waste produced. This will provide data for regular reviews of raw materials usage. All product documentation will be checked against the order prior to acceptance.
Emissions to air	
BAT 12 Odour Management Plan in place.	• An Odour Management Plan ref. 5827-CAU-XX-XX-RP-V-0310 has been prepared and is submitted as part of this application.
BAT 13 Reduce odour by limiting residence times, using chemical treatment and optimising aerobic treatment.	• Aerobic treatment is not applicable to the RDF operation. Chemicals will not be used as these may add to emissions and can mask rather than treat the odour. Residence times for all incoming waste for RDF processing are limited to 7 days.
BAT 14 Minimise sources of potential diffuse emissions e.g. dust by minimising sources of emissions, using good quality well maintained plant, damping down where needed, cleaning waste storage areas, having a leak detection and repair (LDAR) programme	<u>Minimising the number of potential diffuse emission sources</u> • Dust filtration and recirculating system will be used to remove dust, which will be complemented by an air extraction system that will pass through a carbon filter (with a particulate pre-filter component in it) for emissions control. • Speed limit is in place at the site to control traffic and dust generation, including speed ramps to enforce speed limit. Dust created due to vehicular movements around site will be dampened with water where required. Site roads and storage areas will be swept as necessary to prevent a build-up of dust. • Drop height of materials being shredded will be limited to prevent dust creation. <u>Containment, collection and treatment of diffuse emissions</u> • The storage, treatment and handling of wastes for RDF preparation will be in an enclosed building, hence minimising VOCs emissions to air. This building will be maintained under negative pressure. See **Appendix 4**

	of the report ref. 5827-CAU-XX-XX-0308 for the summary document providing justification for the identification and selection of emission control equipment and how it meets BAT. • Dust filtration and recirculating system will be used to remove dust, which will be complemented by an air extraction system that will pass through a carbon filter (with a particulate pre-filter component in it) for emissions control. <u>Maintenance</u> • Plants will be maintained following the manufacturer's recommendations. Emissions of particulates will be controlled in accordance with Site management procedures (see BAT 10 response for reference). <u>Cleaning of waste treatment and storage areas</u> • Housekeeping measures (e.g., closing doors, windows, cleaning, etc) will be adopted. • Good housekeeping, cleaning and maintenance of the site and mobile plant and equipment will prevent dust build-up. Visual daily site checks will be completed to monitor any dust, debris or waste accumulation, plant exhausts or hot surfaces and will be cleaned immediately. A daily site check by trained site staff will inspect for any build-up or accumulation of dust or debris and remedial actions carried out as appropriate and recorded on FCC's EcoOnline database. • Waste treatment and storage areas will be swept as necessary to prevent a build-up of dust. <u>Leak detection and repair (LDAR) programme</u> • Due to the type of waste accepted for RDF preparation and control measures proposed, LDAR is not applicable.
BAT 15 and BAT 16	• Not applicable to the RDF operation. This waste treatment does not generate flammable gas.
Noise and Vibrations	
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.	• Noise and vibrations assessed in the 'Environmental Risk Assessment' document ref. 5827-CAU-XX-XX-RP-V-0302, indicates that noise and vibration impacts from the RDF operation poses a low impact to sensitive receptors if control measures are implemented. • See 'Noise Management Plan document ref. 5827-CAU-XX-XX-RP-V-0311' also included within this permit application for more details. • Noise levels will be a consideration in purchasing new equipment with quieter models used where cost effective.

	• RDF operations will take place inside a building, further attenuating noise.
BAT 18 Reduce noise by one, or a combination of appropriate location, proper operation and maintenance of plant, low noise equipment, noise attenuation.	• The building will provide some attenuation. Doors will be kept closed. Plant will be operated by trained staff and maintained in line with the manufacturer's recommendations. Noise levels will be a consideration in purchasing new equipment with quieter models used where cost effective.
Emissions to Water	
BAT 19 Manage water effectively by managing water use, recirculating water where appropriate, reducing the chance of overflows, roofing waste storage areas, impermeable surfacing and adequate drainage.	• The quantities of water required will be relatively small and restricted to the washing of plant and storage areas if required. • All waste will be stored and treated in the building limiting contaminated run-off from the waste. The interior of the Waste Processing 03 building will be designed to retain water, aided by the sleeping policeman located at the entrances to hold water in the event of a fire, and the concrete side walls of the building will act as a barrier to prevent overflows. Also, the external part and roof of the Waste Processing 03 building will be connected to the site-wide drainage system, including all hardstanding areas where water will be directed to a series interceptors via a sealed drainage and pumped into a Sustainable Urban Drainage System (SUDS) preventing any spillage or potentially polluting liquids/firewater from leaving the installation. Surfaces waters will undergo appropriate treatment prior to discharge off site • All waste storage and treatment areas will have impermeable pavement.
BAT 20 treatment of wastewater	• Not applicable to RDF processing.
Emissions from accidents and incidents	
BAT 21 Limit emissions from incidents by protecting plant from malevolent acts, effective controls, prevention of fire, incident management plan, logging incidents and reviewing.	• A Fire Prevention Plan ref. 5827-CAU-XX-XX-RP-V-0312 has been developed for the Waste Processing 03 building, which incorporates the management of firewater and is included within this permit application. There will be safe means to isolate plant in the event of an incident. Site security in place, including fencing around the site and lockable door on the building, all incidents and near misses logged and reviewed on a regular basis for lessons learned. • The company's Integrated Management System (IMS) will include an 'Accident Management Plan' for the proposed RDF activity, with written procedures for handling, investigating, communicating and reporting environmental complaints and implementation of appropriate actions.

	• See **Appendix 4** of the report ref. 5827-CAU-XX-XX-RP-V-0305 for details on accident management procedures.
Material Efficiency	
BAT 22 Reduce raw material use by substituting waste.	• Not applicable to RDF preparation. Raw materials limited to those necessary for proper operation of site plant and use of waste is not appropriate.
Energy Efficiency	
BAT 23 Energy balance and energy efficiency plan	• Good housekeeping measures, including maintenance and operational procedures, will be in place for all areas to cushion machinery(ies) breakdown that can impact the environment or compromise the operator's ability to undertake operations/activities. A planned preventive maintenance (PPM) programme will cover all equipment significantly impacting the plant's energy consumption or energy conservation. Where applicable, automated equipment monitoring, including auto shut-off, will be used to minimise unnecessary run time. • Appropriate training of staff and monitoring will be undertaken to ensure the obligations under ISO 50001 are met. Energy consumption information will be collated and reported in accordance with the existing permit, as well as the requirement of the ISO 50001 standard in place at the site.
Reuse of Packaging	
BAT 24 Reuse of packaging	• This is not applicable to the RDF activities. However, the Site will give due consideration to the Waste Hierarchy prior to recovery or disposal.
General BAT Conclusion for the mechanical treatment of wastes	
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 given.	Not applicable to the RDF operation.
BAT Conclusions for the mechanical treatment in shredders of metal waste	
BAT 26, BAT 27 and BAT 28	Not applicable to RDF preparation.

BAT Conclusions for the treatment of WEE containing VFCs and/or VHCs	
BAT 29 and BAT 30	Not applicable to RDF preparation.
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 given.	• The storage, treatment and handling of wastes for RDF preparation will be in an enclosed building, hence minimising emissions to air. This building will be maintained under negative pressure. Also, dust filtration, recirculating and air extraction system that will pass through a carbon filter (with a particulate pre-filter component in it) for emissions control.
BAT Conclusions for the mechanical treatment of WEEE containing mercury	
BAT 32 applicable to treatment of WEEE	Not applicable to RDF preparation.
BAT Conclusions for the biological treatment of waste	
BAT 33, BAT 34, and BAT 35	Not applicable to RDF preparation as it is not a type of biological treatment.
BAT Conclusions for the aerobic treatment of waste	
BAT 36 and BAT 37	Not applicable to RDF preparation
BAT Conclusions for the anaerobic treatment of waste	
BAT 38	Not applicable to RDF preparation.
BAT Conclusions for the mechanical biological treatment (BMT) of waste	
BAT 39	Not applicable to RDF preparation.
BAT Conclusions for the physico-chemical treatment of solid and/or pasty waste	
BAT 40 and BAT 41	Not applicable to RDF preparation
BAT Conclusions for the re-refining of waste oil	
BAT 42, BAT 43, and BAT 44	Not applicable to RDF preparation.
BAT Conclusions for the physico-chemical treatment of waste with a calorific value	
BAT 45	Not applicable to RDF preparation.
BAT conclusions for the regeneration of spent solvents	

BAT 46 and BAT 47	Not applicable to RDF preparation.
BAT Conclusions for the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil	
BAT 48 and BAT 49	Not applicable to RDF preparation.
BAT Conclusions for the water washing of excavated contaminated soil	
BAT 50	Not applicable to RDF preparation.
BAT Conclusions for the decontamination of equipment containing PCB's	
BAT 51	Not applicable to RDF preparation.
BAT Conclusions for the treatment of waste-based liquid waste	
BAT 52, and BAT 53	Not applicable to RDF preparation. Only solid wastes will be treated.

DRAWINGS

5827-CAU-XX-XX-DR-V-1804 Permit Boundary Plan

RIVER AIRE

DISCHARGE

STOCKING LANE

TRUNDLES LANE

Surface Water Storage

Waste Processing 07

INT 01

EP07

P07-ZP-01

Sewer Connection

Effluent

Waste Processing 02

EP02

P02-ZP-01

Waste Storage 02
(packaged only)

S02-ZS-01

General Storage 01

GS1-OS-01

General Storage 02

GS1-ZS-02

Packaged
Waste
Offloading
Area

Tanker
Holding
Area

Waste Processing 06

INT 02

EP26

EP06

EP16

P06-ZP-11

P06-ZP-21

P06-ZP-31

Surface Water Storage

INT 03

Waste Processing 03

EP03

P03-ZP-01

Waste Storage 01

S01-OS-01

Reception
Area

EP05

Diesel

EP11 EP01

Waste Processing 01

P01-ZP-01

Weighbridge

Waste Processing 05

P05-ZP-01

EP08

B01-ZP-01

EP18

B01-ZP-02

Boiler Complex

FIRE TANK

SUB

SUB

PUMP HOUSE

MANOEUVRING

YE Equipment
Transformer

Switchroom

Weighbridge

Switchroom
Transformer
YE Equipment

Offices and Labs

EP14

EP24

EP04

INT 04

P04-ZP-01

WEELAND ROAD

Gas Main

Water Main

Waste Processing 04

Water Main

NOTES

1. DO NOT SCALE FROM THIS DRAWING, WORK FROM FIGURED DIMENSIONS ONLY. ALL DIMENSIONS ARE IN METRES AND ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.

2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALIST DRAWINGS AND SPECIFICATIONS.

LEGEND

- OWNERSHIP BOUNDARY
- PERMIT BOUNDARY
- H — HYDRANT

REV	MODIFICATIONS	BY	RE	AP	DATE
P03	LEGEND AMENDED	EJD	JC	AS	06.08.25
P02	HYDRANTS ADDED TO DRAWING	EJD	JC	AS	28.07.25
P01	ISSUED FOR INFORMATION	EJD	JC	AS	10.07.25

CLIENT: FCC Environment

PROJECT: KNOTTINGLEY WASTE TO RESOURCE FACILITY

TITLE: PERMIT BOUNDARY PLAN

PURPOSE OF ISSUE			STATUS
FOR INFORMATION			S2
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