



U M B R E L L A
ENVIRONMENTAL
PROTECTING YOUR BUSINESS

Non-Technical Summary

Umbrella Environmental
9 Goldington Road
Bedford
MK40 3JY
Company Number:
13446157

Website: www.umbrella-environmental.co.uk
Email: andrew@umbrellaenvironmental.co.uk
Mob: 07498 671713



CIWM

Affiliated Organisation 2022

Together, we stand for a world beyond waste

Site Address:

Rock Solid Processing Limited

Bromborough

South Dock

CH62 4RY



Registered Office:

Unit 3 Grampound Road Industrial Units

The Square

Grampound Road

Cornwall

England

TR2 4DS

Application Reference:

EPR/HP3444QP

Document Reference:

016.1_05_001

Issue Date:

20/07/2023

Document Control

Document Title	Reference	Client	Status
Non-Technical Summary	016.1_05_001	Rock Solid Processing Limited	FINAL

Document History

Version	Issue date	Author	Checked	Description
D1	24/10/2022	AIL	AIL	Drafted for bespoke installation application pack, Client review.
D2	17/11/2022	AIL	AIL	Amendments requested by client.
V1	30/11/2022	AIL	AIL	Approved by client for submission to Environment Agency (EA).
V2	20/07/2023	AIL	AIL	Following further enhanced pre app advice from the EA further amendments to the activities table to be more reflective of the application.

CONTENTS

1	Introduction.....	5
1.1	Site Location.....	5
2	Application.....	7
3	Permitted Operations	9
3.1	Waste Acceptance.....	10
3.2	Waste Storage.....	10
3.3	Blending Activity	11
3.4	Waste Handling and Processing.....	12
3.5	Site Management	13
4	Technical Standards.....	15
5	Risk Assessment and Management.....	16
5.1	Fire Prevention Plan (FPP).....	16

Tables

Table 1 Permitted Activities..... 9

Table 2 Total Annual Waste Types 10

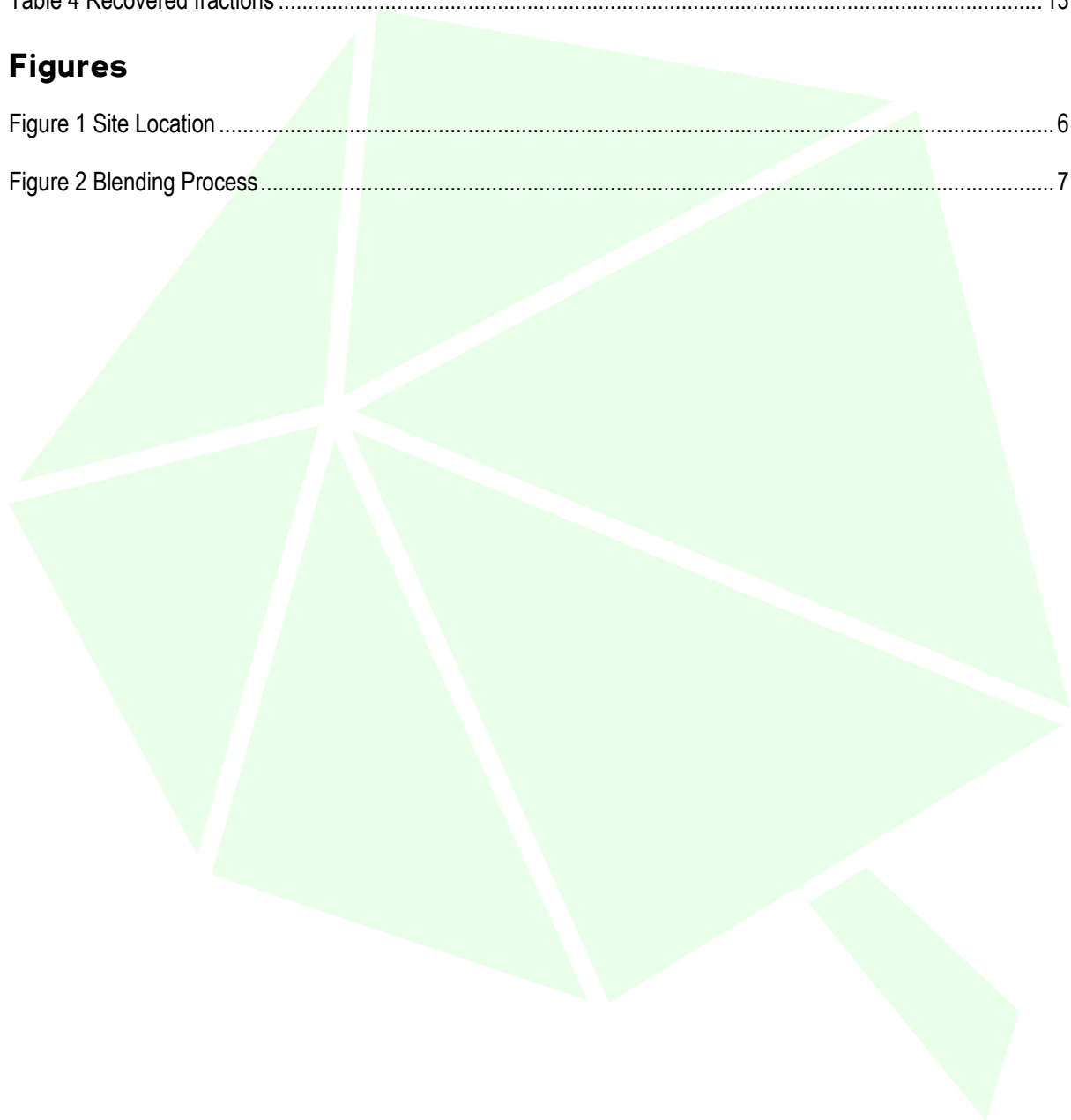
Table 3 Storage methods on site 11

Table 4 Recovered fractions 13

Figures

Figure 1 Site Location 6

Figure 2 Blending Process 7



1 Introduction

This Non-Technical Summary (NTS) accompanies the application for a bespoke waste installation by Umbrella Environmental Limited on behalf of Rock Solid Processing Limited EPR/HP3444QP at Bromborough South Dock CH62 4RY. The site location is shown in Figure 1 Site Location.

Rock Solid are contracted to reprocess the IBA arising from the Energy from Waste (EFW) plant at Protos, Grinsome Road, Chester CH2 4RB, Ince and Dublin Waste to Energy Facility, Pigeon House Road, Dublin 4. Eircode: DO4 N2 P2. Rock Solid already hold a number of contracts of this type across the UK for the reprocessing of Incinerator Bottom Ash (IBA) to produce IBA aggregate (IBAA) and the recovery of ferrous and non-ferrous metals. The resultant products are suitable for use as recycled aggregates in place of virgin materials in unbound and bound applications. Rock Solid Processing Limited's parent company Rock Solid B.V. also have many years' extensive experience of reprocessing IBA and the production of resultant IBA aggregates in the Netherlands.

This will enable the site to divert waste from landfill, the avoidance of virgin material when a waste/secondary aggregate can be used.

Waste that arrives via site from Ireland to dock side is unloaded via bucket loader deposited in to a trailer and is subsequently transported to the site (approx.. 200 m) for sorting and blending meaning the offload/handling of the IBA from the cargo ship onto the trailer is apart of the overall transportation of the ship and the transfer of waste (change of legal ownership) does not happen until it is tipped in the permitted area, All activities waste activities will occur within the permit boundary. This document summarises the application for a bespoke waste installations permit allowing for IBA to be accepted, stored and treated. With some appropriate IBAA material to be blended and used under a regulatory position statement.

1.1 Site Location

The site is approximately 40174 m² and is located at Bromborough South Dock CH62 4RY.

The National Grid Reference (NGR) is SJ 34947 84720, Eastings and Northings 334947 , 384720 and What Three Words location, ladder.values.thick.

The wider industrial area is accessed by the A 41 and New Chester road located to the west of the site, with the site itself accessed by Dock road. The site is bounded to the north west by the Dibbinsdale Brook and Port Sunlight River Park, while to the north east by Mersey Wharf and the River Mersey. The south east boundary is bounded by warehouses operated by Mersey Wharf. The south west boundary is formed by Dock Road South.

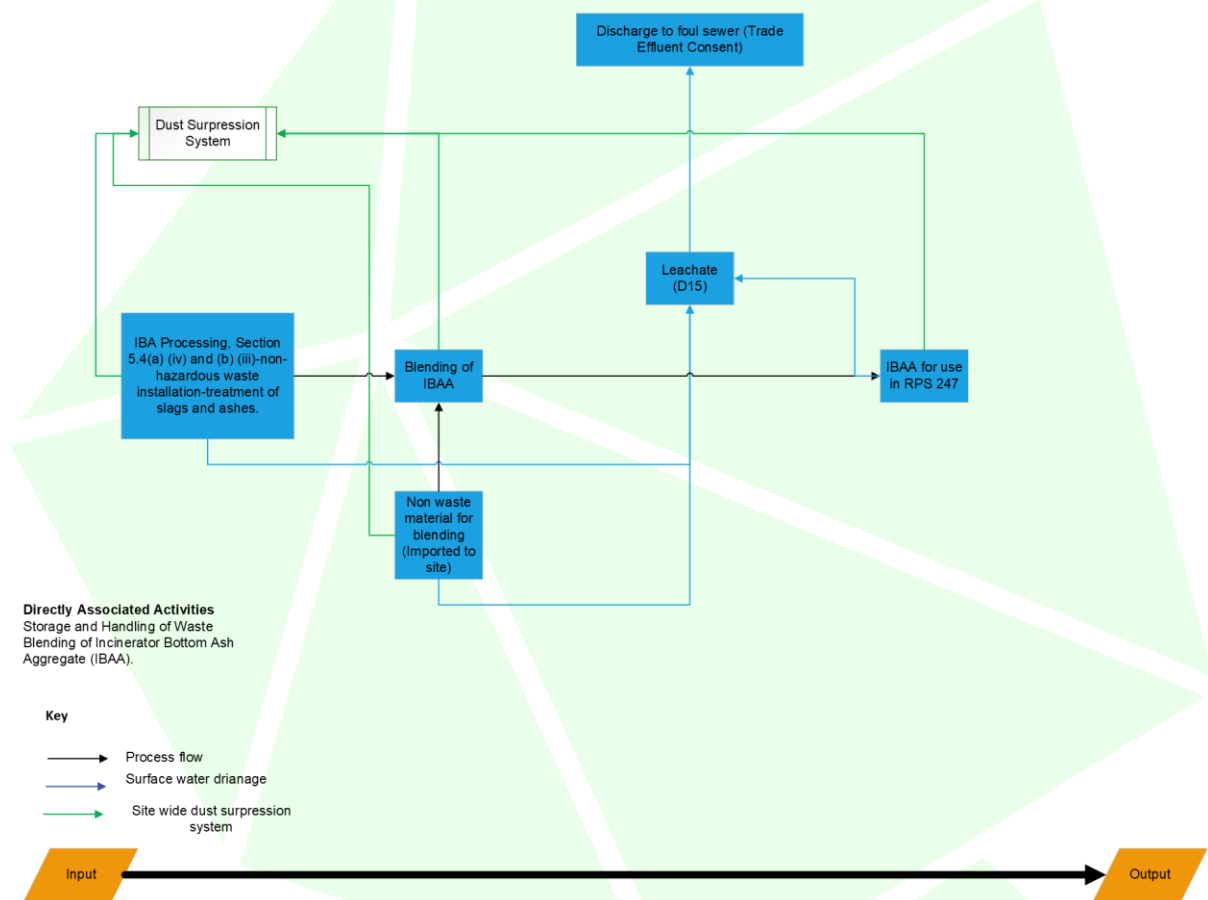
Figure 1 Site Location



2 Application

The regulated facility will permit the annual acceptance, storage and processing of up to 240,000 tonnes of non-hazardous incinerator bottom ash (IBA) per year. The IBA will be the sole waste streams permitted for acceptance at the site. Other aggregate material will be accepted at site to blend with the processed Incinerator Bottom Ash Aggregate (IBAA) to produce an aggregate to be used in construction. This material is a non waste aggregate, the process is as below.

Figure 2 Blending Process



The only waste to be accepted for the IBAA produced by Rock Solid is IBA from Energy from Waste (EfW) facilities burning municipal and commercial waste. Waste will arrive by road from Protos (Ince) 140,000 tonnes p.a. This material has been proved to be non-hazardous under the Environmental Services Association (ESA) "A Sampling and Testing Protocol to Assess the Status of Incinerator Bottom Ash" (ESA Protocol). The remaining 120,000 tonnes p.a will arrive by boat from Dublin. This material is pending ESA protocol status, If material does not achieve ESA status it will be rejected from site.

The IBA and IBAA is classified in the List of Waste (LoW) with the following code:

- 19 12 12 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

- 19 01 12 (bottom ash and slag other than those containing hazardous substances).

19 12 12 codes waste will be limited to waste arising from an incineration process, via the Environmental Management System (EMS) 016.1_05_002.

IBAA material appropriate for blending will be mixed with other aggregates to produce a waste material to be used under a regulatory position statement (RPS) 247. It enables the use of unbound incinerator bottom ash.

“This regulatory position statement (RPS) applies if you use unbound municipal incinerator bottom ash aggregate (IBAA) in certain construction activities. It also covers storage of IBAA in relation to its use.”

3 Permitted Operations

Table 1 Permitted Activities

Schedule 1- Environmental Permitting Regulations		Limits of specified activity and waste types
Section 5.4 A1 (b) (iii) non-hazardous waste installation – treatment of slags and ashes.	R4: Recycling/reclamation of metals and metal compounds R5: Recycling/reclamation of other inorganic materials.	From receipt of permitted waste through to treatment and recovery of by-products (incinerator bottom ash aggregate). Treatment of incinerator bottom ash consisting of crushing, separation and screening shall be carried out in an enclosed building and on an impermeable surface with a sealed drainage.
Section 5.4 A1 (a) ii Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico-chemical treatment	D9 - Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12	Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico-chemical treatment Treatment of leachate on site prior to discharge to local foul water system under a trade effluent consent.
Waste Operation		
Blending of IBA and materials to produce an aggregate.	R5: Recycling/reclamation of other inorganic materials. R3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	IBAA, Blended with non waste aggregate imported to site to be used under RPS 247 Using unbound incinerator bottom ash aggregate (IBAA) in construction activities.
Raw material storage	Storage of raw materials.	Non waste aggregate stored on site in discreet piles in main storage areas.
Directly Associated Activity		
Storage and handling of waste	R13: Storage of waste pending the operations numbered R5 (excluding temporary storage, pending collection, on the site where it is produced).	From receipt of waste to dispatch off-site for recovery. Temporary storage of waste. Storage of incinerator bottom ash on impermeable surface with sealed drainage system prior to treatment in enclosed building and externally. Storage of processed incinerator bottom ash aggregate on impermeable surface with sealed drainage system.

		Storage of ferrous/non-ferrous metals arising from the treatment of incinerator bottom ash, on impermeable surface with sealed drainage system.
Storage of residual waste	R13: Storage of waste pending the operations numbered R5 (excluding temporary storage, pending collection, on the site where it is produced). D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced).	Residual waste to be removed from site.
Fuel Storage/chemical Storage	Diesel Hydraulic Oils Lubricating Oils	5000 litres 10 drums up to 205 litre per drum. 10 drums 205 litre per drum.
Raw material storage	Storage of raw materials.	Non waste aggregate stored on site in discreet piles in main storage areas.

3.1 Waste Acceptance

Waste accepted at the site is restricted to that described in the List of Wastes, Section 08, 016.1_05_009 of this application pack.

As a minimum, the waste acceptance procedure will include.

- address/location
- identity of the producer
- the physical appearance of the waste
- amount of waste being accepted
- identifiable EWC Code

Site will only accept waste that is permitted and complies. Non-conforming wastes will be rejected or if identified after delivery, isolated and returned to producer.

Incoming waste will be brought to the site by registered waste carriers. Each load would be subject to the waste acceptance procedure and would be inspected by the Technically Competent Manager (TCM) or appropriately trained individual prior to being stored and prior to treatment.

3.2 Waste Storage

Table 2 Total Annual Waste Types

EWC	Material	Tonnes p.a.
19 01 12 (Protos, Ince)	IBA/Mechanically treated material	Up to 120,000
19 01 12 (Dublin)		Up to 120,000
Total		240,000

3.3 Blending Activity

Up to 50,000 tonne per annum of raw not waste aggregate may be imported to site to blend with IBAA to produce a material to a clients specification for use as a waste most notably RPS 247. If required all IBAA produced on site may be blended making the activity a directly associated activity as per Table 1 Permitted Activities.

Table 3 Storage methods on site

Containment Type	Material Stored	Storage Capacity (tonnes)	Secondary containment arrangements	Fate of drainage serving the storage area
40yd RoRo skips	Ferrous metal fractions	9	Located within bunded area	Sealed drainage system to leachate treatment plant
40yd RoRo skips	Non-ferrous metal fractions	27		
Metal Storage Bays x 2	Non-ferrous metal fractions, stainless steel and copper mix	36		
Bay	Unburnt IBA material to be returned to EfW	18.4		

Containment Type	Material Stored	Storage Capacity (tonnes)	Secondary containment arrangements	Fate of drainage serving the storage area
Bunded, lined storage area with sealed drainage system	IBA (Storage Area 1,2,3 & 4)	up to 39,286 across all bays		
Bunded, lined storage area with sealed drainage system	IBA/IBAA/ Non waste Aggregate(Storage area 5)	up to 10,528		
Bunded, lined storage area with sealed drainage system	IBA/IBAA/Non waste Aggregate 6	up to 10,528		
Bunded, lined storage area with sealed drainage system	IBAA/Non Waste Aggregates (Storage area 7)	Up to 201,540		
IBAA	External Bays	63		

3.4 Waste Handling and Processing

The process capacity is up to 1,350 tonnes/day of IBA, up to 240,000 tonnes/year. Site operations are split, vehicles movements between 06:00-18:00 and processing 06:00-22:00 Monday to Friday. Saturday operations 06:00-14:00.

The mechanical treatment comprises of the processing of the IBA through a series of sorting mechanisms, including manual picking, crushing, screens, eddy currents and magnetic metal separators. The resultant fractions are different grades of IBAA,graded subject to client requirements, and ferrous and non-ferrous metals, all of which are recovered as secondary aggregate or recycled metals. A small fraction of 'unburnt' material is also removed from the IBA and returned to the EfW for re- incineration.

All stockpiling and treatment activities will be undertaken on an impermeable surface with a sealed drainage system. All treatment activities will be internal. All site run off except roof water and access road runoff will be directed to a leachate treatment plant with a treatment capacity of 40 m³/hour, a collection sump of 50 m³ and a storm attenuation of 3,137 m³ (6 hours) which accounts for a 35 % climate change buffer and an a 1 in 100 year storm duration of 6 hours.

Roof water and access road water will be removed uncontaminated from site via rainwater downpipes and an underground pipe network, attenuation tanks and then discharged to the existing united utility surface water located to the east of the site.

Processed aggregates and metals will be stockpiled in designated areas or bays awaiting removal from site to appropriate and approved off takers for recovery and recycling.

A process flow diagram can be found in Figure 2 of document 016.1_05_004Technical and BAT Assessment in Section 09 of the application pack.

Table 4 Recovered fractions

Recovered Fraction	Approx. Percentage	Approx. Annual Tonnage
Metals (ferrous and non- ferrous)	9.5%	24,700
IBAA	90%	234,000
Unburnt material (recovered back to the originating EfW facility)	0.5%	1,300

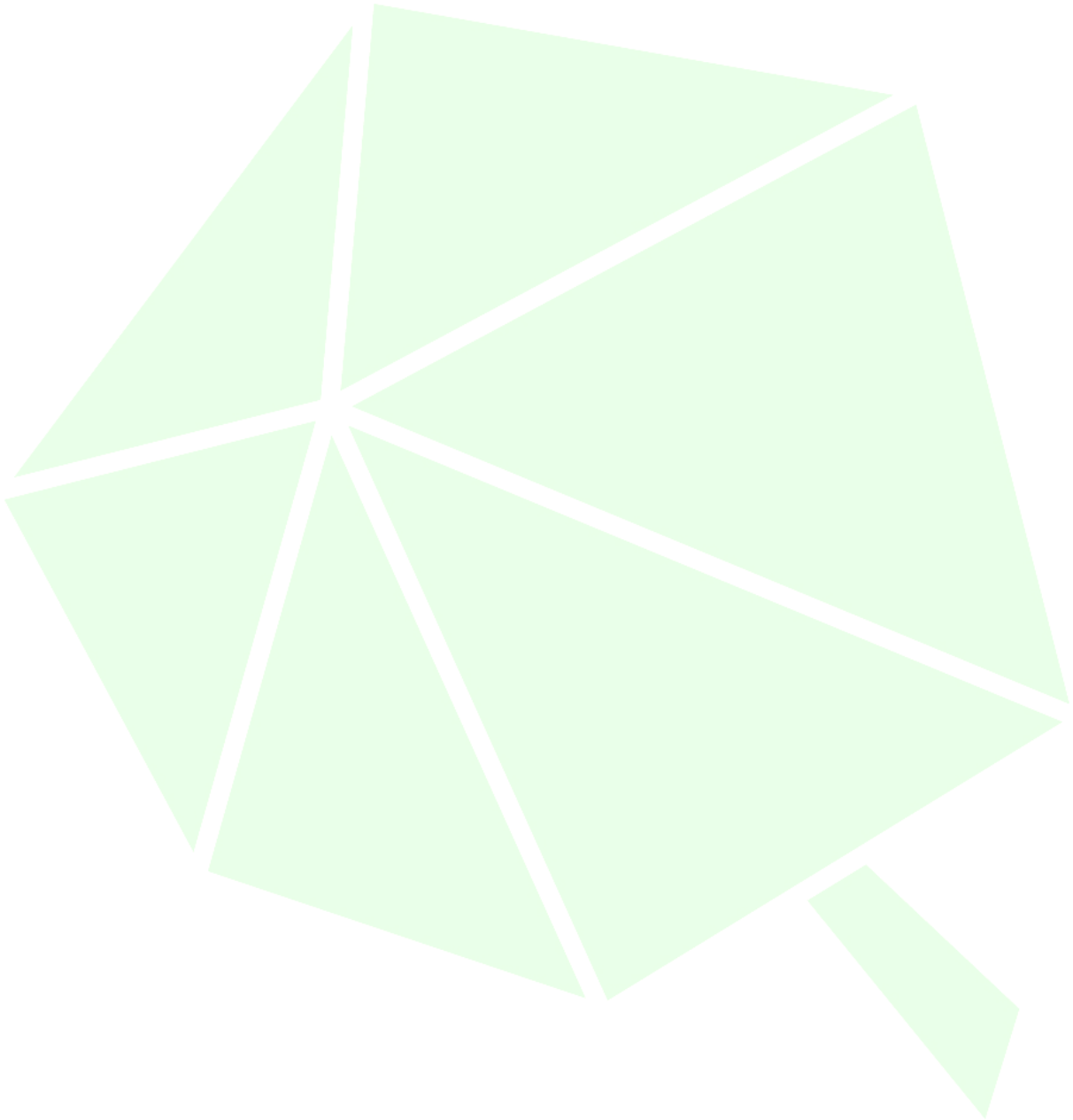
3.5 Site Management

A Technically Competent Manager (TCM) manages the operation and attends site in compliance with the regulatory defined attendance requirement. Individuals such as site supervisors or yard managers can be trained to carry out ongoing site operations, office and plant operations in lieu of the TCM when not in attendance.

During hours of operation there will be a minimum of one member of staff on site, who will be fully conversant with the requirements of the Environmental Permit and the Environmental Management System regarding the following:

- waste acceptance and control procedures
- operational controls and environmental monitoring
- maintenance
- record keeping

- emergency action plans
- Fugitive Emissions



4 Technical Standards

The following technical standards have been utilised in the design and development of the proposed activities, the preparation of this Environmental Permit application, and will govern permitted site activities:

- Noise and vibration management: environmental permits¹
- Develop a management system: environmental permits.²
- Integrated Pollution Prevention and Control Reference Document on Best Available Techniques on Emissions from Storage July 2006
- Control and monitor emissions for your environmental permit³
- Containment systems for the prevention of pollution (C736)⁴
- Best Available Techniques (BAT) Reference Document for Waste Treatment Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control); EUR 29362 EN; Publication Office of the European Union, Luxembourg, 2018
- Best Available Techniques (BAT) Reference Document for Waste Incineration; EUR 29971 EN; Publication Office of the European Union, Luxembourg, 2019

As an 'installation' under the Industrial Emissions Directive the permitted site must achieve 'BAT'. Best Available Techniques (BAT) means the available techniques which are the best for preventing or minimising emissions and impacts on the environment. Techniques include both technology used and the way the installation is designed, built, maintained, operated and ultimately decommissioned.

¹ <https://www.gov.uk/government/publications/noise-and-vibration-management-environmental-permits/noise-and-vibration-management-environmental-permits>

² <https://www.gov.uk/guidance/develop-a-management-system-environmental-permits>

³ <https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit>

⁴ <https://www.ciria.org/>

5 Risk Assessment and Management

An Environmental Risk Assessment (ERA) (016.1_05_003) is located in section 07 of this application pack. The ERA identifies the sites setting, environmental hazards caused by the waste activity and the operators mitigation methods whether than be hard engineering or managerial procedures. This mitigation is designed to protect the environment from fugitive emissions or point source emissions if stated. Written in accordance with Environment Agency online guidance 'Risk assessment for your environmental permit' (www.gov.uk⁵; 31 August 2022).

The site is operated by Rock Solid Processing Limited An Environmental Management System (EMS) has been created detailing the sites operations and any environmental controls. To the requirements of Environment Agency online guidance 'Develop a management system: environmental permit' (www.gov.uk⁶; 31 August 2022) and other relevant guidance has been developed to reflect and control site operations and forms one part of a wider Environmental Management System to the requirements of ISO 14001 Environmental Management Systems maintained by the operator. The ISO 14001 management system defines operational and maintenance procedures and details requirements in the event of an accident or incident.

5.1 Fire Prevention Plan (FPP)

A fire prevention plan has been requested by the EA during the duly making stage of the application process as the fraction of unburnt material totalling 0.5% of waste material received at site is returned to an Energy From Waste site for further forced incineration.

⁵ <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit#how-to-do-a-risk-assessment>

⁶ <https://www.gov.uk/guidance/develop-a-management-system-environmental-permits>



UMBRELLA ENVIRONMENTAL

PROTECTING YOUR BUSINESS

9 Goldington Road Bedford MK40 3JY

www.umbrella-environmental.co.uk

andrew@umbrellaenvironmental.co.uk

Mob: 07498 671713