

BRIDGNORTH WEEE PROCESSING PLANT

Environmental Risk Assessment

Prepared for: Circular Resources (UK) Ltd
Client Ref: 10377

SLR Ref: 416.10377.00001
Version No: 1
February 2022



BASIS OF REPORT

This document has been prepared by SLR with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with Circular Resources (UK) Ltd (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

CONTENTS

1.0 INTRODUCTION	1
1.1 Report Context.....	1
2.0 CONSIDERATION OF RISKS	2
3.0 SITE SETTING AND RECEPTORS	3
3.1 Site Setting	3
3.1.1 Industrial and Commercial.....	4
3.1.2 Local Transport Network.....	4
3.1.3 Surface Water Features	4
3.1.4 Woodland.....	4
3.1.5 Agricultural Land.....	4
3.1.6 Residential.....	4
3.2 Geology, Hydrogeology and Hydrology.....	4
3.2.1 Geology	4
3.2.2 Hydrogeology.....	4
3.2.3 Hydrology.....	5
3.3 Ecology.....	6
3.3.1 Internationally Designated Sites	6
3.3.2 Nationally/Locally Designated Sites.....	6
3.4 Cultural Heritage	6
3.5 Identified Receptors.....	6
3.6 Windrose.....	7
4.0 ENVIRONMENTAL RISK ASSESSMENT	8
5.0 CONCLUSION.....	25

DOCUMENT REFERENCES

TABLES

Table 1 Immediate Land Uses Surrounding the Site	3
Table 2 Identified Receptors	7
Table 3 Odour Risk Assessment and Management Plan	9
Table 4 Fugitive Emissions Risk Assessment and Management Plan.....	12
Table 5 Accidents Risk Assessment and Management Plan.....	19

FIGURES

Figure 1 Flood Zones within the Site boundary.....	5
Figure 2 Shawbury Meteorological Station Windrose (2016-2020).....	8

DRAWINGS

Drawing 001 Site Location
Drawing 002 Environment Permit Boundary
Drawing 003 Site Layout Plan

1.0 INTRODUCTION

SLR Consulting Limited (SLR) has been instructed by Circular Resources (UK) Limited (CRUK) to prepare a small waste incineration permit application for the Bridgnorth WEEE Processing Plant, Stanmore Industrial Estate, Bridgnorth, Shropshire, WV15 5HP, hereafter referred to as 'the Site'.

The Environmental Permitting (England and Wales) Regulations (EPR) 2016 (as amended) require regulated facilities to be operated in accordance with an environmental permit (EP). Regulated facilities include 'installations' as listed in Schedule 1 of the EPR.

CRUK is applying to obtain an EP to enable them to undertake the following installation activity listed in Schedule 13A of the EPR 2016:

- Schedule 13, 1(a) – small waste incineration plant.

A small waste incineration plant is defined in the EPR as an incineration or co-incineration plant with a capacity less than the limits specified in chapter 2 of the Industrial Emissions Directive (IED), i.e. a processing capacity of:

- hazardous waste – less than 10 tonnes per day; and
- non-hazardous waste – less than 3 tonnes per hour (equivalent to 72 tonnes per day).

The Site will process Waste Electrical and Electronic Equipment (WEEE) that may contain hazardous components as defined by the WEEE Regulations.

This Environmental Risk Assessment (ERA) is a simple assessment of the risks to the environment and human health from accidents, odour, noise and fugitive emissions that may be associated with waste operations at the facility.

1.1 Report Context

This ERA is an assessment of the potential risk to the environment and to human health that may be associated with the proposed operations at the Site. The document will describe the risks and what techniques will be implemented to manage its potential effects upon the environments.

The report has been drafted to satisfy the requirements of European Commission, UK and Defra guidance (where applicable), most notably:

- European Commission – Industrial Emissions Directive 2010;
- The Environmental Permitting Regulations (England and Wales) 2016 (as amended); and
- Environmental Permitting General Guidance Manual on Policy and Procedures for A2 and B Installations 2012.

This ERA uses the following approach for identifying and assessing the risks from the proposed permitted operations:

Step 1 Identify and consider risks for your site and the sources of the risks.

Step 2 Identify the receptors at risk from your site.

Step 3 Identify the possible pathways from the sources of the risks to the receptors

Step 4 Assess risks relevant to your specific activity and check they are acceptable and can be screened out.

Step 5 State what you will do to control the risks if they are too high

Step 6 Submit your risk assessment as part of your EP application.

Section 2.0 of this document is a screening step to identify potential risks to the environment as part of this assessment.

Section 3.0 identifies people or parts of the environment that could be harmed (at potentially significant risk) by the activity. The ERA for an EP application requires all receptors that are near the Site and could reasonably be affected by the activities to be identified and considered as part of the assessment.

The guidance¹ requires all likely receptors that are near the Site and could reasonably be affected by the proposed activities and both the direct and indirect environmental effects to be identified and considered as part of the ERA and to assess the measures to mitigate proposed risks. The assessment requires the identification and quantification of possible effects.

Therefore, for the purpose of this report:

- a 2km radius for RAMSAR, SAC, SPA, Marine Potential SPA, SSSIs and other sites of cultural and ecological; and
- a radius of 500m from the proposed permit boundary has been adopted for all other potentially sensitive receptors (for example, residential, commercial, industrial, agricultural and surface water receptors).

Section 4.0 of this document presents the assessment and demonstrates that any risks of pollution or harm will be mitigated to manage the risk.

This ERA should be read in conjunction with the following documents submitted with this Part B application:

- Application Form
- Operating and Environmental Management Plan document (SLR Ref. 416.10377.00001_OEMP)
- Air Emissions Risk Assessment (SLR Ref. 416.10377.00001_AERA)
- Drawings
 - 001 Site Location & Receptors (SLR Ref. 416.10377.00001_Drawing 001)
 - 002 Environmental Permit Boundary (SLR Ref. 416.10377.00001_Drawing 002)
 - 003 Site Layout Plan (SLR Ref. 410. 416.10377.00001_Drawing 003)

2.0 CONSIDERATION OF RISKS

Step 1 is a screening step to identify potential risks to the environment from the development. The risk assessment must identify whether any of the following risks could occur and what the environmental impact could be:

- Any discharge;
- Accidents;
- Odour;
- Noise and vibration;
- Uncontrolled or unintended emissions (Fugitive emissions);
- Visible emissions; and
- Release of bioaerosols.

¹ Environmental Permitting General Guidance Manual on Policy and Procedures for A2 and B Installations, April 2012

Based on the proposed permit for the Installation, there will be no point source emissions to groundwater, or land and the proposed operations will not attract pests. For the purpose of this ERA these elements have not been considered.

Therefore, only the following risks are required to be assessed for the permit application:

- Odour;
- Noise and vibration;
- Fugitive emissions (including, dust, litter, mud, leaks/spills and pollutant); and
- Accidents.

A Noise Risk Assessment has been complete and included in this permit application to address noise emission to air (document reference 416.10377.00001_Noise Assessment, this is therefore not considered further in this ERA.

An Air Emissions Risk Assessment has been included in this permit application to address emissions to air (document reference 416.10377.00001_AERA).

An Operations and Environment Management Plan (OEMP) has been included in this permit application, to address best available techniques to minimise the impacts on the environment (Ref: 416.10377.00001_OEMP).

3.0 SITE SETTING AND RECEPTORS

Step 2 identifies people or parts of the environment that could be affected (at potentially significant risk) by the activity. This section identifies the Site setting and potentially sensitive receptors in the vicinity of the Site.

3.1 Site Setting

The Site is located on the Stanmore Industrial Estate in Bridgnorth, Shropshire, WV15 5HP, approximately 3.5km to the east of Bridgnorth town centre. The National Grid Reference (NGR) for the centre of the site is SO 7470 9278. The location of the Site is shown in Drawing 001 and the detailed site layout is shown in Drawing 003. The surrounding land uses and receptors within 2km are identified in Drawing 001.

The Stanmore Industrial Estate has one access point only, via the A454. A network of internal roads provides access to the Site once in the Industrial Estate. The Site has vehicular access points on its northern and southern boundaries.

A summary of the immediate surrounding land use is provided in Table 1.

Table 1
Immediate Land Uses Surrounding the Site

Direction	Land-Use
North	Industrial and commercial units, agricultural land and woodland.
East	Commercial unit, Estate Road, agricultural land, pond, beyond which lies a woodland and further agricultural land.
South	Estate Road, commercial unit, woodland, agricultural land, residential properties and Russell Close Road.

Direction	Land-Use
West	Estate Road, commercial and industrial unit, Stewart Road and woodland.

3.1.1 Industrial and Commercial

The Site is located within Stanmore Industrial Estate. Classic Motor Cars lies approximately 10m west and another unit east of the site boundary. TG AUTO'S lies approximately 22m south beyond Estate Road. Additional units lie to the north and west of the Site boundary.

3.1.2 Local Transport Network

The closest road is Estate Road which lies adjacent to the west of the boundary of the Site. Additionally, Stewart Road lies 200m west and Russell Close Road lies 336m south of the Site.

3.1.3 Surface Water Features

A review of Multi Agency Geographical Information for the Countryside² (MAGIC) map reveals Hoccum Pool lies 165m east of the Site boundary.

3.1.4 Woodland

Three parcels of woodland lie within 500m of the Site boundary. The closest of which lies approximately 45m south of the site, followed by a parcel approximately 190m east of the Site boundary. Additionally, a parcel lies approximately 500m north of the Site boundary.

3.1.5 Agricultural Land

Agricultural land lies 45m to the east, 245m to the north and 325m south of the Site boundary.

3.1.6 Residential

Residential properties lie 320m south of the Site, along Russell Close.

3.2 Geology, Hydrogeology and Hydrology

3.2.1 Geology

A search on the British Geological Survey (BGS)³ Map and the GroundSure report identifies the Site as having the following strata:

- Superficial Deposits: Devensian Till (clay sand and gravel) formed up to 2 million years ago in the Quaternary Period in an environment dominated by ice age conditions; and
- Bedrock Deposits: Kidderminster Formation (interbedded sandstone and conglomerate).

3.2.2 Hydrogeology

The superficial deposits at the site comprise a secondary (undifferentiated) aquifer. These are assigned where it is not possible to attribute either category A or B aquifers to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.

² Multi-Agency Geographical Information for the Countryside Map, available at www.magic.defra.gov.uk, accessed in August 2021.

³ British Geological Survey, available at <http://www.bgs.ac.uk>, accessed August 2021.

Bedrock below the site is classified as a Principal Aquifer, which is defined as:

“layers of rock or drift deposits that have high angular and/or fracture permeability. meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer”

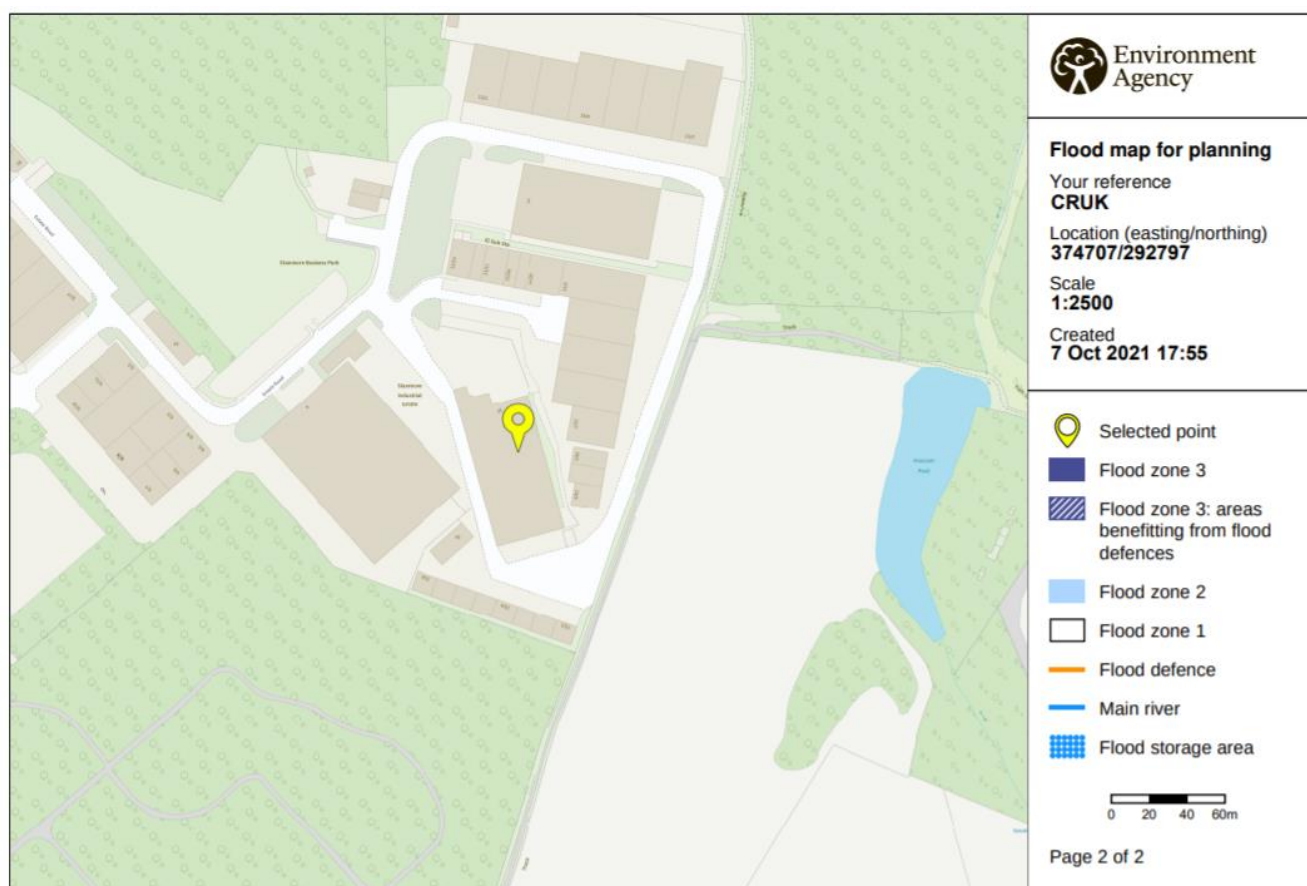
The north of the Site lies within Zone III – Total Catchment Source Protection Zone. The southern extent of the Site does not lie within a Source Protection Zone.

3.2.3 Hydrology

The groundwater vulnerability for the Site is identified as high vulnerability to the east and medium-high vulnerability to the west on MAGIC map.

Flood Zone

The Flood Map for Planning⁴ identifies that the Site lies in Flood Zone 1 (an area with a low probability of flooding) (Figure 1).



© Environment Agency copyright and / or database rights 2021. All rights reserved. © Crown Copyright and database right 2021. Ordnance Survey licence number 100024198.

Figure 1 Flood Zones within the Site boundary

⁴Flood map for planning, available at <https://flood-map-for-planning.service.gov.uk/>, accessed August 2021

3.3 Ecology

3.3.1 Internationally Designated Sites

A review of MAGIC map confirms that none of the following are within 2km:

- Sites of Special Scientific Interest
- RAMSAR
- Special Areas of Conservation (SAC); or
- Special Protection Areas.

3.3.2 Nationally/Locally Designated Sites

A review of MAGIC map confirms that Hermitage Hill Coppice parcel of Ancient Woodland lies approximately 785m southwest of the Site boundary.

A review of MAGIC map confirms that none of the following are situated within a 2km radius of the Site boundary;

- National Parks;
- Local Nature Reserves;
- Areas of Outstanding Natural Beauty (AONB);
- National Nature Reserves (NNR);
- Biosphere Reserves; or
- RSPB Reserves.

3.4 Cultural Heritage

Fourteen listed buildings lie within 2km of the Site boundary. The closest Grade II listed building, Stanmore Hall lies approximately 650m southwest of the Site boundary and the closest Grade II* listed building, Roughton House lies approximately 1680m northeast of the Site boundary.

The Hermitage schedule monument lies approximately 1950m northwest of the site boundary.

A review of MAGIC map confirmed that none of the following are situated within a 2km radius of the Site boundary:

- Registered Parks and Gardens;
- World Heritage Sites; or
- Registered Battlefields.

3.5 Identified Receptors

Table 2 and Drawing 001 identified receptors which are considered to be potentially sensitive and could reasonably be affected by activities at the Site.

Table 2 Identified Receptors

Receptor Name	Receptor Type	Direction from Site	Approximate Distance from Site Boundary at closest point (in metres)
Stanmore Industrial Estate	Industrial	All directions	Adjacent
Estate Road	Local Transport Network	West	Adjacent
Classic Motor Cars	Commercial	West	10
Commercial	Commercial	East	10
TG AUTO'S	Commercial	South	22
Deciduous Woodland	Priority Woodland	South	45
Agricultural Land	Agricultural Land	East	45
Hoccum Pool	Surface Water Feature	East	165
Deciduous Woodland	Priority Woodland	East	190
Stewart Road	Local Transport Network	West	200
Agricultural Land	Agricultural Land	North	245
Residential	Residential	South	320
Agricultural Land	Agricultural Land	South	325
Russell Close Road	Local Transport Network	South	336
Deciduous Woodland	Priority Woodland	North	500
Cultural and ecological receptors and European designated ecological sites within 2km of the EP boundary as shown on Drawing 001			
Stanmore Hall	Listed Building – Grade II	Southwest	650
Hermitage Hill Coppice	Ancient Woodland	Southwest	785
Roughton House	Listed building – Grade II*	Northeast	1680
The Hermitage	Schedule Monument	Northwest	1950

3.6 Windrose

Figure 2 shows the wind patterns between 2016-2020 as identified by Shawbury Meteorological Station. The most prominent wind directions are from the southwest, west and south. Winds from the north, northeast and southeast are relatively infrequent by comparison.

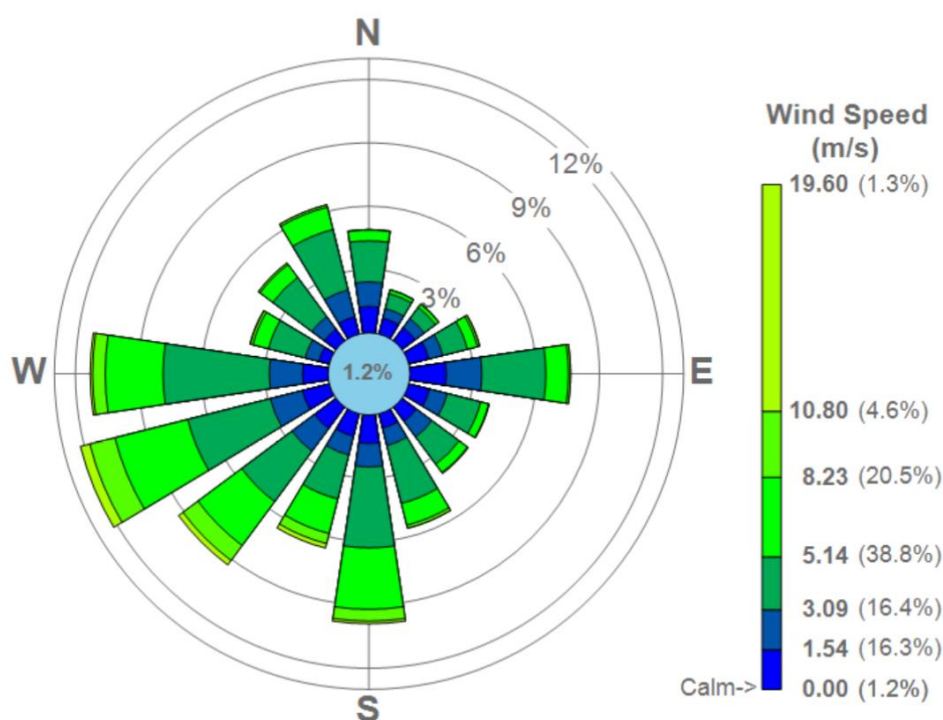


Figure 2
Shawbury Meteorological Station Windrose (2016-2020)

4.0 ENVIRONMENTAL RISK ASSESSMENT

The following table sets out the potential hazards posed by the proposed pyrolysis process at the Site, receptors and pathways, along with management and assessment of the identified risks. As defined in Section 2, this assessment only considers risks to amenity (discharge, odour, fugitive emissions, visible emissions and release of bioaerosols) and as a consequence of accidents.

The probability of exposure is the likelihood of the receptors being exposed to the hazard, and is defined as low, medium or high. These terms are qualified as follows:

- Low: exposure is unlikely, barriers in place to mitigate against exposure.
- Medium: exposure is fairly probable, barriers to exposure less controllable.
- High: exposure is probable, direct exposure likely with few barriers.

The methodology outlined in Section 1.1 of this report is the basis on which it is determined whether the proposed operations will lead to significant impacts on the surrounding environment. Where a conclusion of 'not significant' has been reached, it is proposed that the mitigation and management measures that will be in place at the Site will be sufficient to ensure that there will be no impact at the surrounding environment.

Table 3 Odour Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Receipt of waste. Processing and storage of waste. Emissions to air.	Commercial/industrial premises Site personnel See Drawing 003	Air	Waste accepted on Site will consist only of WEEE material with no putrescible or readily degradable residues. The waste will arrive to Site in bulk bags). All storage of waste will be internally within designated areas. All treatment of waste will take place within the main processing building. Wastes arising from the process will be stored in the internal storage bays. Strict waste acceptance procedures will be adhered to in order to ensure only permitted wastes are accepted on Site. If odorous waste is delivered to Site, it will be segregated and removed at the earliest opportunity. It will then be re-loaded into the delivery vehicle or loaded into a sealable container.	Very low	Odour Nuisance	Not significant – no residential receptors in the direction of the prevailing wind.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
			The Site will be monitored for odours by Site personnel throughout each shift. If odours are detected, investigations will be undertaken to determine the cause and appropriate remedial action taken. Syngas ducting will be lowered onto the port where the WEEE product is charged into the rotating cylindrical processing vessel (BRP) and secured with purpose-built rotary gas tight seal. Additional abatement plant will be used on site reducing potentially odorous emissions including the following features: • Thermal Oxidiser; • quench cooler; • Fabric filter; • ID fan; and • A stack.			

<i>What do you do that can harm and what could be harmed</i>			<i>Managing the Risk</i>	<i>Assessing the Risk</i>		
<i>Hazard</i>	<i>Receptor</i>	<i>Pathway</i>	<i>Risk management</i>	<i>Probability of exposure</i>	<i>Consequence</i>	<i>What is the overall risk</i>
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
			The prevailing wind is from the southeast blowing any potential odorous releases away from residential receptors. The Plant Manager will be responsible for implementing risk management measures in conjunction with the Operations and Environment Management Plan (Ref: 416.10377.00001_OEMP).			

Table 4 Fugitive Emissions Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
To Air:						
Dust from vehicle movements	Industrial and commercial receptors.	Air	The following measures are used to prevent mobilisation of dust from vehicle movements: • All vehicle movement is completed on hard surfaces. • Good housekeeping of surfaces. • Speed limits will be implemented. The waste types to be accepted on Site will not give rise to significant quantities of dusty waste, due to the nature of the material.	Low – process is within a unit.	Nuisance and health risk to human receptors.	Not significant
Transfer of material, storage and treatment	See Drawing 003					

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
			WEEE material will be deposited in the Site's internal bays and processed within the unit building. Visual inspections are carried out daily and in response to complaints.			
Dust from machinery and equipment	Industrial and commercial receptors	Air	Machinery used on site will not generate dust. Additionally, the BRP will be situated in a unit building which will help to contain dust.	Low – with the mitigation measures in place	Nuisance and health risk to human receptors.	Not significant
To Water:						
Runoff from site surfaces	Potentially sensitive receptors including	Land, surface and ground water	All waste will be stored and treated on impermeable surfacing. Treatment of waste will be within the unit building.	Low	Nuisance, pollution of controlled water and soil.	Not significant

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
	controlled water, land, commercial and industrial properties.		Due to the nature of the waste to be accepted and the proposed operations on Site, there will be no contaminated run off generated under normal operating conditions. The only runoff will be uncontaminated roof water. Limited liquid raw material will be stored on site. However, all liquids and hazardous materials will be stored in secure, fit for purpose, containment located on impermeable surfacing within bunded areas. The bunds will be capable of containing at least 110% of the volume of the largest container within the bund or 25% of the total tank volume within the bund, whichever is the greater. Raw and waste materials associated with the BRP and associated plant will be stored in internal bays and where required			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
			provided with adequate secondary containment.			
Percolation of contaminated liquid into groundwater	Ground water		Raw material and product will be stored on hard surfaced areas. Environmental spillage kits suitable for absorbing and containing minor spillages are maintained on Site. Minor spillages are cleaned up immediately, using sand or proprietary absorbent to clean up liquids and are placed in alternative containers. In the event of a major spillage immediate action is taken to contain the spillage and prevent liquid from entering the external surface water drains. The spillage is cleared immediately and placed in clearly labelled containers for off-site disposal and the Local Authority is notified.	Low	Contamination nuisance, pollution of soil and controlled water.	Not Significant

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
			The operational area of the Site where the proposed BRP and associated plant will be located is surfaced with impermeable surfacing to prevent the percolation of contaminated materials into the underlying soil and groundwater. Any weaknesses in surfacing are repaired immediately using temporary solutions, and with permanent measures implemented as soon as practicable. The Plant Manager is responsible for implementing risk management measures in conjunction with the Operations and Environment Management Plan (Ref: 416.10377.00001_OEMP).			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
Litter						
Litter from waste	Sensitive receptors listed in Table 2 including road network, industrial, commercial, agricultural and ecological receptors.	Air	Waste acceptance procedures will ensure that only authorised wastes are accepted and does not contain litter. The Site is kept clean and tidy by way of a daily housekeeping regime of operational areas/the Site perimeter. WEEE feedstock will be transported in bulk bags and stored internally in storage bays. Waste produced as part of the process is kept to a minimum, stored correctly and disposed of correctly off site in a safe and environmentally sound manner. The waste hierarchy will be adhered to at all times.	Low	Nuisance	Low

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
			All treatment of waste will be processed inside the unit building to prevent dispersion by air. Vehicles transporting on the public highway will be enclosed. The Plant Manager is responsible for implementing risk management measures in accordance with operational and management procedures.			

Table 5 Accidents Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
Leakage from Site equipment Spillage of waste material when charging to BRP	Local land quality, surface water and groundwater	Runoff and percolation through ground	WEEE material will be transferred to the BRP in a purpose-built container by forklift truck and lifted into position on the BRP platform. The BRP will be tilted forward 25° from vertical when charging. Plant will only be operated by trained and competent individuals. The site benefits from impermeable surfacing. Planned maintenance of control and protective devices will be undertaken. Proprietary containment will prevent the release of potential polluting liquids.	Low	Contamination of land, groundwater and surface water	Low – due to the limited amount of liquid raw material on site.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
			Operation of the BRP vessel will be controlled and monitored by the Site personal. Additionally, the BRP and associated plant will be subject to regular visual inspection by Site staff to ensure the continued integrity of the equipment and associated plant and the requirement for any remedial action. Materials suitable for absorbing and containing minor spillages is maintained on Site. Minor spillages will be cleaned up immediately, using sand or proprietary absorbent to clean up liquids and placed in alternative containers. In the event of a major spillage immediate action will be taken to contain the spillage and prevent liquid from entering the external			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
			surface water drains. The spillage will be cleared immediately and placed in containers for off-site disposal and the Local Authority will be notified. The Plant Manager is responsible for implementing risk management measures in conjunction with the Operations and Environment Management Plan (Ref: 416.10377.00001_OEMP).			
Fire	Industrial and commercial See Drawing 003	Air Land, surface water and groundwater.	The Site has the following in place which seeks to reduce the impacts as the result of a fire: • Fire and site evacuation procedures; • A fire alarm system; • Emergency lighting; and • Fire Extinguishers/hoses in place.	Medium	Harm to human health and ecology. Nuisance. Contamination of land, groundwater and surface water	Low – due to the inspection and maintenance processes which will be implemented, and the fire prevention measures in place.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
			Operation of the BRP will be controlled and monitored by Site personnel; any fires that may occur will be readily identified and the necessary action taken. Additionally, the BRP and associated plant will be subject to regular visual inspection by Site staff and regular maintenance and servicing by the technology provider. Plant and equipment will be regularly inspected to identify early signs of degradation.			
Vandalism and Security	Harm to human receptors, commercial and industrial receptors	Land, surface water, groundwater, air.	In order to prevent unauthorised access, a number of security measures are in place at the Site including: 24-hour CCTV surveillance which covers the site and are digitally recorded;	Low	Theft, plant failure, harm to human health, environmental harm.	Low

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
			- Lockable building doors; and - Visitor Sign in/Sign out book. A documented security manual is in place which is subject to annual review. The Plant Manager is responsible for implementing risk management measures in conjunction with the Operations and Environment Management Plan (Ref: 416.10377.00001_OEMP).			
Flooding	Surface water, soils and groundwater. Receptors as identified in Table 2.	Flood waters over land	The Site lies within Flood Zone 1 an area of low probability of flooding. Raw and waste materials associated with the BRP will be stored in suitable containers. Feedstock will be stored internally in storage bays which will act to protect	Low	Contaminated flood waters impacting land in industrial/commercial areas and ecological receptors.	Low

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? – Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence</i>
	See Drawing 003		against the risk of damage as a result of any flood waters.			
Vehicle collisions	Harm to human receptors		The site implements strict vehicle movement protocols to prevent collisions.	Low	Harm to human health	Low

5.0 Conclusion

This qualitative ERA has been undertaken in accordance with EA guidance. The assessment concludes that with the implementation of the risk management measures described above, potential hazards from the proposed permitted activity are not likely to be significant or pose a significant risk of harm to sensitive receptors in the vicinity of the Site and therefore, no further assessment is required.

EUROPEAN OFFICES

United Kingdom

AYLESBURY

T: +44 (0)1844 337380

BELFAST

T: +44 (0)28 9073 2493

BRADFORD-ON-AVON

T: +44 (0)1225 309400

BRISTOL

T: +44 (0)117 906 4280

CARDIFF

T: +44 (0)29 2049 1010

CHELMSFORD

T: +44 (0)1245 392170

EDINBURGH

T: +44 (0)131 335 6830

EXETER

T: + 44 (0)1392 490152

GLASGOW

T: +44 (0)141 353 5037

GUILDFORD

T: +44 (0)1483 889800

LONDON

T: +44 (0)203 805 6418

MAIDSTONE

T: +44 (0)1622 609242

MANCHESTER

T: +44 (0)161 872 7564

NEWCASTLE UPON TYNE

T: +44 (0)191 261 1966

NOTTINGHAM

T: +44 (0)115 964 7280

SHEFFIELD

T: +44 (0)114 245 5153

SHREWSBURY

T: +44 (0)1743 23 9250

STIRLING

T: +44 (0)1786 239900

WORCESTER

T: +44 (0)1905 751310

Ireland

DUBLIN

T: + 353 (0)1 296 4667

France

GRENOBLE

T: +33 (0)6 23 37 14 14