



Environmental Risk Assessment

Pure World Energy Limited



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SITE DETAILS

Framptons Limited
Charlton Road
Shepton Mallet
Gloucestershire
BA4 5PD

OPERATOR DETAILS

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DRAWINGS

REFERENCE	TITLE	DATE
K482.1~20~002	Site Setting Plan (2km), Rev 3	03/05/2023

APPENDICES

REFERENCE	TITLE	DATE
Appendix A	H1 Risk Assessment	03/05/2023
Appendix B	Groundsure Report (GS-9379542)	24/02/2023

1 INTRODUCTION & BACKGROUND

This document is the Environmental Risk Assessment (ERA) that accompanies the application for a Bespoke Environmental Permit for a Medium Combustion Plant (MCP) to be installed at Framptons Ltd, Unit 76, Charlton Road, Shepton Mallet, Gloucestershire. The application is being made by Pure World Energy Limited.

Framptons Ltd produce a variety of processed food and dairy products and are undergoing a major expansion to increase production. As part of this an energy centre, gas turbines, a heat recovery boiler and a biomass boiler are all to be incorporated. This application will focus on the turbines and heat recovery boiler.

This Environmental Risk Assessment (ERA) has been produced on behalf of Pure World Energy Limited (the operator and applicant), in line with current Environment Agency guidance, 'Risk assessments for your environmental permit'¹, to support an application for a Bespoke Environmental Permit.

This ERA is also supported by a H1 Risk Assessment to assess the impact of the proposed MCP on the nearby environment.

1.1 Scope

This risk assessment is based on the source-pathway-receptor approach. All potential sources of pollution associated with the activities have been assessed against the principal receptor types identified within the site's vicinity.

The requirement for risk management measures is then dependent on a viable pathway being present between the source and the receptor. Where such pathway exists, management measures are required to reduce risk.

1.2 Aims

This assessment aims to consider potential environmental hazards associated with the activity, to identify sensitive receptors which these may impact, and determine the influence management practice has on reducing risk.

¹ [Risk assessments for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit), updated 31 August 2022

2 SITE SETTING

2.1 Location



Figure 1 Aerial image of the site, showing the permit boundary in green

The permitted site is operated by Pure World Energy Ltd and is located at Unit 76, Charlton Road, Shepton Mallet, BA4 5PD. The site location is east of the town of Shepton Mallet and shown on the Site Setting Plan (K482.1~20~002) and the National Grid Reference for the site is ST 62777 43218. The site lies within an industrial area in Shepton Mallet. The villages of Bodden and Doultong are located 1.2 km northeast and 2 km east of site respectively.

2.2 Humans and Property

The nearest residential dwelling (ID 1) is adjacent to, and west of, the permit boundary, shown on the Site Setting Plan (2 km) (K482.1~20~002).

The site is situated in the Crown Trading Estate, with commercial properties to the east, south, and northwest. Residential areas are located to the west and the north of site. Further residential areas are located 45 m east of the permit boundary. Whistone school is located 190 m west-northwest of site.

2.3 Environmentally Sensitive Sites

Environmentally sensitive sites include;

Sites of Special Scientific Interest (SSSI); Special Areas of Conservation (SAC); Special Protection Areas (SPA); RAMSAR sites; National Nature Reserves (NNR); Ancient Woodlands (AW); Local Nature Reserves (LNR); County Wildlife Sites (CWS); World Heritage Sites; Areas of Outstanding Natural Beauty (AONB); and National Parks; and Biodiversity Action Plan (BAP) priority habitats

2.3.1 Designated Environmental Receptors

Three SSSIs are located within 2 km of the permit boundary. They are summarised in Table 1 below and identified on the Site Setting Plan (K482.1~20~002).

Table 1 Designated Sites

ID	DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
1	SSSI – Viaduct Quarry	1.2 km	NW
2	SSSI – Hobbs Quarry	1.5 km	NNW
3	SSSI – Doultling Railway Cutting	2.0 km	ESE

The closest site protected by a statutory designation is the Viaduct Quarry SSSI located approximately 1.2 km from site. This site is designated as a geological SSSI for the limestone deposits exposed by quarrying. Hobbs Quarry SSSI and Doultling Railway Cutting SSSI are located approximately 1.5 km and 2 km from site respectively and are also designated as geological SSSIs.

2.3.2 Non-Statutory Designated Receptors

A series of non-designated environmental sites are located within 2 km of site, as shown on the Site Setting Plan (K482.1~20~002). Table 2 summarises non-statutory designated sites within 1 km of the permit boundary.

Table 2 Non-Statutory Designated Sites

ID	DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
1	Biodiversity Action Plan (BAP) Priority Habitat - Broadleaved Deciduous Woodland	215 m	SW
2	BAP Priority Habitat - Broadleaved Deciduous Woodland	530 m	WSW
3	BAP Priority Habitat - Broadleaved Deciduous Woodland	570 m	NNW
4	BAP Priority Habitat - Broadleaved Deciduous Woodland	855 m	WNW
5	BAP Priority Habitat - Broadleaved Deciduous Woodland	875 m	SE
6	BAP Priority Habitat - Broadleaved Deciduous Woodland	875 m	WSW

2.4 Geology

2.4.1 Artificial ground and made ground

There are no records artificial or made ground identified in Appendix A within 500 m on site, although given the site history and industrial nature it is likely that some artificial and made ground is present.

2.4.2 Superficial Geology

There are no records of superficial geology identified on site, or within a 500 m area (Appendix A).

2.4.3 Bedrock Geology

The records show that the bedrock geology underlying site is Langport Member and Blue Lias formation, a form of limestone, formed during the Rhaetian age. No other bedrock geology was identified within 500 m of site.

2.5 Hydrogeology

There are no records of superficial geology identified within 500 m of site and therefore no aquifers in superficial geology.

The aquifer status of the bedrock underlying site is a Secondary A aquifer, described as:

“Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.” (Appendix A).

2.6 The site is located in Source Protection Zone (SPZ) 1c, this is an inner catchment confined aquifer Hydrology

Table 3 Surface Water Features

DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
River Sheppy	335 m	E
Collett Park Pond	600 m	W
Martins Lane Pond	295 m	E
Kilver Court Garden	270 m	N
Frog Lane Pond	720 m	SE

2.7 Flood Risk

2.7.1 Risk of Flooding from Rivers and Sea

The site is located within a Flood Zone 1 meaning the land has a less than 1 in 1000 annual probability of river or sea flooding. There is a very low risk in relation to Risk of Flooding from Rivers and Sea (RoFRaS).

2.7.2 Surface water flooding

The highest risk of surface water flooding identified on site is a 1 in 30-year flood event to a depth of 0.3 – 1.0 m. This is a medium risk of surface water flooding.

2.7.3 Groundwater flooding

The highest risk of groundwater flooding identified on site is negligible.

2.8 Air Quality

The site does not lie within an Air Quality Management Area (AQMA).

2.9 Nature of Risk Assessment

This document provides a broad and general assessment of the risk factors considered to be of significance for the site, and an evaluation of the impact from the principal risk factors to receptors within the site vicinity.

3 METHODOLOGY

3.1 Hazard Identification

A hazard is something with potential to cause harm to something else. Table ERA1 below identifies the principal hazard types which may be associated with the proposed activity; and indicates where hazards are identified and determined to be of significant potential risk to determine further assessment. Potential hazards from this activity are as follows:

ERA1 Identified Hazard Types

PRINCIPAL HAZARD TYPE	SUB-HAZARD TYPE	POTENTIAL SOURCE	RISK	REQUIRES FURTHER ASSESSMENT
Odour	N/A	<ul style="list-style-type: none"> Emissions released from Medium Combustion Plant (MCP) process 	<ul style="list-style-type: none"> Potential for odour relating to emissions from stack. 	✓ ERA8 below
Point Source Emissions to Air	None	<ul style="list-style-type: none"> Emissions released from MCP process 	<ul style="list-style-type: none"> Release of VOCs 	✓ H1 & ERA8 below
Fugitive Emissions to Air	Dust and Particulate Matter	<ul style="list-style-type: none"> Emissions released from MCP process 	<ul style="list-style-type: none"> Dust and particulate matter liberated from external areas only during dry conditions 	✓ ERA8 below
	Litter and Debris	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	No
Fugitive Emissions - Pests	Pests, vermin, scavengers	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	No
Fugitive Emissions – mud and debris	Litter and Debris	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	No
Fugitive Emissions – to Water	Contaminated runoff	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	No
Accidents	Transferring substances	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	✓ ERA9 below
	Plant or equipment failure	<ul style="list-style-type: none"> Failure of process machinery 	<ul style="list-style-type: none"> Damage to elements of process Leakage from MCP 	
	Flooding	<ul style="list-style-type: none"> Flood Risk from Rivers or the Sea Surface water flooding 	<ul style="list-style-type: none"> Flood Zone 1 - very low risk Medium risk of SW flooding, MCP operated within a building 	
	Vandalism	<ul style="list-style-type: none"> Unauthorised access 	<ul style="list-style-type: none"> Risk of damage to machinery vital for process or storage containment. 	
	Fire	<ul style="list-style-type: none"> Failure of MCP 	<ul style="list-style-type: none"> Uncontrolled emissions of smoke and firewater 	

PRINCIPAL HAZARD TYPE	SUB-HAZARD TYPE	POTENTIAL SOURCE	RISK	REQUIRES FURTHER ASSESSMENT
Noise and Vibration	Plant operations	<ul style="list-style-type: none"> Operation of MCP 	<ul style="list-style-type: none"> MCP operated within a building and an established industrial area 	<p>✓</p> <p>ERA10 below</p>
Climate Change	<ul style="list-style-type: none"> Extreme maximum & minimum temperature Extreme rainfall Drier summers 	<ul style="list-style-type: none"> Operation of MCP 	<ul style="list-style-type: none"> MCP operated within a building and an established industrial area Weather warnings considered for plant operation 	<p>✓</p> <p>ERA11 below</p>

3.2 Receptors

A receptor is the object (e.g. person, organism, resource or property) impacted by a hazard. For example, odour may cause offence to a human (the receptor). When identifying receptors which may be at risk from the site, the following have been considered:

- Ancient woods
- Locations used to grow food or to farm animals or fish
- Drain and sewer systems
- Factories and other businesses
- Fields and allotments used to grow food
- Footpaths
- Roads and railways
- Groundwater beneath the site
- Homes, or groups of homes
- Playing fields and playgrounds
- Private drinking water supplies
- Regionally important geological sites
- Schools, hospitals, and other public buildings
- Water
- Conservation and habitats protected areas and areas of scientific interest

Sensitive receptors within 2 km of the permit boundary are shown on the Site Setting Plan (K482.1~20~001). The IDs on the Site Setting Plan correspond to the Receptors Table (ERA2) below.

ERA2 Receptors

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
HUMANS AND PROPERTY		Site Workers	On site	-
		Site Visitors	On site	-
	INHABITANTS OF RESIDENTIAL PROPERTIES			
	1	Charlton Residential Area	30 m	W
	2	Victoria Grove Residential Area	45 m	N
	3	River Sheppey Residential Area	80 m	ENE
	4	Collett Park Residential Area	105 m	W
	5	Field Residential Area	225 m	SW
	6	Charlton	270 m	ESE
	7	Princes Lodge and surrounding residential area	330 m	NW
	8	Shepton Mallet School Residential Area	565 m	WNW
	9	Residential area off Kilver St Hill	520 m	NNW
	10	Ingsdon Farm	570 m	ENE
	11	West Shepton/ Field Residential area	830 m	WSW
	12	Billimore Farm	840 m	SE
	13	Residential Area South of Shepton Mallet Burial Ground	1 km	NW
	14	West Shepton	1 km	WSW
	15	Bodden	1.1 km	NE
	17	Residential area south of Darshhill	1.1 km	WNW
	16	Downside Residential Area	1.3 km	NNW
	18	Village of Doultling	1.7 km	E
	SENSITIVE PUBLIC USE			
	1	Whitstone School	190 m	WNW
	2	St Michael's Church	750 m	W
	3	St Paul's Cofe CV Junior School	760 m	W
	4	Shepton Mallet Town Council	775 m	W
	5	St Peters& Pauls Church	830 m	WNW
	6	Shepton Mallet Burial Ground	1.2 m	NW
	7	Bowlsh Infants School	1.2 km	WNW
	8	St Aldhelm's Primary School	1.8 km	E
	9	Practice Plus Group Hospital	1.9 km	WNW
	10	Shepton Mallet Community Hospital	2.0 km	WNW
COMMERCIAL USE				
1	Crown Trading Estate	0 m	ESE	
2	Showerings Cider Mill, Charlton Park	90 m	NNW	
4	Mendip Avenue commercial area	370 m	SE	
3	Showerings Cider Mill Tanker Mill	380 m	NNW	
5	Commercial area of A361 Fosse Lane	540 m	SSE	
6	Haskins Retail Centre	970 m	WNW	

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION	
	7	Townsend Shopping Par	970 m	W	
	8	Solar Farm off A37	1.1km	N	
	9	Commercial area off commercial road	1.2km	WNW	
	10	Industrial site off Bodden Lane	1.2km	NE	
	11	J & W Davis Ltd	1.4 km	NNE	
	PUBLIC RIGHTS OF WAY				
	1	Charlton Road to end of Charlton Close	35 m	NE	
	2	Martins Lane to Kilver Street Hill	220 m	ENE	
	3	E Mendip Way from Victoria Grove via Bodden Lane	270 m	N	
	4	Martins Lane to Bodden Lane	330 m	ENE	
	5	Great Barton to E Mendip Way	370 m	N	
	6	Charlton Road to Collett Park	540 m	W	
	7	Collett Park to Cannard's Grave Road	540 m	SW	
	8	Kilver Street Hill West Via E Mendip Way	555 m	NNW	
	9	Kilver Street to Quarr	555 m	NNW	
	10	Kilver Street Hill to Fose Way	580 m	NNW	
	11	Kilver Street Hill to Martins Lane	595 m	NNW	
	12	Frog Lane	610 m	SE	
	13	Bodden Lane to River Sheppey	615 m	E	
	14	Cannard's Grave Road to Westway Lane	660 m	WSW	
	15	Cornhill to Leg Square Court	710 m	WNW	
	16	Kilver Street Hill North to Solar Field	735 m	NNW	
	17	Cornhill to Gaol Lane	760 m	WNW	
	18	Charlton Road To Mendip Vale	805 m	ESE	
	19	Peter Street to Paul Street A361	825 m	WNW	
	20	Park Road to Collett Park	840 m	W	
	21	Barrendown Lane	940 m	WNW	
	22	Barrendown Lane / E Mendip Way	1 km	NW	
	RECREATIONAL AREAS				
	1	Shepton Mallet Leisure Centre	315 m	NW	
	2	Collett Park	325 m	W	
	3	Tadley Place	455 m	SSW	
	4	Field House (From Somerset Care)	485 m	WSW	
5	Little Brook Grean	670 m	SSW		
6	Cannard Grave Roundabout Public Footpath	924 m	SSW		
7	E Mendip Way	990 m	NNW		
8	Mendip Vale Railway Station	1.2 km	SE		
9	Springfield Close Playing Field	1.3 km	W		
10	Queens Road Playground	1.4 km	W		

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
	11	West Shepton Playing Fields/ Shepton Mallet Skate Park	1.7 km	W
	12	Rosamond Green Farm	1.9 km	NW
	CRITICAL INFRASTRUCTURE			
	1	Shepton Mallet Prison	700 m	NW
	2	Shepton Mallet Police Station	1.1 km	WNW
	3	Shepton Mallet Ambulance Station (SWAST)	1.2 km	WNW
	4	Shepton Mallet Fire Station	1.2 km	WNW
WATER	SURFACE WATER			
	-	River Sheppy	335 m	E
	-	Collett Park Pond	600 m	W
	-	Martins Lane Pond	295 m	E
	-	Kilver Court Garden	270 m	N
ENVIRONMENTALLY SENSITIVE SITES	DESIGNATED SITES			
	1	Viaduct Quarry	1.1 km	NW
	2	Hobbs Quarry	1.5 km	NNW
	3	Doulling Railway Cutting	2 km	ESE
	NON-DESIGNATED SITES			
	1	Priority Habitat - Broadleaved Deciduous Woodland	215 m	SW
	2	Priority Habitat - Broadleaved Deciduous Woodland	530 m	WSW
	3	Priority Habitat - Broadleaved Deciduous Woodland	570 m	NNW
	4	Priority Habitat - Broadleaved Deciduous Woodland	855 m	WNW
	5	Priority Habitat - Broadleaved Deciduous Woodland	875 m	SE
6	Priority Habitat - Broadleaved Deciduous Woodland	875 m	WSW	
HERITAGE SITES	SCHEDULED MONUMENTS & LISTED BUILDINGS			
	1	Charlton Listed Buildings Grade 2/2*	220 m	ENE
	2	Scheduled Monument- Romano-British linear village, Fosse Lane, Shepton Mallet	550 m	S
	3	North Shepton Mallet Listed Buildings Grade 1/2/2*	721 m	NW
	4	Market cross in the market place	955 m	WNW
	5	Two bowl barrows on Barren Down, 250m north west of Princes Lodge	1.1 km	NW
	6	Medieval wayside cross at Bodden	1.4 km	NE
	7	West Shepton Listed Buildings Grade 2	1.6 km	W
8	Douting Listed Buildings Grade 1/2/2*	1.7 km	ESE	

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
	9	Bowlish Listed Buildings Grade 2/2*	1.8 km	WNW
	10	The tithe barn	1.9 km	E
	11	Darhill Listed Buildings Grade 2	1.9 km	WNW

3.3 Prevailing Wind Direction

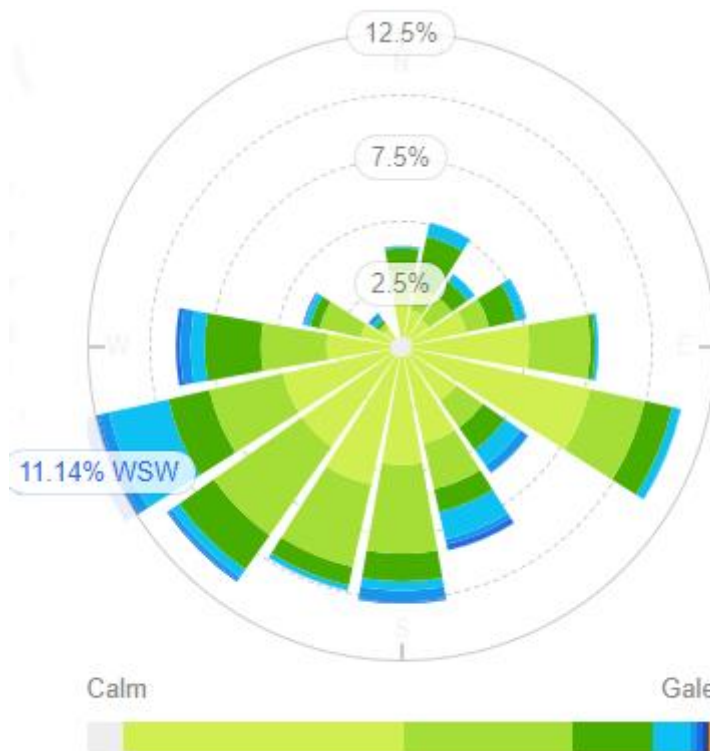


Figure 2 Yeovilton wind rose. Annual 5-year average, 2018-2023 (willyweather.co.uk).

The closest observing station where wind statistic data is available is at Yeovilton, approximately 20 km south-southwest of the permit boundary. Figure 2 presents the wind statistics on a wind rose as an annual average using data from the previous 5 years (March 2018 - March 2023). The wind rose indicates that the sensitive receptors located towards the east-northeast of the site are potentially at greatest risk from hazards transmitted through the air.

3.4 Pathways

The pathway is the means by which the hazard reaches the receptor and forms the link between the two. For example, a dust hazard may reach a receptor by travelling through air, with the air therefore being the pathway.

The source-pathway-receptor link must be present for there to be a risk. Management measures applied at the site act to minimise the overall risk by impeding or removing the pathway.

ERA3 Pathways

RECEPTOR	HAZARD	PATHWAY
Humans and Property	Odour	Transmitted through the air
	Dust and Particulate Matter	Transmitted through the air
	Noise	Transmitted through the air
	Birds, Vermin & Insects	Physical travel
	Fire	Physical contact and spread
Groundwater	Contaminated runoff	Infiltration through the ground
Surface Water	Contaminated runoff	Direct discharge from site
Environmentally Sensitive Sites	Dust and Particulate Matter	Transmitted through the air
	Noise	Transmitted through the air
	Fire	Physical contact and spread
Atmosphere	Dust and Particulate Matter	Transmitted through the air

3.5 Risk

Assessment of risk is based on the probability of receptor exposure to the identified hazards and the consequences of such exposure. The initial assessment of risk is made assuming no risk management practices are applied.

A matrix is used to determine overall risk and uses the following definitions:

ERA4 Probability of Exposure

PROBABILITY OF EXPOSURE
HIGH – <i>exposure is probable</i> : direct exposure likely with no / few barriers between hazard, source and receptor.
MEDIUM – <i>exposure is fairly probable</i> : feasible exposure possible, barriers to exposure less controllable.
LOW – <i>exposure is unlikely</i> : several barriers exist between hazards source and receptors to mitigate against exposure.
VERY LOW – <i>exposure is very unlikely</i> ; effective, multiple barriers in place to mitigate against exposure.

ERA5 Consequences of Exposure

CONSEQUENCES OF EXPOSURE
HIGH – <i>the consequences are severe</i> : sufficient evidence that short or long-term exposure may result in serious damage.

CONSEQUENCES OF EXPOSURE
MEDIUM – <i>consequences are significant</i> ; sufficient evidence that exposure to hazard may result in damage that is not severe in nature and reversible once exposure ceases (e.g. irritant).
LOW – <i>consequences are minor</i> ; damage not apparent though reversible adverse changes may occur.
VERY LOW – <i>consequences are negligible</i> ; no evidence of adverse changes following exposure.

Comparison between probability and consequence provides the overall risk which is reached as follows:

ERA6 Assessing Overall Risk

		CONSEQUENCES			
		Very Low	Low	Medium	High
LIKELIHOOD	High	Low	Medium	High	High
	Medium	Low	Medium	Medium	High
	Low	Low	Low	Medium	Medium
	Very Low	Very Low	Low	Low	Low

3.6 Risk Management

Risk management practices for the key hazards identified above are summarised in Section 4 of this ERA. The information presented below is supported by various documents and this is clearly indicated within each table presented. In addition, risk management measures have been developed with reference to relevant guidance documents, the following being of particular note:

- Environmental Management – Guidance: Risk assessment for your environmental permit²
- Guidance: Noise and vibration management: environmental permits³
- Guidance: Control and monitor emissions for your environmental permit⁴

² [Risk assessments for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit), Updated 31 August 2022

³ [Noise and vibration management: environmental permits - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/noise-and-vibration-management-environmental-permits), Updated 31 January 2022

⁴ [Control and monitor emissions for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit), Updated 24 November 2022

- Sector Guidance Note S5.06: Recovery and disposal of hazardous and non-hazardous waste.⁵

This risk assessment details the key management measures for the risk identified.

3.7 Residual Risk

The application of management practice results in a residual risk which is detailed within Section 4 of this ERA (below).

⁵ [Sector Guidance Note S5.06: recovery and disposal of hazardous and non-hazardous waste - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/744222/Sector-Guidance-Note-S5.06-recovery-and-disposal-of-hazardous-and-non-hazardous-waste-2018.pdf), Updated 10 October 2018

4 RISK ASSESSMENT

The key hazards identified for the activity have been subject to a risk assessment against management practice. Each hazard is assessed in a separate table. The information presented is, as appropriate, supported by other documents and these are referenced.

Many of the hazards identified in the following tables relate to 'Environmental Risk Points (ERP)' identified throughout the processes:

ERA7 Environmental Risk Points

REFERENCE	PROCESS
ERP1	Plant operation

ERA8 Point Source / Fugitive Emissions – to Air – Odour, Dust, and Particulate Matter

Identifying the harm and what could be harmed			Assessing the risk			Managing the risk	
Hazard	Receptor	Pathway	Probability of exposure	Consequence	Overall risk	Risk Management	Residual risk
<i>What has the potential to cause harm?</i>	<i>What is the risk? What do I wish to protect?</i>	<i>How can the hazard get to the receptor?</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</i>	<i>What measures will we take to reduce the risk?</i>	<i>What risk remains following the application of management measures?</i>
ERP1 Plant operation	<p>Humans & Property</p> <p>Environmentally Sensitive Sites (only geological SSSIs identified within 2km of site)</p> <p>Atmosphere</p> <p>Inhalation of particles.</p> <p>Deposition of dust/particles on property and land.</p> <p>Derogation to amenity value</p>	Air	LOW	MEDIUM	MEDIUM	<ul style="list-style-type: none"> All activities relating to the operation of the Medium Combustion Plant (MCP) are undertaken within a building, complete with impermeable surface. All MCP infrastructure and pipework used will be checked periodically for signs of frailty or leakage. Emissions from the MCP are subject to emission limits to prevent excessive pollutant release to atmosphere. All equipment will be maintained in accordance with the manufacturer’s recommendations. Process equipment regularly cleaned to remove residual particulates. Site does not lie within an Air Quality Management Area (AQMA). H1 assessment (K482.1~09~002): the long-term NOx PEC <70% of Environment Assessment Level and therefore acceptable in the rural site setting. 	LOW

ERA9 Accidents

Identifying the harm and what could be harmed			Assessing the risk			Managing the risk	
Hazard	Receptor	Pathway	Probability of exposure	Consequence	Overall risk	Risk Management	Residual risk
What has the potential to cause harm?	What is the risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains	What measures will we take to reduce the risk?	What risk remains following the application of management measures?
Equipment Failure							
ERP1 Plant Operation	<p>Humans & Property</p> <p>Environmentally Sensitive Sites</p> <p>Surface Water</p> <p>Groundwater</p> <p>Atmosphere</p> <p><i>Adverse impact</i></p>	<i>Land, air, water</i>	LOW	MEDIUM	MEDIUM	<ul style="list-style-type: none"> MCP equipment is maintained in accordance with their maintenance schedules or when applicable. MCP operation is subject to natural gas and electrical management systems. 	LOW

Identifying the harm and what could be harmed			Assessing the risk			Managing the risk	
Hazard	Receptor	Pathway	Probability of exposure	Consequence	Overall risk	Risk Management	Residual risk
What has the potential to cause harm?	What is the risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains	What measures will we take to reduce the risk?	What risk remains following the application of management measures?
Flooding							
Entire Process	<p>Humans & Property</p> <p>Environmentally Sensitive Sites</p> <p>Surface Water</p> <p>Groundwater</p> <p>Atmosphere</p> <p><i>Adverse impact</i></p>	<p>Water</p> <p><i>Site within Flood Zone 1 – Very low risk</i></p> <p><i>Medium risk of Surface water flooding</i></p>	LOW	LOW	LOW	<ul style="list-style-type: none"> Housekeeping measures in place as part of inspection measures. MCP process takes place within a building on an impermeable surface. 	VERY LOW

Identifying the harm and what could be harmed			Assessing the risk			Managing the risk	
Hazard	Receptor	Pathway	Probability of exposure	Consequence	Overall risk	Risk Management	Residual risk
What has the potential to cause harm?	What is the risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains	What measures will we take to reduce the risk?	What risk remains following the application of management measures?
Vandalism							
Entire Process	<p><i>Humans & Property</i></p> <p><i>Environmentally Sensitive Sites</i></p> <p><i>Surface Water</i></p> <p><i>Groundwater</i></p> <p><i>Atmosphere</i></p> <p>Adverse impact</p>	<i>Land, air, water</i>	LOW	MEDIUM	MEDIUM	<ul style="list-style-type: none"> Site is secured by locked doors outside of operating hours. Site is located within an established industrial estate. 	LOW

Identifying the harm and what could be harmed			Assessing the risk			Managing the risk	
Hazard	Receptor	Pathway	Probability of exposure	Consequence	Overall risk	Risk Management	Residual risk
What has the potential to cause harm?	What is the risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains	What measures will we take to reduce the risk?	What risk remains following the application of management measures?
Fire							
Entire Process	<p>Humans & Property</p> <p><i>Environmentally Sensitive Sites</i></p> <p>Surface Water</p> <p>Groundwater</p> <p>Atmosphere</p> <p><i>Adverse impact</i></p>	Spread through physical contact; fanned by winds	LOW	HIGH	MEDIUM	<ul style="list-style-type: none"> • Fire Risk Assessment in operation. • Equipment shall be maintained in accordance with the appropriate maintenance schedule or when required. • Operational areas of the site are no smoking zones. • Inspections and housekeeping help maintain site. 	LOW

ERA10 Noise & Vibration

Identifying the harm and what could be harmed			Assessing the risk			Managing the risk	
Hazard	Receptor	Pathway	Probability of exposure	Consequence	Overall risk	Risk Management	Residual risk
What has the potential to cause harm?	What is the risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains	What measures will we take to reduce the risk?	What risk remains following the application of management measures?
ERP1 Plant operation	<i>Noise sensitive locations¹</i> <i>Environmentally Sensitive Sites</i>	<i>Noise sensitive locations⁶</i> <i>Environmentally Sensitive Sites</i>	LOW	MEDIUM	MEDIUM	<ul style="list-style-type: none"> • Operations are only carried out within permitted hours. • Site is located in an within an established industrial area. • All activities relating to MCP operation are undertaken within a building. • Plant and equipment is inspected and maintained in line with maintenance schedule set out by the manufacturer. 	LOW

⁶[Noise and vibration management: environmental permits - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/noise-and-vibration-management-environmental-permits), Updated 31 January 2022

ERA11 Climate Change

Identifying the harm and what could be harmed			Assessing the risk			Managing the risk	
Hazard	Receptor	Pathway	Probability of exposure	Consequence	Overall risk	Risk Management	Residual risk
What has the potential to cause harm?	What is the risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains	What measures will we take to reduce the risk?	What risk remains following the application of management measures?
ERP1 Plant operation	Humans & Property Environmentally Sensitive Sites Surface Water Groundwater Atmosphere <i>Adverse impact</i>	Land, air, water	LOW	MEDIUM	MEDIUM	<ul style="list-style-type: none"> Daily inspections by site staff and records kept. Weather warnings considered for plant operation, including extreme rainfall, drought, unusual atmospheric pressure conditions. 	LOW



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