



**AN APPLICATION TO VARY ENVIRONMENTAL
PERMIT PRE-APPLICATION REFERENCE NUMBER
EPR/WE2918AC IN RESPECT OF LUTON RAILHEAD,
CRESCENT ROAD, LUTON**

**NUISANCE AND AMENITY ENVIRONMENTAL RISK
ASSESSMENT (ERA)**

Report reference: GRS/LU/PF/5733/01/ERA
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CONTENTS

1.	Introduction	1
2.	Conclusion	4

TABLES

Table ERA 1 Risk screening matrix

Table ERA 2 Assessment of nuisance and amenity risks associated with the treatment of waste at Luton Railhead

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1. Introduction

- 1.1** MJCA is commissioned by GRS (Roadstone) Limited (GRS) to prepare an application to vary Environmental Permit number EPR/WE2918AC (the permit) in respect of Luton Railhead, Crescent Road, Luton, Bedfordshire, LU1 3JG (the site). The permit currently comprises Standard Rules Permit SR2010 No12 *'Treatment of waste to produce soil, soil substitute and aggregate'*. In accordance with the permit up to 75,000 tonnes of waste per year can be accepted at the site. The permit was issued by the Environment Agency (EA) on 23 October 2023.
- 1.2** Although the permit provides for the treatment of waste to produce soil, soil substitute and aggregate the only waste related activities which are carried out at the site comprise the operation of an Incinerator Bottom Ash Aggregate (IBAA) blending facility. The IBAA activities undertaken at site comprise the acceptance, under List of Waste Code (LoW) 19 12 12, of IBAA that has been processed elsewhere to meet the BS13242 specification. The IBAA is stored on site before being blended with primary aggregates or aggregates produced in accordance with the Aggregates Quality Protocol¹. The IBAA is blended to form an aggregate output to meet a required specification which is sent off site for use. The processed IBAA is imported to the site by road and the aggregate product is predominantly exported from the site by road. It is possible that aggregate product may also be exported by rail. Primary aggregates or aggregates produced in accordance with the Aggregates Quality Protocol are predominantly imported to the site by rail although they may also be imported to the site by road.
- 1.3** The only change to the operations at the site as a result of this application to vary the permit is an increase in the maximum quantity of waste accepted at the site from 75,000 tonnes per annum to 100,000 tonnes per annum. Only LoW Code 19 12 12 is accepted at the site and generally consistent with Standard Rules Permit SR2010 No12 the LoW Coded 19 12 12 comprises *'other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11 (processed incinerator bottom ash aggregate which complies with BS 13242 only)'*. As the acceptance of up to 100,000 tonnes of LoW Coded 19 12 12 per annum is inconsistent with Standard Rules Permit SR2010 No12 this application comprises

¹ WRAP (Waste & Resources Action Programme) Quality Protocol for Aggregates from inert waste, end of waste criteria for the production of aggregates from inert waste published on 22 October 2013

an application to vary the permit to a bespoke permit. There will be no changes to the permitted activities at the site.

- 1.4** The site is centred approximately at National Grid Reference (NGR) TL 09734 21476 to the north east of Luton town centre in an urban setting. The site boundary the subject of the permit is shown outlined in green on Figure 1 of the application report and covers an area of approximately 0.9 hectare (ha). The nearest residential properties are approximately 35m north east of the site. There will be no changes to the site boundary as a result of the application to vary the permit. The boundary of the permit covers the south eastern half of the GRS Luton Railhead. The operations the subject of the permit are limited only to the waste related operations and not the wider railhead operations.
- 1.5** The layout of the site the subject of the permit is shown on Figure 2 of the application report. The site, including the IBAA storage and blending area is located in the open air. The IBAA storage and blending operations are carried out on an impermeable surface with a sealed drainage system. The IBAA storage and blending areas are delineated on three sides by concrete block walls up to 4m high. In summary the IBAA blending operations are carried out by loading shovels and the placement in the bays of alternate layers of IBAA and aggregate. Effective dust suppression is provided.
- 1.6** This document comprises a nuisance and amenity environmental risk assessment (ERA) prepared generally in accordance with Environment Agency guidance entitled 'Risk assessments for your environmental permit' published on GOV.UK². A risk screening matrix is provided in Table ERA 1 and the assessment is presented in Table ERA 2.
- 1.7** The ERA considers potential receptors and pathways for impacts based on the understanding of the environment surrounding the site. The assessment of the risks associated with the site are based on the generic risk assessment for Standard Rules SR2010 No12 taking into consideration the proposed additional waste throughput.
- 1.8** The selection of potential receptors has been informed by information presented on the Defra MAGIC website, Google Earth and the Environment Agency Nature and

² Available at <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>. Published 1 February 2016. Last updated 31 August 2022. Last accessed 4 July 2023.

Heritage Conservation Screening Report provided during basic pre-application advice provided at Appendix ERA A. The risk assessment takes into consideration receptors within 500m of the site with the exception of statutorily designated nature conservation sites for which a distance of up to 2km has been specified. The Nature and Heritage Conservation Screening Report did not identify any habitats and/or protected species which needed to be considered in the permit application.

- 1.9** Based on information on the DEFRA MAGIC website there are no Special Protection Areas (SPA), Special Areas of Conservation (SACs), National Nature Reserves (NNRs), Local Nature Reserves (LNR) or Local Wildlife Sites (LWS) located within 2km of the site. There is one Site of Special Scientific Interest (SSSI) within 2km of the site boundary. Dallow Downs and Winsdon Hill SSSI is located approximately 1.6km west of the site boundary.
- 1.10** Based on the information available on MAGIC there are no Scheduled Monuments or World Heritage Sites within 500m of the site. There are several Grade II listed buildings and one Grade I listed building within 500m of the site. The closest Grade II listed building is The Gas Lamps outside Numbers 10 and 32 Hart Hill Drive which is located approximately 165m east of the site. Other Grade II listed buildings are located in excess of 400m west of the site and in excess of 470m north west of the site. The Grade I listed Parish Church of St Mary is located from approximately 280m southwest of the site.
- 1.11** A Dust and Particulate Matter Emissions Management Plan (DEMP)³ has been prepared to support the application to vary the permit. The DEMP provides further details of the receptors in the vicinity of the site. The DEMP is presented at Appendix E of the application report.
- 1.12** A Noise Impact Assessment (NIA)⁴ has been prepared to support the application to vary the permit. It is concluded in the NIA that there will be no adverse impact arising from the proposals at the nearest residential receptors. The NIA is presented at Appendix F of the application report.

³ Report reference GRS/LU/PF/5733/01/DEMP dated February 2024 (Appendix E to the application report).

⁴ Report reference 5395 dated February 2024 (Appendix F to the application report).

2. Conclusion

- 2.1 The ERA presented in Table ERA 2 that has been completed to support the application to vary the permit demonstrates that the operation of the facility with the implemented controls has a low or very low risk of adverse impact on amenity or the surrounding environment including sites of heritage or nature conservation interest.

TABLES

Table ERA 1 Risk screening matrix (waste treatment activity)

RISK TYPE	ODOUR		NOISE AND VIBRATION		FUGITIVE EMISSIONS								
					PARTICULATE MATTER				LITTER		BIRDS, VERMIN AND INSECTS		MUD ON THE ROAD
GENERIC HAZARDS GENERIC RECEPTORS ¹	Waste storage and handling	Waste delivery	Waste delivery	Waste storage and handling	Waste delivery	Waste storage and handling	Restored surfaces	Access routes	Waste delivery	Waste storage and handling	Waste delivery	Waste deposition	Vehicle Movements
DOMESTIC DWELLING			X	X	X	X	X	X					
SCHOOLS AND COLLEGES			X	X	X	X	X	X					
HOSPITALS													
OFFICES/COMMERCIALPREMISES			X	X	X	X	X	X					
INDUSTRIAL PREMISES			X	X	X	X	X	X					
PUBLIC FOOTPATH OR BRIDLEWAY			X	X	X	X	X	X					
HIGHWAYS OR ROADS					X	X	X	X					X
PARKS AND PUBLIC OPEN SPACES			X	X	X	X	X	X					
FARMLAND WITH LIVESTOCK													
FARMLAND ARABLE													
PRIORITY HABITAT													
NATURE SITE OF LOCAL IMPORTANCE (e.g. LNR, CWS)													

RISK TYPE	ODOUR		NOISE AND VIBRATION		FUGITIVE EMISSIONS								
					PARTICULATE MATTER				LITTER		BIRDS, VERMIN AND INSECTS		MUD ON THE ROAD
GENERIC HAZARDS	Waste storage and handling	Waste delivery	Waste delivery	Waste storage and handling	Waste delivery	Waste storage and handling	Restored surfaces	Access routes	Waste delivery	Waste storage and handling	Waste delivery	Waste deposition	Vehicle Movements
GENERIC RECEPTORS ¹													
SITE OF SPECIAL SCIENTIFIC INTEREST (within 2km)					X	X	X	X					
SPECIAL AREA OF CONSERVATION (within 2km)													
SPECIAL PROTECTION AREA OR OTHER RELEVANT SSSI (within 2km)													
LISTED BUILDINGS (within 500m)			X	X	X	X	X	X					
SCHEDULED MONUMENT (within 500m)													
AIRPORT													
RAILWAY					X	X	X	X					
SURFACE WATER					X	X	X	X					

X = generic receptor type present and generic hazard considered as part of this assessment set out in Table ERA 2

¹ All generic receptors within 500m have been identified unless an alternative distance has been identified.

Table ERA 2 – Assessment of nuisance and amenity risks associated with the treatment of waste at Luton Railhead

What do you do that can harm and what could be harmed?			Assessing the risk			Managing the risk	
Hazard	Receptor (see Table ESSD 2)	Pathway	Probability of exposure	Consequence	What is the overall risk?	Risk management	What is the residual 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?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
Odour							
There are no potential sources of odour at the site.	Local human population	Air	Negligible	Nuisance from odour	Negligible	The wastes accepted are processed IBAA. Odour is not associated with this waste type. Waste acceptance procedures will be in place.	Negligible
Noise							
Blending, mobile plant and vehicles	Local human population	Air	Medium to low	Nuisance from noise	Medium to low	The potential impacts of noise from the development have been assessed and a Noise Impact Assessment has been provided with the application. It is concluded in the NIA that there will be no adverse impact arising from the proposals at the nearest residential receptors.	Very low
Vibration							
Blending, mobile plant and vehicles	Local human population	Ground	Low to very low	Nuisance from vibration	Medium to low	Prior to the development of the site as a facility for blending IBAA the site operated as a aggregate railhead for many years. No issues or complaints related to vibration have been reported. Given that the operation of the blending facility is similar in nature to the operation of the aggregate railhead and uses similar plant there is no reason to assume that there will be any significant impacts associated with vibration.	Very low
Fugitive emissions							

What do you do that can harm and what could be harmed?			Assessing the risk			Managing the risk	
Hazard	Receptor (see Table ESSD 2)	Pathway	Probability of exposure	Consequence	What is the overall risk?	Risk management	What is the residual 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?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
Particulates from access routes, waste delivery, waste storage and waste treatment	Local human population / properties / public highway / water bodies / sensitive habitat	Air	Low	Deposition of particulate matter	Medium to low	A Dust and Particulate Matter Emissions Management Plan (DEMP) has been prepared to support the operation of the site. The DEMP describes the operations at the site which may have the potential to have an impact on air quality as a result of emissions of particulate matter, describes the operational controls which are implemented to minimise emissions and describes the monitoring which is carried out to confirm the effectiveness of the management controls. The proposed changes the subject of the application to vary the permit will not increase significantly the risk associated with dust emissions compared with the currently permitted activities.	Low to very low
The wastes that will be accepted have a very low potential to generate litter or to attract birds, vermin or insects.	Local human population / properties / public highway / water bodies / sensitive habitat	Air	Negligible	Nuisance associated with litter, birds, vermin or insects	Negligible	Acceptance procedures will be in place. The processed IBAA accepted at the site has a very low potential to generate litter, attract scavenging animals and scavenging birds or insects.	Negligible
Mud and debris deposited on the public highway	Public highway	Vehicle movements	Low	Mud on the public highway	Low	In order to minimise the deposition of mud and debris on the public highway the IBAA blending operations are carried out on newly formed areas of impermeable concrete surfacing. The concrete surface is maintained in a condition which is consistent with minimising mud and debris on the public highway. Hand held high pressure wheel	Low

What do you do that can harm and what could be harmed?			Assessing the risk			Managing the risk	
Hazard	Receptor (see Table ESSD 2)	Pathway	Probability of exposure	Consequence	What is the overall risk?	Risk management	What is the residual 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?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
						cleaning equipment is available at the site for use as necessary before leaving the site. Vehicles are instructed to use the wheel cleaning equipment if necessary prior to returning to the local road network. The wheel cleaning equipment is maintained in full working order.	
Accidents							
Waste stored and treated on site	Local human population gaining unauthorised access to the waste operation	Direct physical contact	Low	Bodily injury	Low	The waste types that will be accepted at the site should not cause harm to human health by virtue of their composition. Security measures which are implemented currently in respect of the existing operations comprising the use of fencing, safety signs and regular inspections will continue to be implemented to minimise the potential for unauthorised entry to the site. The main site gates are locked outside normal working hours.	Very low
Vehicle movements on site	Local human population gaining unauthorised access to the site	Direct physical contact	Low	Bodily injury	Medium	Security measures are implemented currently in respect of the existing operations and will continue to be implemented to minimise the potential for unauthorised entry to the site. Vehicles employ suitable non-tonal reversing alarms.	Low
Accidental release of fuel	Water resources	Infiltration to ground	Low	Contamination of water resources	Medium	Company operational, maintenance, inspection and accident management procedures are in place. Spillage kits are available and site personnel are trained in their use.	Low

What do you do that can harm and what could be harmed?			Assessing the risk			Managing the risk	
Hazard	Receptor (see Table ESSD 2)	Pathway	Probability of exposure	Consequence	What is the overall risk?	Risk management	What is the residual 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?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
Flooding	The generic receptors identified in Table ERA 1	Flood waters	Low	Flooding associated with the generic receptors identified in Table ERA 1	Low	Based on EA flood maps the site is located in Flood Zone 1 which is land assessed as having an annual probability of flooding from rivers or the sea of less than 1 in 1,000 (<0.1%). Based on the Envirocheck report the site is within an area with a low risk of surface water flooding. Although based on the BGS Flood GFS dataset the site is in an area with the potential for groundwater flooding to occur, it is reported in the 2013 Luton Level 1 strategic flood risk assessment (SFRA) that groundwater flooding is not a regular or frequently occurring source of flooding locally. Based on information presented in the SFRA the closest location recorded by the EA at which groundwater flooding has occurred is approximately 2.5km from the site.	Low
Fire	Atmospheric emissions. Discharge of contaminated firewater	Air	Very low	Nuisance from smoke and odour. Contamination of water resources	Very low	As the waste accepted at the site are non-flammable and non-combustible the risk of occurrence of fires is negligible. As a result associated risks from fire-fighting water being discharged to controlled waters are negligible.	Negligible
Waste operations may cause harm to and deterioration of nature conservation sites.	SSSI	Air	Very Low	Harm to protected site through dust deposition	Very Low	Measures are in place to minimise the risk of unacceptable impacts from the waste operations on the surrounding environment which are protective also of the SSSI. It is considered that the potential hazards from the permitted activities pose a negligible risk to the SSSI.	Negligible
Waste operations may cause harm to	There are no nature						

What do you do that can harm and what could be harmed?			Assessing the risk			Managing the risk	
Hazard	Receptor (see Table ESSD 2)	Pathway	Probability of exposure	Consequence	What is the overall risk?	Risk management	What is the residual 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?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
and deterioration of nature conservation sites.	conservation sites						
Waste operations may cause harm to and deterioration of heritage conservation sites.	Listed Buildings	Air	Low	Deterioration of designated heritage sites	Low	Measures are in place to minimise the risk of unacceptable impacts from the waste operations on the surrounding environment which are protective also of Listed Buildings. It is considered that the potential hazards from the permitted activities pose a negligible risk to the Listed Buildings.	Low