Site Specific Bioaerosol Risk Assessment

Guy and Wright Ltd

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SITE DETAILS

Guy and Wright Ltd

The Vineries

Green Tye

Much Hadham

Ware

Hertfordshire

SG10 6JJ

OPERATOR DETAILS

Guy and Wright Ltd

The Vineries

Green Tye

Much Hadham

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SG10 6JJ

PERMIT REFERENCE

EPR/ PP3793EU/V005

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DRAWINGS

REFERENCE	TITLE	DATE
K163.1~20~045	Site Setting Plan (2 km)	03/12/2025

1. INTRODUCTION

This document is a Specific Site Bioaerosol Risk Assessment (SSBRA) for Guy & Wright Ltd Anaerobic Digestion (AD) facility at the site located at The Vineries, Green Tye, Much Hadham, Ware, Hertfordshire; SG10 6JJ. The site is located at National Grid Reference TL 44251 18635.

The Anaerobic Digestion (AD) facility processes organic wastes to generate biogas for combustion to produce heat and energy. The site is operated and managed by Guy and Wright Ltd issued with an Environmental Permit EPR/PP3793EU/V005.

The application has been prepared by Wiser Environment Limited on behalf of the applicant Guy and Wright Ltd. The SSBRA has been produced in line with Environment Agency guidance, 'Risk assessments for your environmental permit'[1].

This SSBRA identifies potential risks associated with bioaerosols and proposes mitigating measures that can reduce adverse impacts and should be read in conjunction with the other supporting documents included within the application.

1.1. Scope

This risk assessment is based on the source-pathway-receptor approach. All potential sources of bioaerosol associated with waste acceptance, storage and treatment 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 establish potential sources of bioaerosols 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), updated 01 December 2025

2. SITE SETTING

2.1. Location

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

The site is approximately 1.25 kilometres to the east of the village of Much Hadham, with Bishop's Stortford, the nearest town, lying approximately 2.8 kilometres north-east of the site. The village of Perry Green lies 865m to the southwest.

The site occupies part of the wider landholding of Guy & Wright Ltd and is situated near the glasshouses in which Guy & Wright Ltd grows tomatoes on a commercial sale.

The site is surrounded by agricultural land (all within the ownership of Guy & Wright Ltd), with the nearest residential properties of Green Tye located approximately 100m to the south. The applicant resides at The Vineries which is in closest proximity to the digester.

2.2. Humans and Property

The closest sites of permanent human occupation, not occupied by the operator, are situated approximately 100m south of the site in the village of Green Tye.

2.3. Environmentally Sensitive Sites

There are no sites of ecological interest within 2km of the site.

Environmentally sensitive sites include;

Sites of Special Scientific Interest (SSSI); National Nature Reserves (NNR); Special Areas of Conservation (SAC); Special Protection Areas (SPA); RAMSAR sites; Local Nature Reserves (LNR); World Heritage Sites; Environmentally Sensitive Areas; Areas of Outstanding Natural Beauty (ANOB); and National Parks.

2.4. Nature of Risk Assessment

This document provides an assessment of the processes considered to be of significance for bioaerosol generation risk, and an evaluation of the impact from the processes to receptors within the site vicinity.

3. AD process Description

The facility provides anaerobic digestion of organic wastes from a variety of agricultural, commercial and industrial sources. The process involves the breakdown of organic material by bacteria in the absence of oxygen; this provides both a volume and mass reduction of the input materials whilst liberating ‘biogas’ (methane & carbon dioxide) which is used as a fuel to produce heat energy for use in the process and generates power which is sent to the National Grid. The resultant nutrient rich whole digestate is produced to be compliant with PAS 110:2014 and the Quality Protocol for Anaerobic Digestate (ADQP) and used as a replacement for artificial fertilisers.

Wastes are delivered to the site into the reception area between the hours of 07.30 and 18.00, Monday to Friday and 07.30 to 13.30 on Saturdays. All loads are inspected for non-

permitted wastes and quality. Contaminated loads are refused entry, and details are recorded in the site diary and on the check list by the operator. Solid loads are tipped into the steel hopper trough with unloading device. The bottom of the hopper has a “moving floor” allowing feedstock to transfer to the macerator.

Run off from the hopper is collected and fed into the digestion process, where liquid wastes are pumped directly into the holding tank; third party digestate is pumped directly to the storage lagoon. There are facilities within the reception area to wash vehicles before leaving the site where there is a possibility of tracking mud and debris on to the highway.

Waste is stored in the Tipping Area (capacity of 180m^3). The tipping area consists of a sealed floor, made from steel and takes all the runoff into a sealed tank (run off tank).

Feedstock passes automatically from the hopper through 2 macerator units reducing solids to a semi-liquid stream. The maceration process will reduce particles to no greater than 12mm. Waste is piped to a holding bunded tank.

Holding areas for pre-treatment construction:

- The macerated feedstock is held in the holding tank for up to 24 hours and heated.
- The holding tanks are bunded to contain spillages and sit on concrete pads.
- Treated feedstock is transferred by way of computer controlled sealed pipework.

There are two digestate lagoons present at the site with a total capacity of 13,000m^3. These lagoons are used to store all produced and externally delivered digestate (solids and liquids). The digestate is pumped from the fermentation cells or reception area to the digestate lagoon and stored for up to 12 months. The digestate is thoroughly mixed using a paddle mixer before deployment.

4. METHODOLOGY

4.1. Hazard Identification

A hazard is something with potential to cause harm to something else, where the principal hazard associated with the composting process is emission of bioaerosols.

Bioaerosol is simply a general term for micro-organisms suspended in the air. These micro-organisms include fungi and bacteria, as well as their components such as mycotoxins, endotoxins and glucans.

Waste management operations, especially involving organic biodegradable wastes such as food waste and garden waste, provide environments that are conducive to the growth of fungi and bacteria.

Bioaerosols have been shown to cause inflammation of the respiratory system, coughs and fever and inhalation of bioaerosol may cause or exacerbate respiratory diseases. They have been also known to cause gastrointestinal illness, eye irritation and dermatitis. [2]

BRA1 Identified Bioaerosol Hazard Types

PRINCIPAL HAZARD TYPE	SUB-HAZARD TYPE	POTENTIAL SOURCE	RISK
Odour	Odour	• Waste delivery operations • Digester compound and tank openings • Digestate storage lagoons • Pipework flanges and connections • Sludge handling and dispatch areas	• Odorous bioaerosols carry microbial particles • May indicate presence of pathogenic microorganisms
Point Source Emissions to Air		• Digester Venting system • Biogas release points • Pressurised equipment	• Concentrated bioaerosol release
Fugitive Emissions to Air	Dust and Particulate Matter	• Delivery operations including unloading and loading • Vehicle movements • Mobile plant operations	• Bioaerosols suspended in dust
	Litter and Debris	• Waste reception areas • Storage areas • Open pipework & connections • Digestate maintenance areas	• Organic litter that can become a secondary source of bioaerosols
Fugitive Emissions – Pests	Pests, vermin, scavengers	• Waste reception areas • Digestate storage & lagoons • Food waste areas • Spill areas	• Potential spread of pathogenic microorganisms and contamination
Fugitive Emissions – to Water	Contaminated runoff	• Spillage from delivery vehicles • Digestate tanks • Sludge handling • Equipment washdown • Surface water drainage system	• Contaminated runoff may create exposure pathways through potential evaporation

[2] EA "Guidance on the evaluation of bioaerosol risk assessments for composting facilities" and references within.

PRINCIPAL HAZARD TYPE	SUB-HAZARD TYPE	POTENTIAL SOURCE	RISK
Accidents	Transferring substances	• Spillages • Digestate Transfer • Pipework or connection failure • Sludge pump failure • Chemical process failure	• Spillage of digestate waste and release of bioaerosols
	Plant or equipment failure	• Venting system failure • Digester process system failure • CHP enclosure failure • Instrument failure • Loss of utilities	• Emergency venting events • Loss of containment systems • Emissions due to process failure
	Flooding	• Waste reception areas • Digestate lagoon • Site drainage and containment system	• Flood waters becoming contaminated with organic waste
	Vandalism	• Digester compound security breach • Process equipment and control systems • Biogas infrastructure	• Damage to critical biogas infrastructure and containment systems • Disturbance of stored waste
Climate Change	Extreme maximum & minimum temperature	• Waste reception areas • Digestate lagoon • Site drainage and containment system • Pipework or connection failure	• Enhanced microbial growth and an increase in bioaerosol generation • Comprise containment systems and emission control measures
	Extreme rainfall		

4.2. 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 K163.1~20~045. The IDs on the Site Setting Plan correspond to the Receptors Table 1 below.

Table 1 Sensitive Receptors

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
HUMANS AND PROPERTY	-	Site Workers	On site	-
	-	Site Visitors	On site	-
	INHABITANTS OF RESIDENTIAL PROPERTIES			
	1	Ducketts Lane Residential Area	90 m	ESE
	2	Glendale Cottage	120 m	NW
	3	Springs Farm	125 m	NNE
	4	Perry Green	395 m	SSW
	5	Parsonage Lane Residential Area	440 m	NE
	6	Standsted Hill Residential Area	485 m	W
	7	Much Hadham Residential Area	640 m	W
	8	Warren Farm Residential Area	715 m	ENE
	9	Grange House	1.05 km	NNE
	10	Sacombs Ash	1.25 km	SE
	11	Blount's Farm	1.25 km	ESE
	12	Blount's Lane	1.7 km	SE
	SENSITIVE PUBLIC USE			
	1	The Mission Hall	85 m	S
	2	St Thomas Perry Green Church	715 m	SW
	3	Henry Moore Art Gallery	950 m	SSW
	4	Much Hadham Education Facility	1.05 km	WNW
	5	Much Hadham village hall	1.35 km	WNW
	6	St Andrew's Church	1.35 km	NW
	7	Much Hadham Forge Museum	1.4 km	WNW
	8	St Elizabeth's Centre	1.5 km	S
	COMMERCIAL USE			
	1	Guy and Wright commercial area	0 m	SW

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
	2	Wellbeing barn	90 m	SSW
	3	The prince of wales pub	140 m	SE
	4	Right Angle Creative	450 m	WSW
	5	Bit Solutions	630 m	S
	6	Warren farm commercial area	870 m	ENE
	7	JH Electrical Installations	890 m	SW
	8	The Hoops Inn	1.1 km	SSW
	9	Wilford Rd Commercial area	1.3 km	WSW
	10	Tower Hill Commercial Area	1.3 km	W
	11	The Bull Inn	1.4 km	NW
	12	The cosmetic acupuncture clinic	1.6 km	SW
	13	South end commercial area	1.7 km	S
	RECREATIONAL USE			
	1	Great Hadham Country Club	340 m	NNE
	2	Adventure Bark	835 m	NNE
	3	Malting Lane	855 m	WSW
	4	Jobbers Wood	1.2 km	NNE
	5	Much Hadham Sports Association	1.3 km	WNW
	CRITICAL INFRASTRUCTURE			
	1	Fire station	1.3 km	W
	ROADS AND RAILWAYS			
	-	B1004	315 m	N
	PUBLIC RIGHTS OF WAY			
	1	Footpath between Danebridge Road and the Wellbeing barn	100 m	W
	2	Footpath between The Prince of Wales pub and SE Agricultural Fields	160 m	SE
	3	Footpath between B1004 and Green Tyre Residential Area	210 m	E
	4	Footpath between Danebridge Road and Oudle Lane	425 m	NW
	5	Footpath between Danebridge Road and Berryfield Residential Area	425 m	NW
	6	Footpath between Green Tyre and Blount's Farm	465 m	SE
	7	Footpath between the Hoops Inn and Green Tyre Residential Area	475 m	SE
	8	Footpath between Green Tyre and Sacombs Ash	500 m	SE

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
	9	Footpath between B1004 and Harvey's Wood	600 m	NNE
	10	Footpath between Parsonage Lane Residential Area and Warren Farm Residential Area	655 m	ENE
	11	Footpath between Stansted Hill and Mill Wood	730 m	SSW
	12	Footpath between Widford Road and Stansted Hill	735 m	SW
	13	Footpath between Bucklers Hall Farm and Sacombs Ash	810 m	SE
	14	Footpath between Oudle Lane and Hill Farm	810 m	WNW
	15	Footpath between Bucklers Hall Farm and South Residential Area	875 m	S
	16	Footpath between Stansted Hill and Mill Wood	880 m	WSW
	17	Footpath between Church Lane and Chalkdells Farm	885 m	WNW
	18	Footpaths between Stansted Hill and Malting Lane	910 m	W
	19	Footpath between Warren Farm and Blount's Farm	945 m	ENE
	20	Footpath between Malting Lane and Tower Hill	1.0 km	W
	21	Footpath between Fiddlers Brook and Sacombs Ash	1.05 km	SE
	22	Footpath between Great Hadham Country Club and Much Hadham Residential Area	1.1 km	N
	23	Footpath between Malting Lane and Tower Hill	1.15 km	W
	24	Footpath between the Hoops Inn and Bourne Lane	1.15 km	S
	25	Footpath between Winding Hill and Church Lane	1.2 km	NW
	26	Footpath between Church Lane and Tower Hill	1.25 km	WNW
	27	Footpath within Blount's Farm	1.3 km	ESE
	28	Footpath between High Street and Kettle Green Lane	1.35 km	WNW
	29	Footpath between Winding Hill and Northern Agricultural Areas	1.45 km	NNW
	30	Footpath between South End and Warrens Farm	1.5 km	S
	31	Footpath between Kettle Green Lane and Station Road	1.7 km	WSW

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
	32	Footpath between South End and Fiddlers Brook	1.75 km	S
	33	Footpath between B1004 and Eastern Agricultural Areas	1.8 km	ENE

4.3. Prevailing Wind Direction

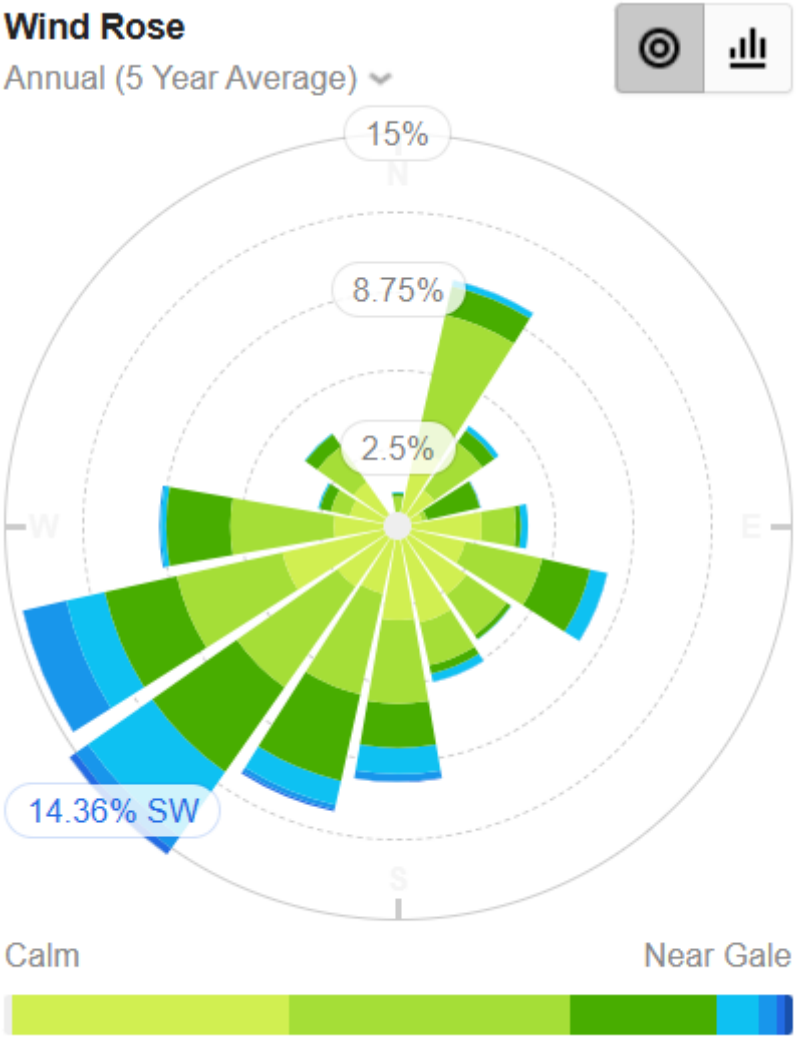

Figure 2 Hadham Cross wind rose. Annual 5-year average, 2021-2026 *(willyweather.co.uk).*

The closest observing station where wind statistic data is available is at Hadham Cross, approximately 640 metres W 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 ([date range]). The

wind rose indicates that the sensitive receptors located towards the northeast of the site are potentially at greatest risk from hazards transmitted through the air.

4.4. Pathways

The pathway is how 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.

BRA3 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

4.5. 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:

BRA4 Probability of Exposure

PROBABILITY OF EXPOSURE
HIGH – *exposure is probable:* direct exposure likely with no / few barriers between hazard, source and receptor.

PROBABILITY OF EXPOSURE
MEDIUM – *exposure is fairly probable*: feasible exposure possible, barriers to exposure less controllable.
LOW – *exposure is unlikely*: several barriers exist between hazards source and receptors to mitigate against exposure.
VERY LOW – *exposure is very unlikely*; effective, multiple barriers in place to mitigate against exposure.

BRA5 Consequences of Exposure

CONSEQUENCES OF EXPOSURE
HIGH – *the consequences are severe:* sufficient evidence that short- or long-term exposure may result in serious damage.
MEDIUM – *consequences are significant;* 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 – *consequences are minor;* damage not apparent though reversible adverse changes may occur.
VERY LOW – *consequences are negligible;* no evidence of adverse changes following exposure.

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

BRA6 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

4.6. RISK MANAGEMENT

Risk management practices for the bioaerosol hazard identified above are summarised below and used for the Risk Assessment in Section 7.

The information presented below is supported by IVC Standard Operating Procedure (SOP, see Appendix D).

The three main mechanisms for mitigation of bioaerosol emissions used are the following:

- reducing releases;
- containing emissions; and

- avoid exposure.

These are mainly achieved through implementing process control measures specified in the SOP and considering the meteorological conditions.

4.7. Residual Risk

The application of management practice results in a residual risk which is detailed within Section 5 of this SSBRA (below).

5. RISK ASSESSMENT

The bioaerosol hazard for the AD activity has been subject to a risk assessment against management practice. The information presented is, as appropriate, supported by other documents and these are referenced.

The bioaerosols emission hazards relate to 'Bioaerosol Risk Points (BRP)' identified throughout the AD processes:

Table 2 Bioaerosol Risk Points (BRP)

REFERENCE	PROCESS
BRP1	Waste delivery and reception operations
BRP2	Anaerobic digestion process (digester operations)
BRP3	Digestate storage and lagoon operations
BRP4	Digestate handling and dispatch operations
BRP5	Maintenance and cleaning operations

Table 3. Bioaerosol Risk Assessment

Identification of potential Harm				Managing the Risk		
BIOAEROSOL RISK POINTS (SOURCE)	**Probability of exposure**	**Consequences of Exposure**	**Overall risk**	**Risk Management**	**Residual risk**	**Justification of residual risk**
What is the process potentially generating bioaerosol?	*How likely is this contact?*		*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?*	
BRP1 Waste delivery and reception: Third-party delivery trucks during unloading operations Exposed organic waste during transport and handling Food waste and organic matter reception	LOW for sensitive receptors due to distance from activity and containment measures	MEDIUM for sensitive receptors due to potential respiratory impacts	**MEDIUM for sensitive receptors**	• All delivery vehicles are covered during transport. • Site personnel direct truck operations to designated unloading areas. • Daily pre-start inspections of handling equipment. Immediate cleanup of spillages with wash-down to safe locations. • Site housekeeping maintains clean surfaces and prevents litter accumulation.	**LOW**	Short duration of unloading operations. Containment within covered vehicles. Site personnel oversight and immediate response to spillages.

Identification of potential Harm				Managing the Risk		
BIOAEROSOL RISK POINTS (SOURCE)	**Probability of exposure**	**Consequences of Exposure**	**Overall risk**	**Risk Management**	**Residual risk**	**Justification of residual risk**
What is the process potentially generating bioaerosol?	*How likely is this contact?*		*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?*	
BRP2 Anaerobic digestion process: Digester venting during maintenance with Permit to Work Biogas system operations and emergency venting Confined space operations with atmosphere testing	VERY LOW for sensitive receptors due to contained process and distance	MEDIUM due to potential bioaerosol content in process emissions	**LOW for sensitive receptors**	• Fully enclosed anaerobic digestion process with gas containment systems. Controlled venting through designated points. • Permit to Work procedures for maintenance activities. • Portable gas detection systems in digester compound. • Confined space entry procedures with atmosphere testing (oxygen >19%). • Process monitoring and control systems with emergency response protocols.	**VERY LOW**	Fully enclosed process with multiple containment barriers. Controlled emissions through designed systems. Distance to sensitive receptors provides additional protection.

Identification of potential Harm				Managing the Risk		
BIOAEROSOL RISK POINTS (SOURCE)	**Probability of exposure**	**Consequences of Exposure**	**Overall risk**	**Risk Management**	**Residual risk**	**Justification of residual risk**
What is the process potentially generating bioaerosol?	*How likely is this contact?*		*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?*	
BRP3 Digestate storage and lagoons: Open digestate storage lagoons Surface agitation and mixing operations Pumping and transfer systems	MEDIUM for sensitive receptors due to open storage and wind dispersion potential	MEDIUM due to bioaerosol generation from liquid surfaces	**MEDIUM for sensitive receptors**	• Lagoon operations scheduled considering meteorological conditions. • Minimal agitation during high winds toward sensitive receptors. • Regular monitoring of lagoon levels to prevent overfilling. • Prompt maintenance of pumping systems and pipework. • Surface management to minimize exposed liquid surface area. • Instrumentation monitoring to prevent system failures.	**LOW**	Meteorological considerations in operations planning. Surface area management reduces emission potential. Distance to residential receptors provides dilution and dispersion.

Identification of potential Harm				Managing the Risk		
BIOAEROSOL RISK POINTS (SOURCE)	**Probability of exposure**	**Consequences of Exposure**	**Overall risk**	**Risk Management**	**Residual risk**	**Justification of residual risk**
What is the process potentially generating bioaerosol?	*How likely is this contact?*		*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?*	
BRP4 Digestate handling and dispatch: Vehicle loading operations Digestate transfer and pumping Dispatch activities with vehicle movements	LOW for sensitive receptors due to containment during loading and distance	MEDIUM due to handling of liquid digestate	**LOW for sensitive receptors**	• Enclosed loading systems to minimize exposure during transfer. • All dispatch vehicles covered during transport. • Site personnel supervision of loading operations. • Immediate cleanup of spillages during transfer operations. • Proper PPE for operators handling digestate. • Regular maintenance of pumping and transfer systems to prevent leaks.	**LOW**	Controlled loading operations with containment. Short duration activities. Covered transport vehicles prevent offsite emissions during dispatch.

Identification of potential Harm				Managing the Risk		
BIOAEROSOL RISK POINTS (SOURCE)	**Probability of exposure**	**Consequences of Exposure**	**Overall risk**	**Risk Management**	**Residual risk**	**Justification of residual risk**
What is the process potentially generating bioaerosol?	*How likely is this contact?*		*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?*	
BRP5 Maintenance and cleaning: Equipment maintenance and servicing Cleaning operations with wash-down systems Process equipment inspections	VERY LOW for sensitive receptors due to controlled operations and distance	LOW due to limited bioaerosol generation potential	**VERY LOW for sensitive receptors**	• Maintenance activities under Permit to Work procedures. • Proper isolation of equipment before maintenance. • Use of appropriate PPE and safety equipment. • Wash-down to safe locations after cleaning operations. • Regular equipment inspections to prevent failures. • Safety showers and spill kits available for emergency response.	**VERY LOW**	Controlled maintenance procedures with proper isolation. Limited bioaerosol generation potential from cleaning activities. Distance provides additional protection.

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