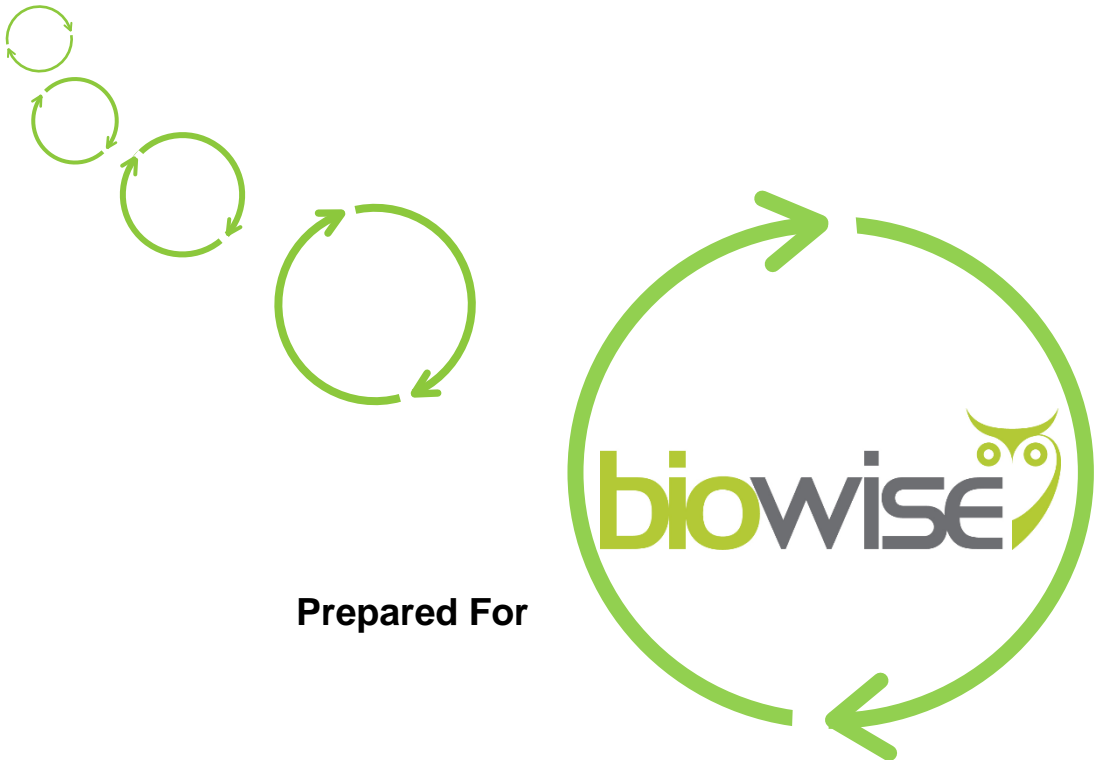




H1 RISK ASSESSMENT

FINAL





Prepared For

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1.0 INTRODUCTION

1.1 Site Address

Biowise Ltd
Albion Lane,
Willerby,
Hull,
East Yorkshire,
HU10 6TS

1.2 Operational Locations

Site Grid Reference: 500500, 431896 (IVC Facility)

Site Grid Reference: 501172, 431336 (OWC, ASP, Wood and Soils)

1.3 Description

The site is located in Willerby, 7km west of Hull and approximately 14km from the M62. Willerby is situated approximately 2km to the south east of the site and Beverley 8km to the north east. Access to the site is via Albion Lane.

The site is split by Westfield Road into a northern and southern portion of the site. The northern area consists of an in-vessel composting (IVC) facility treating food and green wastes through an enclosed vessel tunnel system. The southern area of the site consists of open windrow composting, wood recycling and soils manufacture.

1.4 Permit Application

Biowise Ltd (Biowise) is seeking permission to include a new treatment technique for the composting of organic waste materials in open systems. The site is currently permitted to treat green waste materials and sanitised green and food waste materials through an open windrow composting process. The proposed variation is to include aerated static piles as an option for treating this material in open systems. The facility falls within the remit of the Industrial Emissions Directive (IED).

1.5 Assessment Process

This Environmental Risk Assessment gives a four-step process for assessing the site activity and the risk to local amenity:

1. Identification of risks from the scheduled activities;
2. Completion of risk assessments for these activities;
3. Definition of appropriate measures to control these (if needed); and
4. Presentation of the assessment.

This risk assessment will identify people or parts of the environment that could be harmed by the activity and carry out risk assessments for:

- Odour;
- Noise and vibration;
- Fugitive emissions (including dust and pests); and
- Visible plumes

The risk assessment provided is for the addition of the ASP process bays only. Previous risk assessments have considered the impact of the IVC, OWC and wood processing activities.

2.0 RISK ASSESSMENT

Pollutant Model			Judgement				Action	
Source	Pathway	Receptor	P	C	M	Justification of Magnitude	Risk Management	Residual Risk
Odour from loading ASP bays. ORP Plan (8)	Aerial dispersion.	Local Residents	Med	Med	Med	Fairly probable for odour to occur on biowaste facilities. Material handling is undertaken outdoors.	Site operated in line with best management practices. Odour Management Plan detailing odour management controls (BIO04). Material loaded is either fresh green waste or sanitised material from the IVC which has been treated and cooled to <25°C.	Low
	Wind to N (16%)	Eppleworth Wood Farm						
	Wind to N-NE (16%)	Bungalow Cottage						
	Wind to NE (6%)	Green Lane Farm						
	Wind to N-E (21%)	White House Farm						
	Wind to SE (6%)	Albion Mill						
	Wind to S (16%)	Church Farm						
	Wind to S-SW (38%)	Rawdales Farm						
	Wind to SW-W (47%)	Golf Course						
Odour from aerated static piles. ORP Plan (8)	Aerial dispersion.	Local Residents	Med	Med	Med	Fairly probable for odour to occur on biowaste facilities. Odour annoyance will be higher during summer months when receptors are outdoors.	Site operated in line with best management practices. Odour Management Plan detailing odour management controls (BIO04).	Low
	Wind to N (16%)	Eppleworth Wood Farm						
	Wind to N-NE (16%)	Bungalow Cottage						
	Wind to NE (6%)	Green Lane Farm						
	Wind to N-E (21%)	White House Farm						
	Wind to SE (6%)	Albion Mill						
	Wind to S (16%)	Church Farm						
	Wind to S-SW (38%)	Rawdales Farm						
	Wind to SW-W (47%)	Golf Course						
Odour from the unloading of ASP bays. ORP Plan (8)	Aerial dispersion.	Local Residents	Med	Med	Med	Fairly probable for odour to occur on biowaste facilities. Odour annoyance will be higher during summer	Site operated in line with best management practices. Odour Management Plan detailing odour management controls (BIO04).	Low
	Wind to N (16%)	Eppleworth Wood Farm						

Pollutant Model			Judgement				Action	
Source	Pathway	Receptor	P	C	M	Justification of Magnitude	Risk Management	Residual Risk
	Wind to N-NE (16%)	Bungalow Cottage				months when receptors are outdoors.	Material fully aerated prior to unloading and having completed the maturation phase.	
	Wind to NE (6%)	Green Lane Farm						
	Wind to N-E (21%)	White House Farm						
	Wind to SE (6%)	Albion Mill						
	Wind to S (16%)	Church Farm						
	Wind to S-SW (38%)	Rawdales Farm						
	Wind to SW-W (47%)	Golf Course						
Airborne dust particulates from the transport of wastes. ORP plan (8)	Deposition from air.	There are no residential properties within 250m of the ASP bays.	Med	Low	Med	Potential for frequent and long term exposure for people working close to the site (apart from licence holder/operator and employees). There are no residential properties within 250m of the ASP bays.	Waste materials will have high moisture content so the production of dust will be minimal. No sensitive receptors within 250m of ASP bays. Prior to unloading the material will be assessed for moisture content, any material considered dry, by grip test, will be wetted with clean water. Daily site inspections.	Low
Scavenging birds and animals. ASP bays.	Air transport and over land	There are no residential properties within 250m of the ASP bays.	Low	Med	Med	Scavenging birds and vermin attracted to site and affecting neighbouring businesses. No places of work within 250m of the site boundary.	Fugitive Emissions Management Plan details process for dealing with source. Hire of professional pest controllers as required.	Low
Fugitive releases of litter. Open windrow site plan (6)	Air transport.	There are no residential properties within 250m of the ASP bays.	Low	Low	Med	Local residents/local farmers/local businesses sensitive to litter and likely to complain. No places of work within 250m of the site boundary.	Waste are inspected on arrival and turned away if contamination levels exceed levels stated in the sites Management System. Daily inspection of site and removal of litter. Installation of litter nets as required. No receptors within 250m of open windrows activities.	Low
Pests e.g. flies. OWC/ASP site and IVC site.	Air transport and over land.	There are no residential properties within 250m of	Low	Med	Med	Insect pests can multiply on some permitted waste types particularly in summer months.	Fugitive Emissions Management Plan details process for dealing with source. Control of pests through a pest control contractor as required. Housekeeping.	Low

Pollutant Model			Judgement				Action	
Source	Pathway	Receptor	P	C	M	Justification of Magnitude	Risk Management	Residual Risk
		the ASP bays.				No places of work within 250m of the site boundary.		
All on site hazards particularly relating to waste handling and storage activity.	Direct physical contact.	There are no residential properties within 250m of the ASP bays.	Low	Med	Med	Waste types are non-hazardous therefore only low risk.	No public access to the site. Site access gated and locked during out of hours. Signs outlining onsite risks. All wastes to be accepted are non-hazardous.	Low
Leachate from material with high organic content. Produced from waste materials stored and processed. ASP bays.	Direct run off from processing in ASP bays.	No surface waters within 1km of site boundary	High	Med	Med	There are no surface waters within 1km of the site boundary.	Impermeable concrete hardstanding on ASP bays. Sealed drainage system servicing all areas. No point source emissions. Accident management plan outlines emergency procedures. There are no surface waters within 1km of the site boundary.	Negligible
Leachate with high organic content generated from tank failure or direct runoff as above. ASP bays.	Permeate flow through soil.	Ground Water	High	High	High	Site located within a groundwater source protection zone (SPZ) 2.	Impermeable concrete hardstanding on ASP bays. Sealed drainage system servicing all areas. No point source emissions. Accident management plan outlines emergency procedures.	Low
Fire on site leading to run off from polluted firefighting waters from all waste processing areas. All site areas.	Direct and indirect run off.	Ground Water	Med	High	Med	Fires can be deliberate or accidental. Although high in moisture content compost can combust if not monitored and managed.	Impermeable concrete hardstanding on ASP bays. Sealed drainage system servicing all areas. No point source emissions. Routine temperature monitoring of compost piles to manage internal temperatures to prevent spontaneous combustion. Accident management plan outlines emergency procedures.	Low
Visual plumes from waste activities	Visual	Local residents	N/A	N/A	N/A	No plumes produced as combustion does not take place on site.	Not applicable – screened out.	None
P = Possibility C = Consequence M = Magnitude								

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