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VALENCIA WASTE MANAGEMENT LTD

APPLICATION TO VARY PERMIT NUMBER EPR/BV4517IM

ACCIDENT AND AMENITY RISK ASSESSMENT

APRIL 2023

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PREPARED BY:

Alison Cook Technical Director



APPROVED BY:

Andy Belton Technical Director



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CONTENTS

1	INTRODUCTION	1
2	RECEPTORS.....	1
3	RISK ASSESSMENT AND MANAGEMENT	4
4	CONCLUSION.....	9

1 INTRODUCTION

- 1.1.1 Wardell Armstrong have been appointed to prepare an application to vary the permit for Masons Landfill at Great Blakenham near Ipswich. The site is operated by Valencia Waste Management Ltd (Valencia) under permit number EPR/BV4517IM.
- 1.1.2 The site is permitted to accept non-hazardous commercial, industrial and household waste as well as having a separate cell for asbestos.
- 1.1.3 Valencia is seeking to move waste up the waste hierarchy by treating mixed non-hazardous waste arriving at the landfill to recover materials for recycling. The waste will be further treated to remove non-combustible material from the combustible waste before it is sent off site for energy recovery. The residual waste will be used in landfill engineering or will be placed in the landfill.
- 1.1.4 Overall the scheme is seen as being beneficial to the environment by diverting waste away from landfill and saving natural resources by increasing recycling of metals, wood, plastic and inert waste and improving energy recovery.
- 1.1.5 Nevertheless, it is important that this is achieved whilst preventing any significant impacts on local residents and businesses or wildlife. This report provides a risk assessment to support the variation application.
- 1.1.6 No asbestos will be treated. The measures in place for the safe disposal of asbestos into a dedicated cell within the landfill will continue.
- 1.1.7 Section 2 outlines the site setting and the possible receptors in the vicinity.
- 1.1.8 Section 3 provides a table identifying the potential risks posed by the site and setting out the control measures in place to break to source, pathway, receptor linkage and protect the environment.

2 RECEPTORS

- 2.1.1 Masons landfill lies approximately 3.5km northwest of the town of Ipswich in Suffolk. The landfill lies to the west of the village of Great Blakenham in a mainly agricultural setting.
- 2.1.2 The site is not considered to be in a particularly sensitive location. The main landfill lies to the north and northwest of the Materials Recycling Facility (MRF) building. Beyond that is mainly agricultural land with fields to the north, south and west. To

the southeast is an industrial estate with industrial and commercial properties. The closest of these is approximately 350m from the MRF building. Google Map images accessed in February 2023 suggest that the industrial estate is under development with active construction works likely to be ongoing.

- 2.1.3 The closest businesses are a fabricator and scrap metal yard not far from the landfill entrance. These businesses would not be considered sensitive but may themselves be possible sources of noise and dust.
- 2.1.4 The closest residential receptors are at Cottage Farm, approximately 430m to the southwest, and the residential area of Great Blakenham, approximately 700m to the east of the MRF.
- 2.1.5 The Stour and Orwell Estuary SPA and Ramsar site has been identified as being within 10km of the site. There are also a number of protected habitats within 2km of the site including 2 SSSIs and various areas of ancient woodland, semi-improved grassland, coastal and flood plain grazing marsh, lowland calcareous grassland and deciduous woodland.
- 2.1.6 The SPA/Ramsar site is almost 10km away and is not considered to be at risk from a simple waste shredding and sorting operation. The closest SSSI is of geological interest and therefore not considered vulnerable. The second SSSI provides a home to a wide range of flora and a number of species of bat. As the SSSI is 900m away it is not considered to be particularly vulnerable with any potential impacts mitigated by the distance.
- 2.1.7 The closest protected habitat is an area of lowland calcareous grassland immediately to the south of the landfill site and around 60m from the MRF.
- 2.1.8 The River Gipping lies around 1,200m to the east of the MRF and may provide habitat for bullhead, eels and water voles, all of which are protected species. Again, the distance will provide a degree of protection and the river is not considered vulnerable to potential impacts.
- 2.1.9 Table 2.1, below, sets out the receptors in greater detail.

Table 2.1 Receptors		
Receptor Type	Receptor	Approximate Distance and Direction
Residential/commercial	Cottage Farm/ Tossier Chocolate Factory	430m Southwest
Residential	Houses on Bamford Road	720m east
Residential	Houses on Wainwright Gardens	650m northeast
Residential	Valley Barn Bungalow Farm with House/s	970m southwest
Commercial	Omega Ingredients	350m southeast
Commercial	Persimmon Homes	400m southeast
Commercial	Heron IT	420m southeast
Commercial	Messina Hembry	430m southeast
Commercial	Burghland Technology	380m southeast
Industrial	Ipswich Fabrications	270m east
Industrial	Scrap yard	280m east
Leisure	Blue Circle Playing Field	520m east
Protected Habitat	Stour and Orwell Ramsar Site	9.8km southeast
Protected Habitat	Stour and Orwell Special Protection Area	9.8km southeast
Protected Habitat	Little Blakenham Pit SSSI	900m southwest
Protected Habitat	Great Blakenham Pit SSSI (3 units)	200m southeast 720m northwest and 1100m northwest
Protected Habitat	Great Blakenham Pit CWS	50m south
Protected Habitat	Great Blakenham Church Yard	900m northeast

Table 2.1 Receptors		
Receptor Type	Receptor	Approximate Distance and Direction
Protected Habitat	Shrubland Park	1.8km northwest
Protected Habitat	Hogfield Grove	720m southwest
Protected Habitat	Barham Pits	990m northeast
Protected Habitat	Cubitts Pit	1.5km south
Protected Habitat	Nut Tree Cottage Meadow	1.35km southwest
Protected Habitat	Little Pendles	1.8km northwest
Protected Habitat	RNR 119, RNR 144 and RNR165	1.4km southwest, 1.3km southeast and 1.8km east
Protected Habitat	Baylham Churchyard	1.93km northwest
Protected Habitat	Suffolk Water Park	1.37km southeast
Protected Habitat	Great Wood Ancient Woodland	850m northeast
Protected Habitat	Valley Lodge Meadow	1.17km southwest
Protected Habitat	Column Field Upper Quarry	540m west at closest point.
Protected Habitat	River Gipping (Sections)	1.2km east

3 RISK ASSESSMENT AND MANAGEMENT

3.1.1 For the receptors outlined above to be at risk there must be a source of pollution (including noise) and a pathway by which that pollution can reach the receptor. Management of the risks will have two elements, reducing the source of pollution by good management of the site, for example limiting the quantity of waste, and the period for which it is stored and placing control measures in place to break the pathway and prevent pollution reaching the receptors, e.g. providing a sealed drainage system.

- 3.1.2 Table 3.1 identifies the risks and describes the control measures in place to ensure that impacts on the receptors are minimised.
- 3.1.3 All staff will receive initial training to ensure they are aware of the EMS and familiar with those sections relevant to their role. Refresher training will be given as needed.
- 3.1.4 Records will be maintained of all complaints, incidents and near misses. These will be reviewed annually to identify trends and inform improvements to the EMS.
- 3.1.5 Daily inspections will be made around the outside of the MRF to ensure that dust, noise, odour and litter are being effectively controlled. Should these inspections indicate that emissions are occurring the site manager will be informed, the cause will be investigated and suitable mitigation will be instigated.
- 3.1.6 Should it be that the mitigation will require significant investment of resources and may take some time, this will be communicated to local businesses and residents explaining the measures to be implemented and the likely timescales. The public are offered the opportunity of a local liaison group and meetings will be held at a frequency led by the local community.

Table 3.1: Risks to the Environment and Mitigation Measures

Hazard	Receptor	Pathway	Risk management techniques	Probability of exposure with risk management in place	Consequence
Litter	Local wildlife and local residents	Windblown	All vehicles carrying waste to the MRF to be enclosed or sheeted. Waste unloaded inside building with doors closed. Waste stored and treated inside building. Any litter to be collected daily and placed in the appropriate bay inside the building.	Low	Detriment to the amenity of the local area. Potential harm to wildlife. Nuisance
Dust	Local residents and local businesses	Windblown	Sorting and screening carried out inside a building. Site roads properly maintained and swept as necessary. Wheelwash available and to be used as needed. Dust damped down if required in dry weather Plant properly maintained and serviced to minimise emissions. Dust Management Plan in place.	Low	Nuisance. Potential harm to health
Noise	Local residents and local businesses	Airborne	Sorting and screening carried out inside building. Machinery properly maintained and serviced and turned off when not in use. Good traffic management around the site to minimise reversing and idling.	Low	Disturbance
Odour	Local residents and local businesses	Airborne	Waste stored and treated inside buildings. Waste treated on first in first out basis with RDF, fines and residual waste removed within 72 hours of receipt. No putrescible waste to be treated.	Low	Nuisance

Table 3.1: Risks to the Environment and Mitigation Measures

Hazard	Receptor	Pathway	Risk management techniques	Probability of exposure with risk management in place	Consequence
Emissions to groundwater	Groundwater beneath the site	Infiltration through the ground	Waste storage and treatment areas fitted with impermeable surfacing and sealed drainage to prevent fugitive emissions. Waste is stored and treated inside the MRF building minimising rainwater infiltration. Measures in place to contain firewater. Liquids (eg oil for plant maintenance) stored in appropriate containers with secondary containment.	Low	Pollution of groundwater
Emissions to surface water	Local water courses potential to reach River Gipping.	Infiltration through the ground or run-off direct to surface water / drains from leakages	Waste storage and treatment areas indoors and provided with impermeable surfacing and sealed drainage. Sleeping policeman at entrance to prevent any liquid leaving the building. Liquids (eg oil for plant maintenance) stored in appropriate containers with secondary containment.	Low	Pollution of surface water potential impact on protected species.
Emission of nitrogen oxides to air	Local residents and workers	Airborne	Plant serviced and maintained in accordance with manufacturer's recommendations. Compliance with NRMM regulations. Where plant is replaced, lower emissions models chosen where practicable.	Low	Harm to human health
Fire	Local residents or workers	Through the air	Waste to be stored in bays with fire resistant bay walls and 1m headroom to minimise risk of fire spreading.	Low	Smoke poses a potential health risk

Table 3.1: Risks to the Environment and Mitigation Measures

Hazard	Receptor	Pathway	Risk management techniques	Probability of exposure with risk management in place	Consequence
			<p>Quantity of flammable waste in line with EA Fire Prevention Plan guidance, waste treated in 72 hours to avoid self-heating. RDF and fines to be removed from site within 72 hours.</p> <p>Good housekeeping with fire watch at end of day and in case of hot works.</p> <p>Fire detection and suppression systems fitted in building.</p> <p>Fire prevention Plan in place.</p>		
Fire water	Groundwater beneath the site and local water courses.	Infiltration through soil or surface water run-off	The site is provided with impermeable surfacing and sealed drainage. Ability to store water in sealed sump and on the building floor.	Low	Pollution of groundwater or surface water
Plant breakdown	Local residents or workers or groundwater and surface water.	Air and /or water pollution depending on nature of breakdown	<p>Preventative maintenance programme in place to ensure all plant and infrastructure is inspected, serviced and maintained.</p> <p>Damaged plant or infrastructure taken out of service until repaired by a competent person.</p> <p>Waste treatment inside building with impermeable pavement to provide containment.</p> <p>Staff training. Only competent staff to operate machinery.</p>	Low	Noise or pollution as result of breakdown.

4 CONCLUSION

- 4.1.1 The MRF has been located on the landfill so as to be away from the boundary closest to the residential area of Great Blakenham. Sensitive human receptors are over 300m away so dust and noise are likely to dissipate before reaching them.
- 4.1.2 Measures are in place to minimise the risk of emissions from the site with all operations contained inside a building. The site will operate in accordance with a written Environmental Management System including a Dust Management Plan, Fire Prevention Plan and Odour Management Plan.
- 4.1.3 There are County Wildlife Sites close to the site but measures put in place to contain leachate, dust and litter will minimise the potential impacts.
- 4.1.4 The MRF will operate in line with guidance on the best available techniques for waste treatment.
- 4.1.5 The operation of the MRF is not expected to increase the risk over and above that already present due to the operation of the permitted landfill.

STOKE-ON-TRENT

Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)1782 276 700

BIRMINGHAM

Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

BOLTON

41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)1204 227 227

BRISTOL

Temple Studios
Temple Gate
Redcliffe
Bristol
BS1 6QA
Tel: +44 (0)117 203 4477

BURY ST EDMUNDS

Armstrong House
Lamdin Road
Bury St Edmunds
Suffolk
IP32 6NU
Tel: +44 (0)1284 765 210

CARDIFF

Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE

Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)1228 550 575

EDINBURGH

Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW

24 St Vincent Place
Glasgow
G1 2EU
Tel: +44 (0)141 428 4499

LEEDS

36 Park Row
Leeds
LS1 5JL
Tel: +44 (0)113 831 5533

LONDON

Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE

City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

TRURO

Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International office:

ALMATY

29/6 Satpaev Avenue
Hyatt Regency Hotel
Office Tower
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310