

Risk Assessment 203162/H1ERA

Table 1. Assessment of odour risks

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
<p>Odour from mixed waste streams, inerts, wet waste, and asbestos containing wastes. Odour emissions from:</p> <ul style="list-style-type: none"> • Treatment and storage of mineral and wet wastes (Area 1) • Treatment and storage of HCl skip waste, picking line and trommel and physical treatment of inerts/excavations arisings (Area 2) • Storage of asbestos waste (Area 3) 	<p>Residential properties along Parkinson street.</p> <p>Workers on site.</p> <p>Staff and visitors of the industrial and commercial properties surrounding the site.</p>	<p>Nuisance and loss of amenity value.</p>	<p>Atmospheric (fugitive). Air transport then inhalation.</p>	<p>Low</p>	<p>Medium</p>	<p>Low</p>	<p>Waste types being imported are all non-odorous and low putrescible content.</p> <p>If uncontrolled the storage and processing of wastes may cause fugitive escape of odour or gases/vapours.</p> <p>Operations and storage of material in Area 1 will be within a full enclosure, reducing potential odour emissions.</p> <p>Non-hazardous wastes in Area 2 waste materials will be stored in 3-sided enclosure which will minimise odour emissions to surrounding receptors. Area 3 asbestos waste will be stored in sealed skips.</p>	<p>Strict waste acceptance procedures and controls on the type of waste streams accepted.</p> <p>Recording of any complaints and implementing controls, as outlined in the Operational Plan and Technical Standard (OP).</p> <p>If wastes become odorous during storage, they shall be covered with other wastes, or treated as a priority to prevent adverse impacts</p>	<p>Low</p>

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Table 2. Assessment of noise and vibration risks

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
Noise and vibration emissions from haulage, storage and treatment of waste.	<p>The surrounding land is predominantly industrial and commercial</p> <p>Residential properties along Parkinson street.</p> <p>Commercial and Industrial warehouses surrounding the site.</p>	Levels of noise that cause loss of amenity and nuisance to users and residents in the locale.	Airborne	Low	Medium	Low	<p>The site activities occur in a predominantly industrial and commercial land use area.</p> <p>The site is an existing facility within an industrial surrounding area. A noise assessment has been undertaken and considered low.</p> <p>Works will adhere to normal operating hours.</p>	<p>All operatives inducted on the requirement to reduce noise emissions and adherence to the site OP and Noise Management Plan.</p> <p>All plant and vehicles will meet current guidance and will be maintained in line with manufacturer's requirements.</p> <p>All equipment and vehicles, when not in regular use, shall be switched off.</p> <p>The majority of waste operations are under enclosure.</p>	Low

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Table 3. Assessment of fugitive emissions (other than odour, noise and vibration)

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
To Air									
Dust from vehicle operations on site. Dust and asbestos fibre from operations, storage, handling and treatment of waste streams.	The surrounding land is predominantly Industrial and commercial	Harm to human health, respiratory irritation and illness.	Airborne then inhalation.	Low	Medium	Low	Operations have the potential to generate dusts from off-site movements during prolonged dry periods.	All controls will be in accordance with the TOP, Asbestos Management Plan and PEMP.	Low
	Residential properties along Parkinson street. Commercial and Industrial warehouses surrounding the site. Priority habitat north of River Don. River Don.	Nuisance – deposit on cars, homes, clothing etc.	Airborne then deposit.	Very Low	Low	Very Low			

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Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
To Controlled Waters									
Run-off from site surfaces or spillages.	River Don (surface water). Principal Aquifer (groundwater). Yorkshire Water foul / surface water system.	Passive leaching to ground or existing land drains, from contamination or spillages on hardstanding surface and directly entering drainage system.	Land then surface water drainage systems.	Medium	High	Medium	All operations and storage will be on impermeable concrete drainage system. Permitted waste types do not include leachates or liquids. Site runoff will be collected and treated via silt trap and petrol interceptor prior to discharge. No discharge to aquifer or River Don.	Controls on types of wastes accepted. Waste will be placed within each appropriate designated site area. All fuel storage areas will be bunded to 110 % capacity. Spill kits will be provided on site. Inspection and management regime as per TOP. All staff and operatives will be trained as per pollution prevention requirements.	Low
Run-off and infiltration from site surfaces or spillages.	Potentially isolated and localised groundwater underlying site.	Pollution to aquifer.	Land infiltration through free draining hardstanding.	Medium	High	Medium	All waste streams to be stored on impermeable surfacing with a sealed drainage system. Permitted waste streams are unlikely to contaminate groundwater.	Controls on types of wastes accepted and placed on site. All fuel storage, areas will be bunded to 110 % capacity. All staff and operatives will be trained as per	Low

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Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
							<p>Site runoff will be collected and treated via silt trap and petrol interceptor prior to discharge.</p> <p>No discharge to aquifer or River Don.</p>	<p>pollution prevention requirements.</p> <p>Operational activities to be undertaken on impermeable surfacing and will reduce infiltration to underlying groundwater.</p>	
Process water to foul sewer system	Potentially isolated and localised discharge during 'bleeding' of system to foul sewer network.	Pollution to Yorkshire Water foul sewer system.	Process water from wash plant direct to sewer system via treatment.	Medium	High	Medium	<p>The soil washing system is a closed loop system and will be operated in accordance with manufacturer's recommendations.</p> <p>In the event of a water system upgrade or 'bleed', water may be discharged to sewer in agreement with Yorkshire Water.</p> <p>There is no mixing of process water from Area 1 washing and surface water. This minimises risk of pollution and volume of potential periodic discharge.</p> <p>No discharge to aquifer or River Don.</p>	<p>Controls on types of wastes accepted and placed on site.</p> <p>All staff and operatives will be trained as per pollution prevention requirements.</p>	Low
Mud and litter									
Litter from storage areas and mud from site operation.	Human (as per odour) and fauna.	Nuisance, loss of amenity and reduced safety.	Air and land.	Low	Medium	Low	<p>All vehicle deliveries and dispatch, site operations on impermeable surfacing.</p> <p>Site is accessed from a long haulage route.</p>	<p>All visible litter on site boundaries will be cleared as soon as practicable.</p> <p>Internal and external haulage routes will be maintained by mechanical sweeping to ensure mud is not generated.</p>	Low

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Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
								<p>Inspection and corrective action regime will be undertaken in line with site management system.</p> <p>All controls will be in accordance with the TOP and PEMP.</p>	
Pests and vermin									
Storage of waste attracting pests and vermin.	Human (as per odour) There are no SSSIs, LNRs, NNRs, SACs, SPAs or Ramsar Sites within 2 km of the site.	Can cause increase populations and infestations of rats, mice, flies and other vermin. Result is harm to health, loss of amenity and nuisance.	Air transport and overland.	Low	Low	Low	Waste types being imported are all non-odorous and low putrescible content.	As per TOP, management and control on wastes accepted. Inspection of site by Site Manager on frequent basis. Implementation of controls as required.	Low

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Table 4. Foreseeable Accident risk assessment and management

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
Fire (accidental, arson) and smoke.	<p>Humans (as per odour) and environment.</p> <p>Wharf Road and the surrounding industrial land use.</p> <p>There are no SSSIs, LNRs, NNRs, SACs, SPAs or Ramsar Sites within 2 km of the site.</p> <p>Residential properties along Parkinson street.</p> <p>Workers on site.</p>	Damage and loss of amenity, nuisance and carcinogenic particulates.	Direct contact, airborne.	Low	Severe	Medium	<p>In the event of major incident there is a serious health risk.</p> <p>The only fire risk from waste is in Area 2. The volumes are considered relatively low.</p> <p>Water storage capacity is sufficient.</p>	<p>No wastes will be burned on site.</p> <p>All storage of waste and plant in accordance with TOP and the maintenance plan. Detailed information in the Fire Prevention Plan.</p> <p>The site layout aims to permit ready access by fire vehicles.</p> <p>The management of the waste has been developed in line with industry guidance to minimise volumes to manageable sizes.</p> <p>Incidents recorded in the Site Diary.</p>	Low
Spillage of fuels, oils or polluting material.	Soil, surface waters and groundwater.	Pollution and/or contamination.	Land and drainage systems.	Low	High	Medium	<p>Oils and fuels will be locked in a sealed container, when not in use.</p>	<p>The Site Emergency Plan will incorporate spillage controls.</p> <p>Spill kits will be maintained on site. Refer to the OP and FPP.</p> <p>All staff will be trained on controls.</p>	Low
Spillage of waste.	<p>Human health (as per odour), surface water drainage, groundwater.</p> <p>Wharf Road and the surrounding industrial land use.</p> <p>There are no SSSIs, LNRs, NNRs, SACs,</p>	Loss of amenity and nuisance, pollution and/or contamination.	Land, drain and air.	Low	High	Medium	<p>Uncontrolled release could cause health or pollution issues.</p>	<p>All vehicles accessing the site will be sheeted or fully enclosed.</p> <p>Unloading and loading will be controlled at all times.</p> <p>Incidents recorded in the Site Diary.</p>	Low

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Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
	<p>SPAs or Ramsar Sites within 2 km of the site.</p> <p>Residential properties along Parkinson street.</p> <p>Workers on site.</p>								
<p>Direct physical contact between humans and all wastes, machinery and vehicles.</p> <p>For asbestos risk, see Table 5.</p>	<p>Human health (site operatives and local population).</p> <p>Wharf Road and the surrounding industrial land use.</p> <p>There are no SSSIs, LNRs, NNRs, SACs, SPAs or Ramsar Sites within 2 km of the site.</p> <p>Residential properties along Parkinson street.</p> <p>Workers on site.</p>	Bodily harm.	Direct contact.	Medium	High	Medium	No public access during works.	<p>Activities to be managed in accordance with site health and safety management system.</p> <p>Access to wastes to be restricted to trained and competent personnel.</p> <p>Delineation of activities and personnel.</p>	Low

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Table 5. Assessment of fugitive fibre emissions (other than particulates)

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
To Air									
<p>Fugitive emissions of fibres from incoming waste streams transported to Area 3.</p> <p>Fugitive fibre emissions from storage.</p>	<p>Human Health (as per odour)</p> <p>Wharf Road and the surrounding industrial land use.</p> <p>There are no SSSIs, LNRs, NNRs, SACs, SPAs or Ramsar Sites within 2 km of the site.</p> <p>Residential properties along Parkinson street.</p> <p>Workers on site.</p>	<p>Harm to human health, respiratory irritation and illness.</p>	<p>Airborne then inhalation.</p>	<p>High</p>	<p>High</p>	<p>Medium</p>	<p>Risk from inherent nature of the activity i.e. working with asbestos.</p>	<p>All controls will be in accordance with the OP, Asbestos Management Plan and Particulate Emissions Management Plan.</p> <p>PPE / RPE will be in accordance with HSE Guidance.</p> <p>ACM waste will be stored within sealed skips, and accepted material should be double bagged. There is no treatment and will be less than 10 tonnes.</p>	<p>Low</p>

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Table 6. Assessment of flood risk

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
Flood risk causing pollution or danger to users	Human Health (as per odour). River Don. Underlying aquifer. Wharf Road and the surrounding industrial land use. There are no SSSIs, LNRs, NNRs, SACs, SPAs or Ramsar Sites within 2 km of the site. Workers on site.	Harm to human health and surrounding environment.	Fluvial or pluvial.	High	High	Medium	The site is existing and has always been in Flood Zone 3. It is afforded flood defence protection within an existing industrial area. There are no habitable land uses. The site will be locked and secure out of hours.	The Site Manager will be signed up to EA Flood Alerts. All mobile plant and COSHH storage including fuels, oils and chemicals will be locked up at the end of each working day or when not in use.	Low