Risk Assessment 193433/H1ERA Area 1, weighbridge, haul route and welfare area

Table 1. Assessment of odour risks

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
Odour from inert and non-hazardous soil wastes. Fugitive emissions from: • Storage activities • Blending and bulking of wastes • Placement of waste • Transfer and delivery activities • Soil washing plant	Motocross facility 100 m south east. Commercial and Industrial warehouses circa 300 m north. The surrounding land is predominantly agricultural land and recreational. Residential properties c. 550 m north. Public pathway c. 470 m east. Priority deciduous habitat and LWS to the north and west of the site within 1 km.	Nuisance, harm to health and loss of amenity value.	Atmospheric (fugitive). Air transport then inhalation.	Low	Medium	Low	Waste types being imported will predominantly be from construction and demolition sites and will not include odour generating wastes (putrescible waste). The waste types are consistent with the Standard Rules 2010 No12 codes.	Strict waste acceptance procedures and controls on the type of waste streams accepted. No other permitted waste types are to be accepted, therefore will not biodegrade to produce offensive odours. Recording any complaints and implementing controls, as outlined in the Operational Plan and Technical Standard (TOP) and OMP. If wastes become odorous during storage, they shall be covered with other wastes, or treated as a priority to prevent adverse impacts	Low

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.	The surrounding land is predominantly agricultural land and recreational. Deciduous woodland priority habitat. Residential dwelling along Old Bawtry road circa 550 m north. Commercial and Industrial warehouses circa 300 m north. Public pathway c. 470 m east. Priority deciduous habitat and LWS to the north and west of the site within 1 km.	Levels of noise that cause loss of amenity and nuisance to users and residents in the locale.	Airborne	Low	Medium	Low	The site activities occur in a predominantly agricultural and recreational land use area. The risk of noise to impact receptors beyond the site boundary is low. No noise complaints have been received within the last 2 years of operation. Works will adhere to normal operating hours.	All operatives inducted on the requirement to reduce noise emissions and adherence to the site OP and NMP. All plant and vehicles will meet current guidance and will be maintained in line with manufacturer's requirements. All equipment and vehicles, when not in regular use, shall be switched off.	Low

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 on and off-site vehicle operations, storage, handling, treatment of waste and haul roads. .	The surrounding land is predominantly agricultural and recreational land. Deciduous woodland priority habitat. Public pathway c. 470 m east. Residential dwelling along Old Bawtry road circa 550 m north Commercial and Industrial warehouses circa 300 m north. Priority deciduous habitat and LWS to the north and west of the site within 1 km.	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. The soil washing process is an inherently wet process. The risk of dust emissions comes from HGV's, dry crushing/screening and material storage. The dry crusher/screener has an integrated misting system.	Implementing controls in accordance with the TOP and PEMP. Frequent road sweeper to mitigate emissions of haul road usage.	Low to very low
		Nuisance – deposit on cars, homes, clothing etc.	Airborne then deposit.	Very Low	Low	Very Low			
To Controlled Waters									
Run-off from site surfaces or spillages.	Surface water drain bordering the north of the site. Austerfield Drain situated approximately 810 m east.	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	Area 1 soil washing plant and feedstock are on a fully sealed system. Dry crushing/screening feedstocks wastes are on compacted hardcore surfacing. The dry crushing wastes are the same as Standard Rules codes. Permitted waste types do not include leachates or liquids.	Controls on types of wastes accepted. Waste will be placed within each appropriate designated site area (Area 1). All fuel storage areas will be bunded to 110 % capacity. Spill kits will be provided on site. Inspection and management regime as per TOP.	Low

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
							No point source emissions from operations or site activities.	All staff and operatives will be trained as per pollution prevention requirements.	
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	Area 1 soil washing plant and feedstock are on a fully sealed system. Dry crushing/screening feedstocks wastes are on compacted hardcore surfacing. The dry crushing wastes are the same as Standard Rules codes. Permitted waste types do not include leachates or liquids.	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 pollution prevention requirements. The majority of the operational activities are to be undertaken on impermeable surfacing and will reduce infiltration to underlying groundwater. The compacted hardcore surfacing will only have dry crushing / screening of inerts on.	Low
Mud and litter									
Litter from storage areas and mud from site operation.	Humans (as per odour) and fauna.	Nuisance, loss of amenity and reduced safety.	Air and land.	Low	Medium	Low	Permitted wastes have low litter potential as waste is mainly C&D origin. All vehicle deliveries and dispatch, site operations on impermeable surfacing.	All visible litter on site boundaries will be cleared as soon as practicable. Internal and external haulage routes will be maintained by mechanical sweeping to ensure mud is not generated. Inspection and corrective action regime will be	Low

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
								undertaken in line with site management system.	
Pests and vermin									
Storage of waste attracting pests and vermin.	Human	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 over land.	Low	Low	Low	All of the waste has low to negligible risk of organic / litter content to attract pests and vermin.	As per TOP, management and control on wastes accepted. Inspection of site by Site Manager on frequent basis. Implementation of controls as required.	Low

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.	Humans (as per odour) and environment.	Damage and loss of amenity, nuisance and carcinogenic particulates.	Direct contact, airborne.	Low	Severe	Medium	In the event of major incident there is a serious health risk. Area 1 wastes are non-combustible soils only.	No wastes will be burned on site. All storage of waste and plant in accordance with FPP and the maintenance plan. The site layout aims to permit ready access by fire vehicles. The management of the waste has been developed in line with industry guidance to minimise volumes to manageable sizes. Incidents to be recorded in the Site Diary.	Low
Spillage of fuels, oils or polluting material.	Soil, surface waters and groundwater.	Pollution and/or contamination.	Land and drainage systems.	Low	High	Medium	Oils and fuels will be locked in a sealed container, when not in use. The quarantine and COSHH storage / refuelling will be undertaken on the sealed drainage system.	The Site Emergency Plan will incorporate spillage controls. Spill kits will be maintained on site. All staff will be trained on controls.	Low
Spillage of waste.	Human health (as per odour), surface water drainage, groundwater.	Loss of amenity and nuisance, pollution and/ or contamination.	Land, drain and air.	Low	High	Medium	Uncontrolled release could cause health or pollution issues.	All vehicles accessing the site will be sheeted or fully enclosed. Unloading and loading will be controlled at all times.	Low

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Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
								Incidents recorded in the Site Diary.	
Direct physical contact between humans and all wastes, machinery and vehicles.	Human health (site operatives and local population).	Bodily harm.	Direct contact.	Medium	High	Medium	No public access during works.	Activities to be managed in accordance with site health and safety management system. Access to wastes to be restricted to trained and competent personnel. Delineation of activities and personnel.	Low