

All Waste Matters - Whitstable - Environmental Risk Assessment



Data and information					Judgement				Action (by permitting)	
No	Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
1	Local human population	Releases of particulate matter (dusts) vapours and polluting gases. Including release of gases from treatment activities	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	Medium	Waste will be containerised and packaged materials The total quantity of waste on site is minimal <10 tonnes of hazardous waste and <10 tonnes of non-hazardous waste.	Wastes will be stored in the covered waste or in a purpose-built covered storage unit (flammable liquids) All bulking/blending/repackaging activities will carried out inside the warehouse. Fugitive emission from bulking/blending/repackaging will be abated by a suitable carbon scrubber unit Chemical treatment will be limited to 500g increments. Any gas evolution will be abated.	Very low
2	Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Low	Low	Low	As above	As item 1	Very low
3	Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Medium	Low	Local residents often sensitive to litter. Waste will be containerised and packaged materials. The total quantity of waste on site is minimal <10 tonnes of hazardous waste and <10 tonnes of non-hazardous waste.	Wastes will be stored in the covered waste or in a purpose-built covered storage unit Loose waste that can be wind bore will not be accepted on site. The facility will maintain good housekeeping standards and ensure and litter is collected	Very low

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4	Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Low	Medium	Low	<p>Road safety, local residents often sensitive to mud on roads.</p> <p>The facility is located in an industrial estate with road links.</p> <p>Limited unmade ground along the industrial estate access route</p>	<p>The site only accepts small volumes of containerised and packaged wastes.</p> <p>The facility has no sources of mud. Any mud would need to be imported to the site and surrounding roads.</p> <p>The types of vehicle delivering waste to site will be small vans and small goods vehicles which do not typically collect from muddy locations.</p> <p>Any mud which is imported to the site or road as a result of the activities will be cleaned as required</p>	Very Low
5	Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Low	Low	<p>Local residents often sensitive to odour, however permitted waste types have low odour potential.</p>	See odour management plan	Low
6	Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	low	Medium	Low	<p>Local residents often sensitive to noise and vibration</p> <p>The are no sources of vibration from the waste activities.</p> <p>Any vibration will come from vehicle movements related to deliveries and collection</p>	<p>The site only accepts and stores a small volume of waste</p> <p>Vehicles delivering to site will be small vans and goods vehicles</p>	Very Low

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7	Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Very Low	Medium	Low	Permitted wastes unlikely to attract scavenging animals and birds. The warehouse and yard area are unlikely to become nesting / breeding sites.	The waste accepted at site are stored in covered building and lockers. The wastes predominantly packaged small items.	Very low
8	Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Very Low	Medium	Low	Permitted wastes unlikely to attract pests.	The waste accepted at site are stored in covered building and lockers. The wastes predominantly packaged small items.	Very low
9	Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	High	Medium	Hazardous wastes washed off site will add to the volume and hazard of the local post-flood clean up workload.	The site is in a low-risk flood zone The volumes of waste on site will be <10 tonnes and <15 tonnes of non-hazardous waste. The wastes predominantly packaged small items. The waste will be stored in containers and inside buildings or dedicated storage lockers All liquids will be provided with secondary containment	Very low

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10	Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles. Exposure to chemicals including toxic substances	Bodily injury, ill health or death	Direct physical contact	Low	high	Medium	<p>The site does not have large plant or machinery only a small forklift truck and small goods vehicles for delivery</p> <p>The site stores predominantly laboratory smalls which possess a variety of hazards some of which are potentially fatal.</p> <p>These high chemicals are however very small in size and stored in containers</p>	<p>Security of the site will be covered in the sites management system</p> <p>The site will be secured by fencing and an access gate which will be closed and locked when not in use to ensure there is no unauthorised access.</p> <p>The waste will be stored in containers and inside buildings or dedicated storage lockers.</p> <p>All chemicals will be packaged into drum or secured in locked containers when the site is unmanned/non operational</p> <p>All storage areas and lockers will be clearly marked with warning labels to indicate the hazards of the stored materials</p> <p>The site will be fitted with an alarm system to detect any intrusion</p>	Low

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11	Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Medium	Medium	<p>A medium magnitude risk is estimated.</p> <p>The volumes of waste stored are small and secured in containers</p>	<p>As above and additional details below</p> <p>The volumes of waste stored on site are low <10 tonnes and <15 tonnes of non-hazardous waste.</p> <p>Flammable liquids will be stored in a dedicated storage bay and/or a secure flammable storage locker both fitted with secondary containment and fire suppression.</p> <p>The external yard area will be constructed of concrete with sealed drainage and bunded edging to retain any spillage and fire water.</p> <p>The site will store material in compliance with HSG71 (storage and warehousing of dangerous goods) with segregated and bunded storage bays for different hazards</p>	Low
12	Local human population and local environment	<p>Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.</p> <p>Including from chemical treatment activities or</p>	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	High	Medium	High	<p>Due to the small volumes of waste types of activities the consequences of an incident are considered medium.</p> <p>Given the hazardous nature of the waste and the treatment/reaction processes the risk is considered high without suitable control measures in place</p>	<p>All operations will be carried out in compliance with Appropriate Measures (AM). The site management system has been designed to ensure full compliance with AMs.</p> <p>All bulking/blending/mixing operations will be supervised and monitored by a qualified chemist. Where there is the potential for adverse reactions compatibility testing will be carried out to ensure no adverse reactions or temperature changes take place.</p>	Low

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		incompatible chemical reactions							<p>Where required containers will be earthed during bulking/transfer activities</p> <p>Flammable liquids will be stored in a dedicated storage bay and/or a secure flammable storage locker both fitted with secondary containment and fire suppression.</p> <p>The site will store material in compliance with HSG71 (storage and warehousing of dangerous goods) with segregated and bunded storage bays for different hazards</p> <p>All treatment reactions will be subject to a treatment assessment carried out by a qualified chemist.</p> <p>Where treatment is deemed viable a TARS (Treatment Assessment and Reaction Scheme) form will be completed which details the reaction steps and control measures.</p> <p>Chemical treatment reactions will be subject to strict control and will only be carried out under the direct control and supervision of a qualified chemist. The chemist will ensure all equipment and control measures identified in the TARS are in place before treatment begins.</p> <p>Reactions will be limited to 500g increments. Where identified in the</p>	

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									<p>TARS active temperature control and monitoring will be carried out.</p> <p>Any gas evolved during reactions will be capture for use on site or abated by a suitable scrubber medium as identified in the TARS</p> <p>All treatment reactions will take place inside with secondary containment and spillage response equipment.</p>	
13	All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	Medium	Medium	<p>The site handles hazardous wastes but in small, containerised quantities</p> <p>The risk is estimated to be medium</p>	<p>The site stores <10 tonnes and <15 tonnes of non-hazardous waste.</p> <p>The site yard area is concrete with bunded edges and sealed drainage (blind sump). All water/run off falling onto the site yard area will be transferred to a suitable licensed waste treatment facility</p> <p>Due the type of waste and the waste being containerised there essentially no risk of the water from the roof being contaminated The roof drainage to land/soakaway</p> <p>Flammable liquids will be stored in a dedicated storage bay and/or a secure flammable storage locker both fitted with secondary containment and fire suppression.</p> <p>All other wastes are stored inside the warehouse in sealed and bunded bays</p>	Low

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									or within dedicated bunded storage lockers. The warehouse will also be fully bunded via the storage bay walls and sealed kerb edging to non storage bay areas	
14	All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	Medium	As above	Control measures as detailed in item 13 mitigate this risk	Low
15	Abstraction from watercourse downstream of facility (for agricultural or potable use).	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	Medium	Medium	The nearest named surface water body is the swalecliffe brook located 632m east. There are no listed abstractions within 2km	Control measures as detailed in item 13 mitigate this risk	Low
16	Groundwater	Spillage of liquids, leachate from waste, contaminated rainwater run-off from	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	Medium	The site is not located within a source protection zone. The site bed rock is not a water body	Control measures as detailed in item 13 mitigate this risk	Low

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		waste e.g. containing suspended solids.						<p>Permitted waste types include hazardous liquids so harm may not be temporary and reversible.</p> <p>The quantities of hazardous waste on site will be <10 tonnes and predominantly in sealed containers packaged into drums</p> <p>The nearest abstraction borehole is located 126m South East and appear to be a private residence</p>		
17	Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	Low	Unlikely to occur, but might restrict recreational use.	Control measures as detailed in item 13 mitigate this risk	Very low

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18	Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	Low	Waste operations may cause harm to and deterioration of nature conservation sites.	There are 3 SSSI sites within 2000m of site which all form part of the West Blean and Thornden Woods The control measures list in items 9 – 13 will mitigate any risk to these sites	Very Low
19	Local human population and all surface waters close to and downstream of site.	Serious Fire	Nuisance, harm to human health, loss of amenity, deterioration of water quality	Air transport then inhalation or deposition. Direct run off of fire water across site to surface waters.	Low	High	Medium	Waste fires are not common but approximately 300 fires pa linked to waste activities. Impact on health and amenity can be significant for many days or weeks.	Site storage limited to <10 tonnes and <15 tonnes of non-hazardous waste. The site has a fire prevention plan which mitigates the impact of a fire. Control measures detailed in item 11 and 12 also mitigate these risks	Low
20	All surface waters close to and downstream of site.	Serious Fire	Loss of amenity, deterioration of water quality	Direct run off of fire water across site to surface waters.	Low	High	Medium	Waste fires are not common but approximately 300 fires pa linked to waste activities. In event of fire, fire water can be produced for days/ weeks. Contaminated firewater run-off can kill fish and aquatic life.	Site storage limited to <10 and <15 tonnes of non-hazardous waste. The site has a fire prevention plan which mitigates the impact of a fire. Control measures detailed in item 11 and 12 also mitigate these risks	Low