



# Environment Agency Permit Application Environmental Risk Assessment

**Colwick RDF & Transfer Facility**  
JB3304LF



June 2021\_v1.0

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability	Consequence	Magnitude	Justification for	Risk management	Residual risk
<i>What is at risk? What do I wish to protect?</i>	<i>What is the agent or process with potential to cause harm?</i>	<i>What are the harmful consequences if things go wrong?</i>	<i>How might the receptor come into contact with the source?</i>	<i>How likely is this contact?</i>	<i>How severe will the consequences be if this occurs?</i>	<i>What is the overall magnitude of the risk?</i>	<i>On what did I base my judgement?</i>	<i>How can I best manage the risk to reduce the magnitude?</i>	<i>What is the magnitude of the risk after management?</i>
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Low	Low	<b>Low</b>	Permitted waste types do not include dusts, powders or loose fibres so only a low magnitude risk is estimated.	The Facility is operated in accordance with a DEMP which identifies and manages environmental risk associated with dust emissions.	Very low
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols)	Nuisance - dust on cars, clothing etc.	Air transport then deposition.	Low	Low	<b>Low</b>	Staff and property at adjacent units could be sensitive to or impacted by dust.	As above	Very low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	<b>Low</b>	Nearby industrial premises often sensitive to litter.	Wastes which are most susceptible to off site deposition due to the wind are received and stored in the transfer station building.  Wastes received and stored externally are not particularly susceptible to deposition by the wind.  Housekeeping procedures ensure the Facility, including external areas, are kept clean and tidy.	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Low	Low	<b>Low</b>	Road safety, nearby industrial premises could be affected by mud on roads.	Waste types not likely to create mud. All trafficked areas are hardstanding.	Very low

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Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Medium	Medium	<b>Medium</b>	Nearby industrial premises often sensitive to odour.	The Facility is operated in accordance with a OMP which identifies and manages environmental risk associated with odour emissions.  The application is supported by detailed odour modelling.	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	<b>Medium</b>	Nearby industrial premises often sensitive to noise and vibration	The subject Facility is in an industrial location which is less sensitive to noise and is not the dominant local noise source. Noise sources such as pumps and motors associated with processing activities are attenuated as required. All equipment is subject to planned preventative maintenance.	Low
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	Low	Low	<b>Low</b>	Permitted wastes may attract scavenging animals and birds.	Reception and processing of residual wastes are takes place inside a building with fast acting roller shutter doors.  Wastes stored externally are not particularly attractive to scavengers.  A proactive pest contro contract will be in place.	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Low	<b>Low</b>	Insect pests can multiply on permitted wastes, particularly in summer months	Reception and processing of residual wastes are takes place inside a building with fast acting roller shutter doors.  Wastes stored externally are not particularly attractive to flying insects.  A proactive pest contro contract will be in place.	Low
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	Low	<b>Low</b>	Most waste recieved on site non-hazardous so any waste washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.  Small volumes of clinical waste are recieved for transfer, the hazardous component will be restricted to 10 t, but is routinely expected to be much lower.	The Facility is protected against a 1% AEP fluvial flood.  A climate risk screening assessment is carried out for new applications.  The Facility is not succceptible to flooding from surface water, resevoir, canals, the sea or sewer.	Low

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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	<b>Medium</b>	Permitted waste types are low volume but are combustible.	The Facility is operated in accordance with a FPP which identifies and manages environmental risk associated with fire.	Low
Local human population and all surface waters close to and downstream of site.	Accidental fire 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 or firefighters. Pollution of water or land.	As above.	Medium	Medium	<b>Medium</b>	Risk of accidental combustion of waste is moderate.	As above.	Low
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	<b>Medium</b>	Permitted waste types are solids but may have residual liquid contamination, the Facility accepts low quantities of clinical waste. There is storage of process chemicals on site.  Small volumes of clinical waste are recieved for transfer, the hazardous component will be restricted to 10 t, but is routinely expected to be much lower.	All bulk storage of fuel oil are provided with secondary containment.  All clinical waste is in bags or containers so any spillage is likely to be small and detected quickly  All drains in the yard including raw material storage areas are directed to foul sewer. A penstock valve in place which can be closed in the event of loss of containment.	Very low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Low	<b>Low</b>	Permitted waste types are solids but may have residual liquid contamination. There is storage of process chemicals on site.	As above.	Low

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Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	Medium	<b>Medium</b>	Permitted waste types are solids but may have residual liquid contamination. There is storage of process chemicals on site.  Small volumes of clinical waste are recieved for transfer, the hazardous component will be restricted to 10 t, but is routinely expected to be much lower.	As above.	Low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Very low	Low	<b>Low</b>	There is a potential for contaminated rainwater run-off or leachate from permitted waste types.  Small volumes of clinical waste are recieved for transfer, the hazardous component will be restricted to 10 t, but is routinely expected to be much lower.	As above.	Low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Very low	Medium	<b>Low</b>	Waste operations may cause harm to and deterioration of nature conservation sites.	The Facility is operated in accordance with a DEMP, OMP and FPP which identify and manages off site emissions.	Low
All surface waters close to and downstream of site.	Uncontrolled release of process effluent	Harm to the functioning of downstream sewage treatment works.	Transport through the sewer system to a treatment works	Medium	Low	<b>Low</b>	Emissions from foul sewer could disrupt operation of the recieving sewage treatment works	All waste activities carried out on sealed drainage connected to foul sewer. There will be a trade effluent consent in place agreed with the sewerage undertaker. There is also penstock valve which can be closed to prevent discharge from the Facility into the sewer network.	Low