

Project details	Environmental Permit Application Cleantank Limited – Amsterdam Road Recycling Facility EPR/KB3607SG/A001
Applicant details	Cleantank Limited Amsterdam Road Hull Amsterdam Road Hull HU7 0XF
Report details	EP Application – Appendix H: Environmental Risk Assessment Document reference: DLR_2021.02/05 v2
Report date	24 August 2022
Submitted to	Permitting and Support Centre Environmental Permitting Team Environment Agency Quadrant 2 99 Parkway Avenue Parkway Business Park Sheffield S9 4WF Email: PSC@environment-agency.gov.uk
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1 Introduction

Cleantank Limited (the applicant) has requested that Reva Environmental Ltd (the agent) prepares an Environmental Permit (EP) application, for its recycling facility at Amsterdam Road, Sutton Fields Industrial Estate, Hull, Humberside, HU7 0XF.

The site is located in an commercial/industrial area, at National Grid Reference TA 10246 32508. The site setting is described on **Drawing CLNT-HULL-EP03** provided in **Appendix D** of this application. Access to the facility is off Amsterdam Road.

The objective of this application is to obtain a bespoke Environmental Permit (EP) which allows the applicant to:

- Accept hazardous and non-hazardous empty packaging (e.g. IBCs, small plastics, drums) that cannot be reconditioned, to enable plastic recycling by subjecting it to physical treatment comprising shredding, granulation and cleaning.

The materials are those that have been discarded or don't pass quality assurance (QA) tests for being reconditioned; instead they are shredded and granulated so that the processed materials can be recovered.

The physical treatment in Building 2 will take place in up to two lines that will run in parallel (and can run independently from each other). If only one line is operational, this can process batches of IBCs and drums/small containers; if both lines are operational it is likely that one will be dedicated for IBCs and one for drums/other containers. In that scenario, this will not be limited as maximum flexibility will be key to achieving full efficiency so both plants remain able to process either waste stream. If run to their maximum operating capacities, 20 hours a day, 7 days a week, the 2 lines could process 8 tonnes per day combined; the likely split would be 2.4 tonnes non-hazardous and 5.6 tonnes hazardous waste (a 30:70 split).

Question 6 of EA application form Part B2 requires the provision of an environmental risk assessment. A qualitative risk assessment has been generated for the facility and the risk assessment methodology follows a source-pathway-receptor model. The risk assessment is presented in **Table ERA3**.

1.1 Site Setting

The site is located in an industrial area (Sutton Fields Industrial Estate), to the northeast of Kingston Upon Hull. The site setting is described on **Drawing CLNT-HULL-EP03** provided in **Appendix D** of this application.

The wider site setting is summarised in Table ERA1 below. A screening request was made to the EA at the pre-application stage; this identified no habitat sites within the screening distance of the site (see **Appendix A** for a copy of EA pre-application advice letter).

Table ERA1: Site Setting

Direction	Local Setting
Northern Boundary	<ul style="list-style-type: none"> • Other commercial and industrial units lie to the north, immediately beyond Amsterdam Road, within the Sutton Fields Industrial Estate • The town of Bransholme lies on the other side of Sutton Road which runs west to east approximately 125 m from the site boundary (the properties are at 240 m at their closest) • The Winifred Holtby Academy and the Dorchester Primary School are located in Bransholme; the closest being the primary school which is approximately 525 m to the northeast • The town of Sutton On Hull lies to the west of Leads Road (the B1237),

	<p>approximately 650 m to the northeast</p> <ul style="list-style-type: none"> Allotment gardens border the corner of Sutton Road and Leads Road to the northeast, to the site side of Sutton on Hull, at approximately 650 m
Eastern Boundary	<ul style="list-style-type: none"> Other commercial and industrial units lie immediately to the east, within the Sutton Fields Industrial Estate. The industrial estate extends approximately 900 m to the east The town of Sutton on Hull lies beyond the industrial estate to the east but also wraps around and into the estate to the southeast with its closest point at approximately 250 m to the site, beyond Hamburg Road
Southern Boundary	<ul style="list-style-type: none"> Other commercial and industrial units lie immediately to the south, within the Sutton Fields Industrial Estate. The industrial estate extends approximately 900 m to the south where it is curtailed by the intersection of Leads Road with Ferry Lane (A1165) and the River Hull The River Hull runs in a northeasterly to southerly direction, passing at approximately 650 m to the south-southeast of the site Public rights of way run along the extent of the River Hull The westerly edge of Sutton on Hull lies beyond the industrial estate and the junction of the A1033 (Holwell Road) and Leads Road (B1237) with its closest point at approximately 500 m south of the site
Western Boundary	<ul style="list-style-type: none"> Other commercial and industrial units lie immediately to the west, within the Sutton Fields Industrial Estate. The industrial estate extends beyond Holwell Road (A1033) over 1 km to the west where it is curtailed by the River Hull The River Hull runs in a northeasterly to southerly direction, passing at approximately 900 m to the west of the site Public rights of way run along the extent of the River Hull An area of open water lies beyond the River Hull at approximately 1 km – possibly associated with the adjacent Oak Road Playing Fields A commercial property (public house- The Whistling Goose) lies at approximately 90 m to the north-northwest. This is understood to provide residential dwelling(s).

1.2 Sensitive Receptors

Key sensitive receptors are considered to be those within 1 km of the site; the potential impact to these from certain sources will depend on the weather conditions. The perceived impact at receptors located down-wind are likely to be more than at those located cross or up-wind for certain sources like dust, litter, odour, noise. Some receptors are more sensitive than others, for example a residential area is likely to be more sensitive than an industrial estate.

Table ERA2: Sensitive Receptors within 1 km

Receptor	Distance at closest point	Direction	Receptor Type	Relative Risk of Impact
River Hull	650 m	South-southeast	Area used by member of public - transient use of public rights of way	Low
Holderness Drain	921 m	Northeast	Nitrate Vulnerable Zone	Low
Schools	525 m	Northeast	Dorchester Primary School – all day presence	Moderate

			during term time and week days	
Residential Properties	240 m	Northeast	Residential properties in Bransholme – potential all day presence	Moderate
Residential property	80 m	North-northwest	Public house with residential status – potential all day presence	Moderate
Open public spaces	650 m	North	Allotment gardens - transient use	Low
Workers in other premises in the Industrial Estate	Immediately adjacent	All directions	Commercial/industrial workplace	Low

Figure ERA2 presents the wind rose for the area. This has been sourced from the met office (www.metoffice.gov.uk/climate/uk/regional-climates/mi) and is from a meteorological station located at Humberside airport located approximately 20 km south of the site.

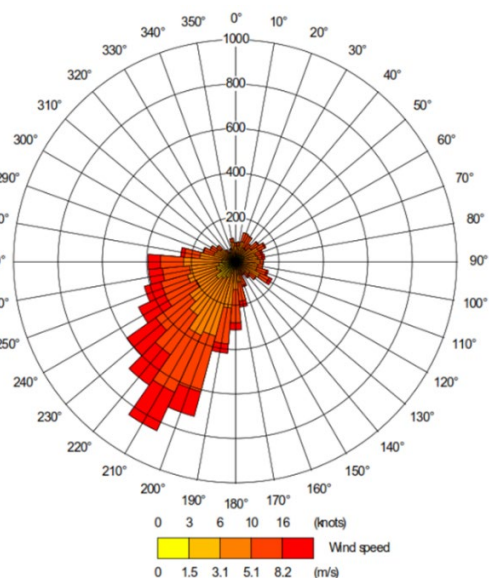


Figure ERA2: Wind-rose, Humberside Airport Meteorological Station, 2011

It can be seen that the prevailing wind originates strongly from the southwest, and therefore it is considered that receptors located to the northeast of the site would be the most likely to experience an impact from any issue on site and that receptors to the south and southwest of the site would be the least likely to experience an issue based on the wind rose data.

Table 3: Environmental Risk Assessment

Hazard	Receptor	Harm	Pathway	Likelihood of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Control Measures	Residual Risk
Releases of particulate matter (dusts)	Local human population/presence. The River Hull. The closest residential receptor is 90 m to the west-northwest of the site. The closest commercial receptors are the other units on the estate, some of which are immediately adjacent. Ecological sites – the closest is the River Hull at 650 m SSE of the site (however no habitat designations exist within the screening distance)	Nuisance - dust on cars, clothing etc.	Transportation through air then inhalation or deposition	Very Low	Medium	Low	Permitted wastes are not dusty. Air extraction via LEV is in place around the prep, shredders and granulators and is subject to filtering. No dry/dusty raw materials used are dusty.	Wastes comprise containers; these are subject to visual inspection at receipt and during storage pending processing. This is operational and effective during processing. LEV filters subject to regular maintenance and service and replaced regularly.	Very Low
		Harm to human health - respiratory irritation and illness; harm to ecological features through toxic contamination or smothering		Very Low	Low	Low			Very Low
Releases of VOCs from waste containers	Workers and visitors within the building, local human population/presence	Harm to human health - respiratory irritation and illness	Transportation through air then inhalation	Medium	Medium	Medium	The waste stream is plastic containers; these may contain residual contents containing VOCs	Wastes comprise containers; these are subject to visual inspection at receipt and during storage pending processing.	Low

Hazard	Receptor	Harm	Pathway	Likelihood of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Control Measures	Residual Risk
							although they are the original proprietary containers so are fit for the contents and are sealed	Treatment is within the building. Air extraction via LEV is in place around the prep, shredders and granulators and is subject to carbon filtering prior to release via exhaust. This is operational and effective during processing. Daily odour/emissions inspections carried out and recorded.	
Fire from storage and/or processing of waste	Local human population/presence. The River Hull. The closest residential receptor is 90 m to the west-northwest of the site. The closest commercial receptors are the other units on the estate, some of which are immediately adjacent. Ecological sites – the closest is the River Hull at 650	Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters or arsonists / vandals. Pollution of water or land from run-off of contaminated fire water.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches	Medium	High	Medium	The impact of a fire on the immediate local area can be significant, and the pollution requiring short to medium term remediation. The forklifts operate on gas oil and diesel so there is an ignition source.	Wastes comprise containers; these are subject to visual inspection at receipt and during storage pending processing. Waste turnaround is managed, with older waste being processed first. Regular inspection and maintenance carried out on key process plant and equipment (following planned preventative maintenance programme). Gas oil and diesel tanks are	Low

Hazard	Receptor	Harm	Pathway	Likelihood of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Control Measures	Residual Risk
	m SSE of the site (however no habitat designations exist within the screening distance)	Harm to ecological features through toxic contamination or smothering						located remotely from the storage of waste, outside the EP boundary, and are subject to scheduled maintenance and service managed by a separate operator. Thermal cut outs on applicable equipment (e.g. electrical drives and inverters). All reasonable precautions will be taken to prevent the outbreak of fire. In the first instance site staff will extinguish the fire where possible, if required the fire brigade will be contacted. Pollution control measures including impermeable hardstanding and surface water management infrastructure provides protection in terms of providing storage capacity for fire water. Water will be tested prior to discharge following fire to	

Hazard	Receptor	Harm	Pathway	Likelihood of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Control Measures	Residual Risk
								identify if it can be discharged.	
Litter	Local human population/presence. The River Hull. The closest residential receptor is 90 m to the west-northwest of the site. The closest commercial receptors are the other units on the estate, some of which are immediately adjacent. Ecological sites – the closest is the River Hull at 650 m SSE of the site (however no habitat designations exist within the screening distance)	Nuisance, loss of amenity and harm to wildlife (disturbance)	Air transport then deposition	Low	Medium	Medium	It is acknowledged that local residents and habitat receptors are often sensitive to litter emissions however permitted wastes are not litter-generating. Waste that could generate litter will be limited to office and welfare facilities so small scale and managed in standard bins.	Wastes comprise containers; these are subject to visual inspection at receipt and during storage pending processing.	Low
Waste and mud on local roads	Local human population/presence. The closest residential receptor is 90 m to the west-	Nuisance, loss of amenity, road traffic accidents	Vehicles entering and leaving the site	Medium	Medium	Medium	Road safety, local residents often sensitive to mud on roads.	During wet weather, daily inspection will identify if there are any areas of build-up of mud on internal and local roads and any issues	Low

Hazard	Receptor	Harm	Pathway	Likelihood of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Control Measures	Residual Risk
	northwest of the site. The closest commercial receptors are the other units on the estate, some of which are immediately adjacent. Site access is off Amsterdam Road which leads to the A1033 at approximately 1.2 km (distance by road) from the site entrance.							will be cleared as soon as practicable; the facility and site roads are constructed of concrete; any complaints will be recorded and an investigation will be undertaken and findings acted upon.	
Odour	Local human population/presence. The River Hull. The closest residential receptor is 90 m to the west-northwest of the site. The closest commercial receptors are the other units on the estate, some of which	Nuisance, loss of amenity	Air transport then inhalation	Medium	Medium	Medium	Local residents and public area users are often sensitive to odour. The waste stream is plastic containers; these may contain residual contents that are odorous however they are the original proprietary	Wastes comprise containers; these are subject to visual inspection at receipt and during storage pending processing. Air extraction is operational and effective during processing and the LEV exhaust is filtered for VOCs. This is operational and effective during processing. Daily odour/emissions	Low

Hazard	Receptor	Harm	Pathway	Likelihood of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Control Measures	Residual Risk
	are immediately adjacent.						containers so are fit for the contents and are sealed. The raw materials are not odorous.	inspections carried out and recorded.	
Noise and vibration	Local human population/presence. The River Hull. The closest residential receptor is 90 m to the west-northwest of the site. The closest commercial receptors are the other units on the estate, some of which are immediately adjacent. Ecological sites – the closest is the River Hull at 650 m SSE of the site (however no habitat designations exist within the screening distance)	Nuisance, loss of amenity; harm to ecological features through disturbance	Noise through the air and vibration through the ground	Medium	High	Medium	Local residents often sensitive to noise and vibration and closest resident is 90 m from the site. The site is within an existing 24/7 operational industrial area.	The noise design specification for the plant is such that employees are protected; plant does not exceed 85 dBA at 1 m from the noise source and hearing protection is used in these areas. Plant and equipment serviced and maintained on a scheduled basis. Vehicle movements in the yard are restricted to planning approved operating hours whilst treatment processes are all undertaken within a building. Any complaints will be recorded, and an investigation will be undertaken and finding acted upon. High boundary walls and building cladding	Low

Hazard	Receptor	Harm	Pathway	Likelihood of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Control Measures	Residual Risk
								contains operational noise. Operation located within current industrial area. Noise mitigation measures in place as per NIA (Appendix K of application)	
Scavenging animals (e.g. rats) and scavenging birds	Local human population/presence. The River Hull. The closest residential receptor is 90 m to the west-northwest of the site. The closest commercial receptors are the other units on the estate, some of which are immediately adjacent. Ecological sites – the closest is the River Hull at 650 m SSE of the site (however no habitat designations exist within the screening distance)	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity. Harm to ecological features through predation	Air and over land	Very Low	Low	Low	Permitted wastes and raw materials are very unlikely to attract scavenging animals and birds	Wastes comprise containers; these are subject to visual inspection at receipt and during storage pending processing. Pest control measures are in place.	Low

Hazard	Receptor	Harm	Pathway	Likelihood of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Control Measures	Residual Risk
Pests (e.g. flies)	Local human population/presence. The River Hull. The closest residential receptor is 90 m to the west-northwest of the site. The closest commercial receptors are the other units on the estate, some of which are immediately adjacent. Ecological sites – the closest is the River Hull at 650 m SSE of the site (however no habitat designations exist within the screening distance)	Harm to human health, nuisance and loss of amenity; Harm to ecological features through predation	Air and over land	Very Low	Low	Low	Permitted wastes and raw materials are very unlikely to attract pests	Wastes comprise containers; these are subject to visual inspection at receipt and during storage pending processing. Pest control measures are in place.	Low
Spillage of liquids	Local human population/presence. The closest residential receptor is 90 m to the west-northwest of the site. The closest	Harm to human health and animal health	Via drainage and soaking into the ground	Medium	High	Medium	The waste stream is plastic containers. Whilst nominally empty, these may contain residual contents however they are	Storage of liquid effluent is restricted to a small number of IBCs which are stored in the building with impermeable flooring and sealed drainage system pending transfer, moved	Low

Hazard	Receptor	Harm	Pathway	Likelihood of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Control Measures	Residual Risk
	commercial receptors are the other units on the estate, some of which are immediately adjacent. Ecological sites – the closest is the River Hull at 650 m SSE of the site (however no habitat designations exist within the screening distance)						the original proprietary waste containers so are fit for the contents and are sealed. Liquid effluent from the pre-wash system is collected and stored in IBCs prior to transfer off site for disposal or recovery.	only by trained forklift operators. Waste containers are subject to visual inspection at receipt and during storage pending processing. Spillage of residual contents from waste pending processes would be contained by the yard drainage system comprising drainage linked to storage sumps and bunding. Emergency action plan in place to combat operational spillage.	
Flooding of site	Local human population/presence, The closest residential receptor is 90 m to the west-northwest of the site. The closest commercial receptors are the other units on the estate, some of which are immediately	Waste and/or raw materials washed off site may contaminate downstream receptors	Flood waters flowing over land and soaking into the ground	Low	Medium	Medium	Permitted waste types include hazardous wastes but the River Hull which lies at 650 m to the south-southeast of the site is at a lower topographical elevation (approximately 2 m lower) than the	The site is not in a flood plain; waste containers are stored on pallets and can therefore be easily relocated in a flood event.	Low

Hazard	Receptor	Harm	Pathway	Likelihood of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Control Measures	Residual Risk
	adjacent. Ecological sites – the closest is the River Hull at 650 m SSE of the site (however no habitat designations exist within the screening distance)						site. The site is not within a flood plain.		
Arson and / or vandalism causing the release of polluting materials	Local human population/presence. The closest residential receptor is 90 m to the west-northwest of the site. The closest commercial receptors are the other units on the estate, some of which are immediately adjacent. Ecological sites – the closest is the River Hull at 650 m SSE of the site (however no habitat designations exist within the screening distance)	Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters or arsonists/vandals. Pollution of water or land. Harm to ecological features through toxic contamination or smothering	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches and soaking into land	Low	High	Medium	The impact of a fire on the immediate local area can be significant, and the pollution requiring short to medium term remediation	Site is secured by palisade fencing and lockable gates; there is a fire alarm and CCTV (which can be remotely accessed and monitored). Site access is only granted to authorised vehicles and visitors; pollution control measures including impermeable hardstanding and surface water management infrastructure provide protection in terms of providing storage capacity for fire water. Water will be tested prior to discharge following fire to identify if it can be discharged.	Low

2 Conclusion

Further details on the control measures are provided in the BAT Assessment completed for the application (Appendix I of the application, ref. DLR_2021.02/06). These include details on:

- Waste pre-acceptance
- Waste acceptance
- Waste storage, handling and dispatch
- Use of raw materials (chemicals, water)
- Management of emissions

On the basis of this and the assessment above, which follows the H1 approach for risk assessment, it is considered that the control measures that are either already in place at the site for the current activities, or are proposed to be implemented for the new activities, are appropriate.

At the request of the EA however, two additional documents have been produced to provide further consideration of both dust and noise. The consideration of dust is in relation to the operation of shredders; whilst a noise impact assessment has been triggered by the presence of a residential receptor at 90 m distance from the site. A dust management plan (DMP) is therefore provided as **Appendix J** of this application (ref. DLR_2021.02/07), and a noise impact assessment (NIA) and noise management plan (NMP) are provided in **Appendix K** of this application.

The ERA is a live document and will be subject to regular review throughout the life of the permitted operations. It will also be amended, if required, following any significant change to operations, an incident resulting in an environmental impact, and/or any substantiated complaints.