

Client: Clearfield Envirotech Limited

Address: Mc1, Road Five, Winsford Industrial Estate, Winsford, Cheshire, CW7 3RB

Clearfield Envirotech Limited
Mc1, Road Five, Winsford Industrial Estate, Winsford,
Cheshire, CW7 3RB



ENVIRONMENTAL RISK ASSESSMENT




06 September 2023

Our Reference: Clearfield-Winsford-RP04-Final (Env RA)



Waste And Industry Compliance Ltd

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Clearfield-Winsford-RP04-Final (Env RA)

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1 SITE DETAILS

- 1.1.1 This Environmental Risk Assessment (Env RA) has been prepared on behalf of Clearfield Envirotech Limited for their non-hazardous waste plastics and cardboard recycling facility at Mc1, Road Five, Winsford Industrial Estate, Winsford, Cheshire, CW7 3RB (***the Site***).
- 1.1.2 Clearfield Envirotech Limited (***the Operator***) proposes to operate a state-of-the-art non-hazardous wastes plastics and cardboard recycling facility.
- 1.1.3 The Site incorporates a dedicated and enclosed building, with impermeable concrete base. There are no drainage outlets inside the building and therefore no pathways to groundwater, surface water or uncontained land. All waste treatment activities will take place inside the building. Processing equipment will comprise shredding equipment, up to two wash plants, which each incorporate rear end drying, up to two plastic extrusion plants and a baler for baling recycled products prior to off-site supply to customers.
- 1.1.4 The building is fitted with 4 roller shutter vehicular access doors on the northern side and 5 roller shutter doors on the southern side. Pedestrian access fire doors are also fitted for emergency evacuation in the event of a fire incident.
- 1.1.5 There is an external yard, which incorporates engineered, paved surface, it will be used for storage of incoming baled wastes, prior to transfer into the building for processing and recovery. All incoming wastes will be in baled form.
- 1.1.6 A combination of open stockpiles with a minimum of 6m separation distances all around (i.e. to all four sides) and fireproof bays comprising 2 hour fire resistant concrete rear push walls and side walls will be used for the storage of baled waste. Where fire resistant bays are used, a 6m separation distance will be maintained in front of the bay and the maximum height of waste will be at least 1m lower than the top of the bay walls. Fireproof bay and stockpile storage locations and 6m separation distances are shown on Drawing 'Indicative Site Layout and Storage', DW01. Each bay and stockpile will measure 12m wide and 10.5m long. The height of bay walls will be 4.4m. Bales will be stacked to a maximum height of 3.4m in both bays and stockpiles.
- 1.1.7 A detailed Fire Prevention Plan (FPP), Dust and Emissions Management Plan (DEMP) and Odour Management Plan (OMP) have been prepared for the Site and are included as part of the permit application.
- 1.1.8 This Environmental Risk Assessment is submitted in support of a bespoke permit application for the Site and includes details of how the Site will be managed to minimise the risks of pollution from operations, maintenance, accidents, incidents and any non-conformances.

2 RISK ASSESSMENT

- 2.1.1 The Environmental Risk Assessment for the Site is shown in Table 1 below.

Table 1 Environmental Risk Assessment

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Odour						
<p>Odour from baled wastes stored external to the building.</p> <p>Odour from waste delivery, off-loading and storage and processing inside the building.</p>	<p>The nearest residential properties are circa 540m west of the Site at the closest point.</p> <p>The Site is part of the Winsford Industrial Estate complex and is surrounded on all four sides by large industrial buildings.</p> <p>The nearest industrial premises are Henkel Ltd, circa 10m north of the Site, Renray Healthcare Ltd, circa 10m south, GEMCO (Garage Equipment and Maintenance Company), circa 10m west and Valentte (Perfumes), circa 10m west.</p> <p>Wharton Primary Healthcare Centre is circa 855m west of the Site at the closest point.</p>	Air	<p>All wastes stored external to the building will be in baled form only. Baled plastics and cardboard are not inherently odorous. All wastes will be transferred into the building for processing typically no more than 4 days after receipt, but as a worst case scenario within a fortnight. Duration of waste storage times will be minimised and materials will be processed on a first in first out basis to ensure rapid turnaround times.</p> <p>As part of the first in first out policy, waste storage bays and stockpiles will be managed in series so that those containing the longest deposited materials will be emptied first. Care will be taken to ensure that the corners of the bays and stockpile areas are emptied and swept, so that materials are not allowed to accumulate and become potentially odorous.</p> <p>The building is enclosed and comprises brick and metal sheeting clad construction, with impermeable concrete base. It is fitted with roller shutter vehicle entrance and exit doors. These doors will be closed except for vehicle entrance and exit etc to prevent any emissions to the external environment. All waste treatment processes will be located within the building.</p> <p>The Site boundary will be inspected on a daily basis for odour.</p> <p>Any significant odour detected or complaints received at the Site about odour will be monitored and logged in accordance with the Environmental Management System procedures in place. Mitigation measures will be implemented, as appropriate, to ensure a high level of control.</p>	Unlikely as waste types and treatment activities are not inherently odorous	Odour annoyance to anyone living or working close to the Site or accessing designated habitats sites for leisure or to carryout conservation work etc.	Low

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
	<p>Sunrise Nursery, for children up to 5 years old, and Willow Wood Community Primary School are respectively circa 760m west and 830m west of the Site at the closet point.</p> <p>There are no European Sites, i.e. Special Protection Areas (SPA), Special Areas of Conservation (SAC), RAMSAR Sites, Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNR) or Local Nature Reserves (LNR) within 2km of the Site.</p>					
Odour from recovered products, prior to off-Site dispatch.	See above. Residential, industrial and commercial properties in the vicinity.	Air	See above.	Unlikely as recycled products are not inherently odorous	Odour annoyance to anyone living or working close to the Site.	Low
Odour from oil storage tank.	See above. Residential, industrial, commercial properties in the neighbouring areas.	Air	Any fuels or oils stored on Site, e.g. for use in mobile plant, will be stored in dedicated tanks or containers. These will be either double skinned tanks or located in an impermeable bunded area, with a capacity of at least 110% of the largest tank's contents. The use of enclosed containers or tanks will prevent the escape of leaks and odours.	Unlikely as emission from the tank or containers would be minimal.	Odour annoyance to anyone living or working close to the Site.	Very Low

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
			<p>Odorous emissions from the oil storage tank will be low. The nearest residential property is circa 540m to the west (i.e. upwind) of the Site.</p> <p>Notwithstanding the above, the Operator will undertake daily olfactory monitoring at the Site boundary and if odour is detected at levels that may cause a nuisance, the incident will be investigated and any actions necessary discussed with the Environment Agency and implemented as a priority.</p>			
Noise and Vibration						
<p>Engine noise from vehicles entering and exiting the Site, including reversing beepers and waste processing activities and equipment.</p>	<p>See above. Residential, industrial, commercial properties.</p>	<p>Noise via the atmosphere and vibration through the ground.</p>	<p>All waste processing equipment will be located inside an enclosed building, which comprises brick and metal sheeting clad construction. The building is fitted with roller shutter doors for vehicle entry and exit. Doors will be kept closed when vehicles are not accessing the building.</p> <p>There will be no waste deliveries or product collections between the hours of 7.00pm to 7.00am. During these times the roller shutter door will remain closed throughout (except in the case of an emergency such as a fire).</p> <p>To minimise noise emissions, all vehicles, plant and machinery operated at the Site will be maintained in accordance with the manufacturer's specification.</p> <p>Plant and vehicles will be switched off when not in use.</p> <p>Routine maintenance of treatment plant and equipment will be carried out to minimise noise emissions.</p> <p>In the event of any noise complaints from local residents and other businesses, details will be logged in accordance with the Environmental Management System. Mitigation measures</p>	<p>Unlikely due to the distance of the Site to the nearest residential properties and the mitigation measures in place.</p>	<p>Noise annoyance to anyone living or working close to the Site (excluding operators or employees).</p>	<p>Low</p>

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
			will be implemented, as appropriate, to ensure a high level of control.			
Fugitive Emissions – Air						
Dust from vehicle movements, waste storage on the external yard, waste processing inside the building and product storage and dispatch inside the building.	See above. Residential, industrial and commercial properties.	Air transport then inhalation and/or deposition.	<p>A Dust and Emissions Management Plan (DEMP) has been prepared for the site and is included as part of the permit application.</p> <p>Baled plastic and cardboard wastes are not inherently dusty and storage on the external yard will be in engineered concrete bays, each comprising rear push wall and 2 side walls, or in designated stockpile areas. Where bays are used, the height of the concrete walls will be a minimum of 1m higher than the top of the bales stacked within, which will afford protection from the wind. In addition, dust netting will be installed along the perimeter boundary fence in the waste storage area and portable netting will be used and placed in close proximity to the potential source of dust emission, taking care to maintain the 6m separation distance from the front of bays or to all 4 sides of an open stockpile.</p> <p>Baled wastes will be transferred into the building for processing typically within 4 days of receipt or, as a worst case scenario, within a fortnight.</p> <p>In the unlikely event of externally stored waste potentially giving rise to dust emissions, strict dust control measures would be used including the application of water using a hose to damp down materials and the concrete surface, which will fall to a sealed drainage system.</p> <p>Wastes stored and processed inside the building are unlikely to give rise to dust emissions. The building is fully enclosed (see above) and waste shredding and washing processes are carried</p>	Unlikely due to the distance of the Site to the nearest residential properties and the mitigation measures in place.	Dust annoyance to anyone living or working close to the Site (excluding operators or employees).	Low

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
			<p>out in the presence of water (i.e. materials are processed wet), which prevents any emissions of dust.</p> <p>Likewise separated and recovered products will be stored inside the building.</p> <p>Vehicle movements have the potential to emit particulates, especially during prolonged dry periods e.g. summer months. Procedures to prevent dust emissions include the following: the site access road, site entrance, external storage area and building floor comprise engineered hardstanding surfaces, which will be swept to prevent dust accumulation (the waste storage, processing and product storage areas comprise engineered concrete surfaces). Site vehicles will be limited to speeds of ≤ 10 mph.</p> <p>If on-site conditions become dusty, a water bowser or hose will be used on the access road and the working areas, where required (see above). Should the adjacent public highway become muddy a road sweeper will be hired as needed (this is considered unlikely as the Site comprises engineered surface).</p> <p>The Site boundary will be inspected on a daily basis for any dust or particulates escaping the Site. In the event of any dust emissions or complaints received about dust or particulate emissions, details will be logged in accordance with the Environmental Management System. Mitigation measures will be implemented, as appropriate, to ensure a high level of control.</p>			

Fugitive Emissions - Water

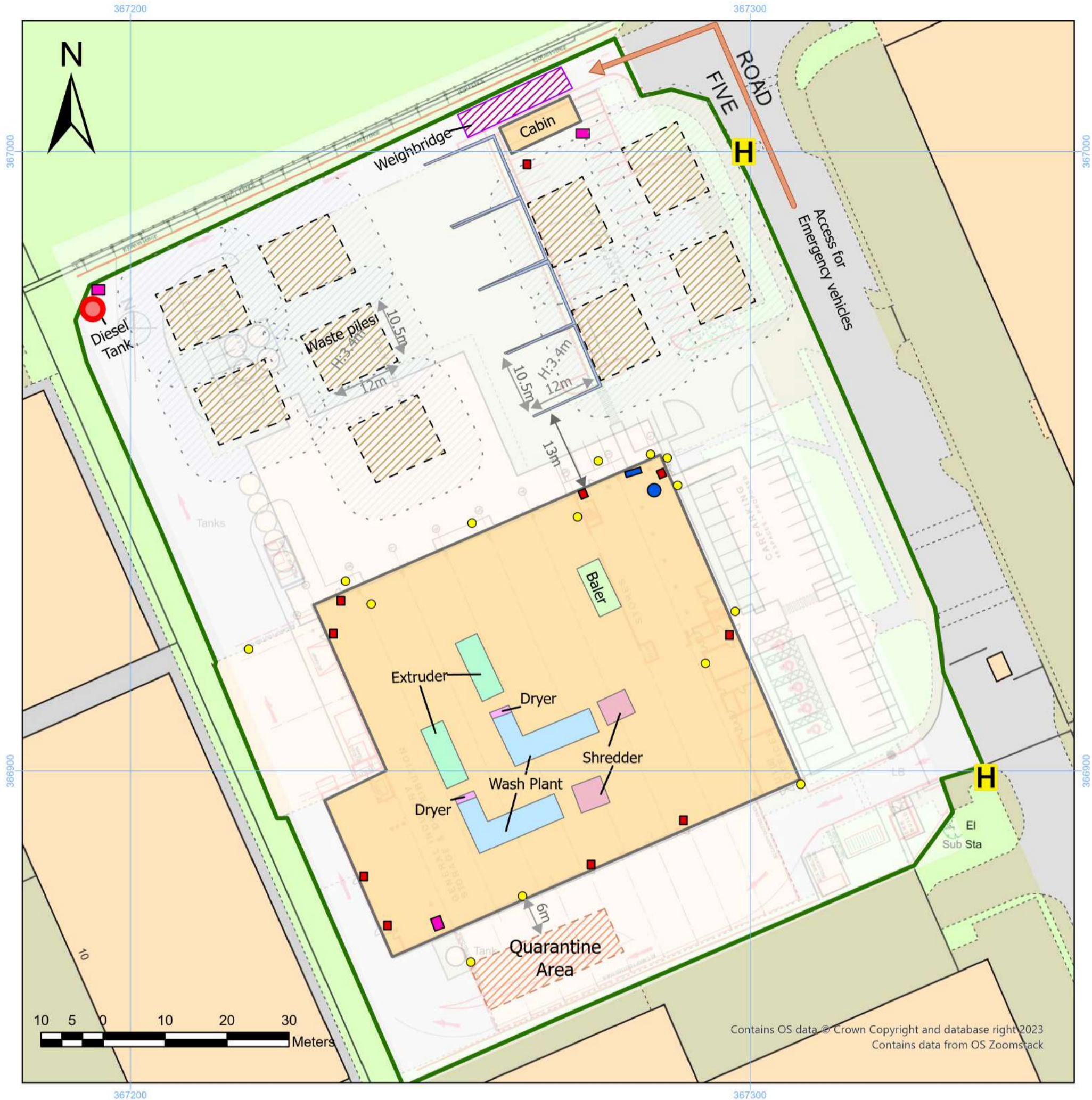
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Flood water and contaminated surface water runoff.	Local surface waters and groundwater.	Direct run-off from Site to adjacent, uncontained areas and percolation into soil and groundwater.	<p>The Site is located in a Flood Zone 1 and has a low probability of flooding. Land in a Flood Zone 1 has a less than 1 in 1,000 annual probability of river or sea flooding.</p> <p>The Site comprises engineered impermeable surfaces and sealed drainage. There are no discharges to surface water course.</p> <p>Any fuels or oils stored on site, e.g. for use in mobile plant, will be stored in dedicated tanks or containers. Tanks will be either double skinned or located in an impermeable bunded area, with a capacity of at least 110% of the largest tank's contents.</p> <p>Any complaints received at the Site about surface water run-off will be monitored and logged in accordance with the Environmental Management System in place. Mitigation measures will be implemented, as appropriate, to ensure a high level of control.</p>	Unlikely	Increased suspended solids, potential contaminants and organic component of waste stream.	Low
Fugitive Emissions - Mud and Debris						
Mud and debris being liberated beyond the Site boundary.	Neighbouring roads on Winsford Industrial Estate	Transportation of mud and debris from the Site on the under carriage and wheels of vehicles exiting the facility.	<p>The Site entrance and access road comprise engineered surfaces and the Site itself comprises engineered surfaces throughout. Vehicles are not required to drive over unpaved areas. A sealed drainage system is installed at the Site. This minimises any potential for mud and debris generation on site surfaces.</p> <p>As part of the daily inspection regime, the Site will be visually inspected for the presence of mud and debris. Should the adjacent industrial estate roads become muddy, a road sweeper will be deployed on an as and when required basis.</p> <p>Any complaints received at the Site about mud and debris will be monitored and logged in accordance with the</p>	Unlikely	Potential risk of vehicle accidents if mud accumulation occurs and is not treated.	Very Low

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
			Environmental Management System procedures in place. Mitigation measures will be implemented, as appropriate, to ensure a high level of control.			
Pests and vermin						
Pest and/or vermin infestation of waste loads.	See above. Residential, industrial and commercial properties in the neighbouring areas.	Airborne (flies and other insects, scavenging birds). Land (rodents and other vermin).	<p>The Site Manager or other Technically Competent Person will carry out weekly inspections of the Site, to assess whether any vermin or pest infestations are present. In the event of pest or vermin infestation or nuisance, a pest control contractor would be used to apply any rodenticides and insecticides as necessary.</p> <p>Wastes will be processed on a first in first out basis to ensure a rapid turnaround of materials and the minimisation of storage times. The maximum storage time of baled wastes in the external storage bays and stockpiles prior to transfer into the building for processing will be a fortnight.</p> <p>As part of the first in first out policy, waste storage bays and stockpiles will be managed in series so that those containing the longest deposited materials will be emptied first. Care will be taken to ensure that the corners of the bays and stockpiles areas are emptied and swept, so that materials are not allowed to accumulate and become potentially putrescible or attractive to vermin etc.</p> <p>In the unlikely event of infestations or any complaints received at the Site, details will be logged in accordance with the Environmental Management System procedures in place. Mitigation measures will be implemented, including contacting the pest control contractor, to ensure a high level of control.</p>	Unlikely	Potential nuisance to anyone living or working close to the Site. Gulls and other scavenging birds have the potential to cause disturbance and predation of wildlife in designated habitat sites.	Low

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Litter						
Litter deposits within waste loads or on Site.	See above. Residential, industrial and commercial properties in the neighbouring areas. Public highway.	Airborne	<p>There is the potential for loads to contain some elements of litter or other materials that may become airborne. However, all wastes will be wrapped and in baled form, which will contain materials, and storage on the external yard will be in engineered concrete bays, each comprising rear push wall and 2 side walls or in designated stockpiles. Where bays are used, the height of the concrete walls will be a minimum of 1m higher than the top of the bale stack stored within, which will afford protection from the wind. In addition, dust and litter netting will be installed along the perimeter boundary fence in the waste storage area and portable netting will be used and placed in close proximity to the potential source of dust emission, taking care to maintain the 6m separation distance from the front of bays or to all 4 sides of an open stockpile..</p> <p>Baled wastes will be transferred into the building for processing no more than a fortnight after receipt.</p> <p>All bales will be split and processed in the building, which is enclosed and fitted with roller shutter vehicle entrance and exit doors. These doors will be closed except for vehicle entrance and exit etc to prevent any emissions to the external environment. All waste treatment processes will be located within the building.</p> <p>In the event that litter escapes the Site it will be collected and appropriately disposed of as a matter of urgency.</p> <p>In the event of litter complaints received at the Site, details will be logged in accordance with the Environmental Management System procedures in place. Mitigation measures will be implemented, as appropriate, to ensure a high level of control.</p>	Unlikely	Potential nuisance to anyone living or working close to the Site. Unsightly impact on adjacent areas, including the public highway.	Low

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Fires						
Fires on Site from plant and equipment. Including arson and/or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Staff, visitors, other personnel on site, local human population, plant and equipment. Designated habitats. Surface water courses, soils and groundwater.	Air transport of smoke. Spillages and uncontained firewater, e.g. by direct run-off from Site.	<p>A detailed Fire Prevention Plan (FPP) has been prepared for the Site that meets the requirements of https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits/fire-prevention-plans-environmental-permits. Reference has also been made to the Waste Industry Safety and Health Forum document entitled Reducing Fire Risk at Waste Management Sites, issue 2, April 2017.</p> <p>The requirements of the FPP, including the use of 2 hours fire resistant concrete bay walls and open stockpiles surrounded to all 4 sides by 6m separation distances for waste storage etc will minimise the risk of any fire occurrence and spread at the Site (see FPP).</p> <p>On Site plant and equipment will be maintained on a regular basis to ensure it is working effectively to minimise the risk of fire.</p> <p>Fire extinguishers and water hoses will be located in the building and external yard area, and staff will be trained in the event of a fire using the fire-fighting equipment available. If deemed necessary, the fire brigade will be contacted and the Environment Agency informed.</p> <p>No materials will be burnt on Site.</p>	Unlikely	Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters or arsonists / vandals. Pollution of waters and soils.	Low
Oil/Diesel Leak						
Leak from the waste oil / diesel storage areas on Site (including	Surface water courses, soils and groundwater.	Percolation through the ground.	All on site vehicles will be inspected on a daily basis before operation to identify any leaks which will be dealt with accordingly.	Unlikely	Potential Contamination of local water courses and	Very Low

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
overfilling, vandalism etc.)			<p>Any fuels or oils stored on Site, e.g. for use in mobile plant, will be stored in dedicated tanks or containers. These will be either double skinned tanks or located in an impermeable bunded area, with a capacity of at least 110% of the largest tank's contents. The use of enclosed containers or tanks will prevent the escape of leaks or inadvertent spillage to uncontained areas.</p> <p>The Site incorporates concrete floors and sealed drainage system. All waste will be stored and processed on impermeable surfacing.</p> <p>Absorbent material, such as sand, will be kept on site and used to treat any spillages of potentially polluting liquids. All site staff will be trained in the relevant procedures on site.</p> <p>The operational procedures on site, including refuelling procedures, form part of the Environmental Management System.</p>		underlying groundwater.	



Title: indicative Site Layout & Storage			<h3>Legend</h3> <ul style="list-style-type: none"> Permit Boundary Bays 6m separation buffer ■ Fire Extinguisher ● Water Mains tap ■ Spill Kit — Water Hose ● Diesel Tank ● CCTV H Fire Hydrant
Site Location: Rd Five, Winsford Industrial Estates, Winsford, CW7 3QY			
Scale: 1:650	Page Size: A3	Author: S. Barnes	
Date: 04/09/2023		Version: FINAL	
Drawing Number: Clearfields-Winsford-DW01			
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