GLJ Recycling Ltd
Permit application supporting documents

6 – Environmental Risk Assesement

22 August 2019

Issue and Revision Record

Revision	Date	Originator	Approver	Description
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Contents

1 Environmental risk assessment

1.1 Applying H1

During the preparation of this application the environmental risks associated with the operation of GLJ Recycling Ltd.'s activities have been identified and assessed.
The appropriate measures proposed to mitigate these risks have been presented in Section 1.3.
According to Table 1 of the H1 Overview, the following H1 annexes are relevant to an application of this type:

- Amenity and accidents
- Surface water
- Air
- Site waste
- Global warming potential
- Groundwater
- Justification and cost benefit analysis of control measures

1.2 Risk identification and assessment

As part of GLJ Recycling Ltd.'s environmental management system a risk assessment has been carried out in order to identify the site's significant environmental aspects. The methodology employed is in line with the Environment Agency's H1 risk assessment methodology.
Table 4 includes an overview of each environmental aspect related to the waste management and wider operations of the company at the site. Each aspect is then evaluated in accordance with Likelihood versus Consequence model, with additional consideration given to risks that have an associated compliance obligation (i.e. legal or other requirement). The results of these evaluations form the environmental risk assessment, set out in Table 5.
Aspects that are determined to have an environmental risk of medium or high, or those that have an associated compliance obligation, are deemed significant aspects that require some form of control to manage them during the ongoing operation of the site. These control measures may be procedural or physical.
Table 1, below, explains how Likelihood is defined for the purposes of the GLJ Recycling Ltd risk assessment. Table 2 defines Consequences. As the company's management system considers health and social impacts as well as environmental impacts, these definitions are somewhat broader than would be found in a purely environmental risk assessment.

Table 1: Definition of Impact Likelihoods within the risk assessment methodology

Impact Likelihood	
Almost certain	Is expected to occur in most circumstances (i.e., will occur several times during the life of the project).
Likely	Will probably occur in most circumstances (i.e., more than once during the life of the project).
Possible	Might occur at some time (i.e., at least once during the life of the project).

Unlikely	May occur in exceptional circumstances (i.e., has occurred during comparable projects).
Rare	Not known within the industry (i.e., has Not occurred during comparable project in the industry).

Table 2: Definition of Impact Consequences within the risk assessment methodology

Impact Consequence	
Catastrophic adverse	Health – multiple deaths or widespread irreversible health effects in the community (more than 50 persons).
	Social – major community effect of national significance, resulting in stakeholder outrage on a national level. People exposed to the effect would have little to N capacity to adapt. Destruction of an item/place/value of international cultural significance.
	Environmental – extreme permanent changes to the natural environment (Not able to be practically or significantly rehabilitated or alleviated). Irreversible alteration to one or more ecosystems or several component levels; effects can be transmitted/accumulating; lost sustainability of most resources.
Major adverse	Health – single death or irreversible health effects in the community (injury/disability/infection leading to pandemic as cumulative impact to one or more persons).
	Social – significant community effect of provincial significance, resulting in stakeholder concern on a national level. People exposed to the effect would have limited capacity to adapt. Irreparable damage to item/place/values of cultural, historical and/or indigenous significance.
	Environmental – alteration to one or more ecosystems or component levels (including water and biodiversity), but which are recoverable; effects can be transmitted and/or accumulating.
Moderate adverse	Health – treatable (temporary) health effects in the community (injury/disability/treatable sexually transmitted diseases) to one or more persons. Hospitalisation and/or ongoing drug treatment required.
	Social – community effect of regional significance, resulting in stakeholder concern at a provincial level. People exposed to the effect would have some capacity to adapt. Permanent damage to item/place/values of cultural, historical and/or indigenous significance. Repeated incidence.
	Environmental – alteration/disturbance of a component of an ecosystem; effects Not transmitted or accumulating; potential resource loss, but sustainability unaffected.
Minor adverse	Health – treatable (temporary) health effects in the community (injury/disability) to one or more persons requiring medical or first aid treatment.
	Social – local community effect attracting stakeholder concern at a local level. Majority of people exposed to the effect are accustomed to the effect and/or could easily adapt. Reparable damage to item/place/values of cultural, historical and/or indigenous significance.
	Environmental – temporary alteration/disturbance beyond natural variability; effects confined to site and Not accumulating; resources temporarily affected.
Insignificant adverse	Health – No medical or first aid treatment required.
	Social – minor short-term reversible effect, localised event. The effect would Not require exposed people to adapt. N damage to item/place/values of cultural, historical and/or indigenous significance.
	Environmental – negligible environmental impact. Alteration/disturbance within the limits of natural variability; effects Not transmitted or accumulating; resources Not impaired.
Beneficial	Health – provides OHS training; education, staffing and supply of community medical provisions.
	Social – supports and/or improve education, occupational training and builds local/regional capacity. Improves local/regional government and overseas aid supported services. Improves access to services. Improves skills/capacity of local/regional women and youth to meet changing socio-economic conditions. Educates/trains/builds capacity of local people to engage in integrated and sustainable activities at the local level. Uses excellent safety record to support social investment.
	Environmental – uses excellent record in lack of damage to environment to build reputation. Beneficial alteration to one or more ecosystems or component levels or their inherent sustainability.

The Likelihood and Consequence assessments performed above are then compared using the matrix presented below in Table 3 to give an overall assessment of risk for each environmental aspect.

Table 3: Environmental risk assessment matrix

Likelihood	Consequence					
	Insignificant adverse	Minor adverse	Moderate adverse	Major adverse	Catastrophic adverse	Beneficial
Almost certain	Medium	Medium	High	High	High	Positive
Likely	Low	Medium	Medium	High	High	Positive
Possible	Low	Low	Medium	Medium	High	Positive
Unlikely	Low	Low	Low	Medium	Medium	Positive
Rare	Low	Low	Low	Low	Medium	Positive

Table 4: Environmental aspects register

Aspect Type	Activity Product / Service	Impact (s)	Operating Conditions					Comments	Pathway	Receptor
			Normal	Abnormal	Emergency	Past	Planned			
Water	Discharge of surface water to sewer	Increased volume of treated runoff water in mains sewer	N	N	N	N	N	No sewer connection on site. All water passes to Storage tanks via interceptor	None	
Water	Discharge of surface water to sewer	Excess contaminated water entering sewer system. Damage to Severn Trent waste water treatment plant	N	N	N	N	N	No sewer connection on site. All water passes to Storage tanks via interceptor	None	
Water	Discharge of cooling water to sewer from Metal Shredding	Increased volume of dirty water in mains sewer	N	N	N	N	N	No sewer connection on site. All water passes to Storage tanks via interceptor	None	
Water	Discharge of contaminated runoff to River Ebbw	Pollution of River Ebbw with metal dust, silt or oils	N	N	Y	N	N	Possible in the event of significant spillage leading to transfer of contaminants through the ground through impermeable layer. Possible in the event of vandalism or direct input of such material by poorly trained / vindictive employees or visitors Possible in the event of site flooding	Direct discharge	River Ebbw
Water	Discharge of contaminated runoff to local drainage ditches	Pollution of drainage ditches with metal dust, silt or oils	N	N	Y	N	N	Possible in the event of significant spillage leading to transfer of contaminants through the ground. Possible in the event of vandalism or direct input of such material by poorly trained / vindictive employees or visitors Possible in the event of site flooding	Direct discharge	Local drainage ditches
Water	Storage of oil and chemicals in small containers	Spillages of oil/chemicals into site drainage, rivers or sewer	N	Y	Y	N	N	Possible in the event of spillage leading to transfer of contaminants through the ground. Possible in the event of vandalism or direct input of such material by poorly trained / vindictive employees or visitors Possible in the event of site flooding	Direct discharge	Local drainage ditches

Aspect Type	Activity Product / Service	Impact (s)	Operating Conditions					Comments	Pathway	Receptor
			Normal	Abnormal	Emergency	Past	Planned			
Air	Use of diesel generator	Emission of NOx, SOx, Particulates	Y	Y	Y	Y	Y	Cable recycling activities use diesel generators for power supply	Exhaust stack	Air quality
Air	Use of diesel generator	Emission of greenhouse gases	Y	Y	Y	Y	Y	Cable recycling activities use diesel generators for power supply	Exhaust stack	Climate change
Air	Vehicle emissions	Emission of greenhouse gases, particulates etc.	Y	Y	Y	Y	Y	Use of site plant Deliveries of material to site by road transport	Vehicle exhausts	Air quality Climate change
Air	On-site mains power use	Emission of greenhouse gases	Y	Y	Y	Y	Y	Site offices, proposed shredder, Shear use mains power provided via the National Grid	Indirect - Power generation	Climate change
Air	Oil storage in bulk tanks	Emission of VOCs	N	Y	Y	Y	Y	During tank filling, VOCs are emitted via tank breather and refill points	Breather vents	Air quality
Air	Fire emergency	Emission of smoke to atmosphere	N	N	Y	N	N	In the event of a fire on site large amounts of smoke may be generated that could affect local receptors	Air	Air quality

Aspect Type	Activity Product / Service	Impact (s)	Operating Conditions					Comments	Pathway	Receptor
			Normal	Abnormal	Emergency	Past	Planned			
Air	Metal fragmentiser exhaust emissions	Emission of particulates to atmosphere	Y	Y	Y	Y	Y	During operations the metal fragmentiser exhaust vents through a stack via <10mghr Filter baghouse	Exhaust stack	Air quality
Air	Metal fragmentiser Non-point source emissions	Emissions of particulates / smoke to atmosphere	N	Y	Y	N	N	In scenarios where the metal fragmentiser is processing in a Non-standard manner, or in the event of explosions involving unsuitable feedstock, emission through the roof of the plant can occur	Air	Air quality Local amenity
Land / Groundwater	Release of runoff from waste to underlying soil	Soil and groundwater pollution	N	Y	Y	N	N	Oiled metal wastes can generate run-off that would contaminate underlying soil and groundwater. Therefore, waste must be stored on sealed surfaces. Stored chemicals can cause similar impacts	Land	Soil quality Groundwater quality
Waste generation	Metal recycling	Generation of residual Non-inert waste	Y	Y	Y	Y	Y	Contamination of incoming metal waste by asbestos, plastics, metals or other Non-hazardous waste results in residual waste being produced that the Company must dispose of	Waste disposal	Waste production Land Groundwater (via landfill)
Waste generation	Use of diesel generator	Generation of waste lubricating oil	Y	Y	Y	Y	Y	Use of on-site generators produces waste lubricating oil that must be disposed of	Waste disposal	Waste production Air & water quality (through waste oil recycling process)
Waste generation	Site offices and staff areas	Generation of municipal solid waste	Y	Y	Y	Y	Y	Staff produce waste in common and working (office) areas	Waste disposal	Waste production Land Groundwater (via landfill)

Aspect Type	Activity Product / Service	Impact (s)	Operating Conditions					Comments	Pathway	Receptor
			Normal	Abnormal	Emergency	Past	Planned			
Waste generation	Clean-up of oil or chemical spillage	Generation of hazardous waste	N	N	Y	N	Y	Spills must be cleaned up using sorbents and generate residual waste and contaminated PPE	Waste disposal	Waste production Air & water quality (through waste oil recycling process)
Natural resources	Use of water	Emissions from treatment of water used for on-site activities Reduction in available water resource for society	Y	Y	Y	Y	Y	Consuming potable water requires water companies to treat increased volumes with consequential emissions Use of water may be restricted in times of drought	Water supply	Air quality Water resources
Natural resources	On-site mains power use	Consumption of fossil fuels	Y	Y	Y	Y	Y	Site offices use mains power provided via the National Grid	Indirect - Power generation	Resource availability
Natural resources	Use of vehicles and site plant	Consumption of fossil fuels	Y	Y	Y	Y	Y	Vehicles run on diesel	Vehicle exhausts	Resource availability
Natural resources	Use of diesel generators	Consumption of diesel and lubricants	Y	Y	Y	Y	Y	Metal recycling activities use diesel generators for power supply	Indirect	Climate change
Humans	Use of diesel generators	Noise Vibration	Y	Y	Y	Y	Y	Metal recycling activities use diesel generators for power supply	Air	Local residents Neighbouring businesses Site staff Visitors to site

Aspect Type	Activity Product / Service	Impact (s)	Operating Conditions					Comments	Pathway	Receptor
			Normal	Abnormal	Emergency	Past	Planned			
Humans	Use of vehicles and site plant	Noise Vibration Dust	Y	Y	Y	Y	Y	Heavy vehicles and site plant can cause noise that may be considered a nuisance at sensitive locations	Air	Local residents Neighbouring businesses Site staff Visitors to site
Humans	Metal handling	Noise Vibration Dust	Y	Y	Y	Y	Y	Receipt, lifting, shredding etc. of metal generates nose and dust. Vibration can be generated by shredders, dropping metal or other general site operations In dry conditions vehicles can generate airborne dust by running over dirty site haul roads	Air (Land - Vibration)	Local residents Neighbouring businesses Site staff Visitors to site
Humans	Fire emergency	Emission of smoke to atmosphere	N	N	Y	N	N	In the event of a fire on site large amounts of smoke may be generated that could affect local receptors	Air	Local residents Neighbouring businesses Site staff Visitors to site
Humans	All waste handling activities	Odour	N	Y	Y	N	N	Were odorous waste to be accepted at the site among metal or aggregate waste the site could generate nuisance odour that could give rise to complaints	Air	Local residents Neighbouring businesses Site staff Visitors to site
Humans	All waste handling activities	Litter / escape of waste	N	Y	Y	N	N	Were light waste to be accepted at the site among metal or aggregate waste the site could generate nuisance litter that could give rise to complaints	Air	Local residents Neighbouring businesses Site staff Visitors to site
Humans	All waste handling activities	Mud on roads outside site boundary	N	Y	Y	N	N	When site roads become dirty vehicles can carry mud or dust onto surrounding highways via their wheels and bodies in wet conditions. This can pose a nuisance or a safety risk if vehicles lose adhesion on muddy roads	Land	Local residents Neighbouring businesses Site staff Visitors to site

Aspect Type	Activity Product / Service	Impact (s)	Operating Conditions					Comments	Pathway	Receptor
			Normal	Abnormal	Emergency	Past	Planned			
Flora & Fauna	All waste handling activities	Dust / Noise	Y	Y	Y	Y	Y	Excessive dust can lead to smothering of plant life Excessive nose can disturb local animal populations	Air	Local flora and fauna
Flora & Fauna	Site development	Removal of habitat	N	N	N	Y	N	Removing green areas to lay new hard surfacing removes habitat for local plants and animals	Land	Local flora and fauna
Water	Inundation of site activities by floodwater	Dispersal of stored waste and potentially polluting liquids into neighbouring areas / river	N	N	Y	N	N	Due to the scale of such an event and total amount of debris and foul water that would be involved, the overall environmental impact of inundation upon the site would be relatively low, though effect of business continuity would be severe.	Water	Neighbouring property Water quality (though mitigated by dilution factors that would be involved)

Table 5: Environmental risk assessment

Aspect Type	Activity Product / Service	Impact(s)	Operating Conditions					Likelihood	Consequence	Overall risk	Compliance obligation	Significant aspect?
			Normal	Abnormal	Emergency	Past	Planned					
Water	Discharge of surface water to sewer	No sewer connection on site	N	N	N	N	N			None	Yes	Yes
Water	Discharge of surface water to sewer	No sewer connection on site. All water passes to Storage tanks via interceptor	N	N	N	N	N			None	Yes	Yes
Water	Discharge of cooling water to sewer from Metal Shredding	Increased volume of dirty water in mains sewer	N	N	N	N	N			None	Yes	Yes
Water	Discharge of contaminated runoff to Ebbw	Pollution of River Trent with metal dust, silt or oils	N	N	Y	N	N	Unlikely	Moderate adverse	Low	Yes	Yes
Water	Discharge of contaminated runoff to local drainage ditches	Pollution of drainage ditches with metal dust, silt or oils	N	N	Y	N	N	Unlikely	Minor adverse	Low	Yes	Yes
Water	Storage of oil and chemicals in small containers	Spillages of oil/chemicals into site drainage, rivers or sewer	N	Y	Y	N	N	Possible	Minor adverse	Low	Yes	Yes

Aspect Type	Activity Product / Service	Impact(s)	Operating Conditions					Likelihood	Consequence	Overall risk	Compliance obligation	Significant aspect?
			Normal	Abnormal	Emergency	Past	Planned					
Air	Use of diesel generator	Emission of NOx, SOx, Particulates	Y	Y	Y	Y	Y	Almost certain	Insignificant adverse	Medium	No	Yes
Air	Use of diesel generator	Emission of greenhouse gases	Y	Y	Y	Y	Y	Almost certain	Insignificant adverse	Medium	No	Yes
Air	Vehicle emissions	Emission of greenhouse gases, particulates etc.	Y	Y	Y	Y	Y	Almost certain	Insignificant adverse	Medium	No	Yes
Air	On-site mains power use	Emission of greenhouse gases	Y	Y	Y	Y	Y	Almost certain	Insignificant adverse	Medium	No	Yes
Air	Oil storage in bulk tanks	Emission of VOCs	N	Y	Y	Y	Y	Likely	Insignificant adverse	Low	No	No
Air	Fire emergency	Emission of smoke to atmosphere	N	N	Y	N	N	Possible	Major adverse	Medium	Yes	Yes

Aspect Type	Activity Product / Service	Impact(s)	Operating Conditions					Likelihood	Consequence	Overall risk	Compliance obligation	Significant aspect?
			Normal	Abnormal	Emergency	Past	Planned					
Land / Groundwater	Release of runoff from waste to underlying soil	Soil and groundwater pollution	N	Y	Y	N	N	Likely	Moderate adverse	Medium	Yes	Yes
Waste generation	Metal recycling	Generation of residual non-inert waste	Y	Y	Y	Y	Y	Almost certain	Insignificant adverse	Medium	Yes	Yes
Waste generation	Use of diesel generator	Generation of waste lubricating oil	Y	Y	Y	Y	Y	Almost certain	Minor adverse	Medium	Yes	Yes
Waste generation	Site offices and staff areas	Generation of municipal solid waste	Y	Y	Y	Y	Y	Almost certain	Insignificant adverse	Medium	Yes	Yes
Waste generation	Clean-up of oil or chemical spillage	Generation of hazardous waste	N	N	Y	N	Y	Likely	Minor adverse	Medium	Yes	Yes
Natural resources	Use of water	Emissions from treatment of water used for on-site activities Reduction in available water resource for society	Y	Y	Y	Y	Y	Almost certain	Insignificant adverse	Medium	No	Yes

Aspect Type	Activity Product / Service	Impact(s)	Operating Conditions					Likelihood	Consequence	Overall risk	Compliance obligation	Significant aspect?
			Normal	Abnormal	Emergency	Past	Planned					
Natural resources	On-site mains power use	Consumption of fossil fuels	Y	Y	Y	Y	Y	Almost certain	Insignificant adverse	Medium	No	Yes
Natural resources	Use of vehicles and site plant	Consumption of fossil fuels	Y	Y	Y	Y	Y	Almost certain	Insignificant adverse	Medium	No	Yes
Natural resources	Use of diesel generators	Consumption of diesel and lubricants	Y	Y	Y	Y	Y	Almost certain	Insignificant adverse	Medium	No	Yes
Humans	Use of diesel generators	Noise Vibration	Y	Y	Y	Y	Y	Almost certain	Minor adverse	Medium	Yes	Yes
Humans	Use of vehicles and site plant	Noise Vibration Dust	Y	Y	Y	Y	Y	Almost certain	Minor adverse	Medium	Yes	Yes
Humans	Metal handling	Noise Vibration Dust	Y	Y	Y	Y	Y	Almost certain	Minor adverse	Medium	Yes	Yes

Aspect Type	Activity Product / Service	Impact(s)	Operating Conditions					Likelihood	Consequence	Overall risk	Compliance obligation	Significant aspect?
			Normal	Abnormal	Emergency	Past	Planned					
Humans	All waste handling activities	Odour	N	Y	Y	N	N	Possible	Minor adverse	Low	Yes	Yes
Humans	All waste handling activities	Litter / escape of waste	N	Y	Y	N	N	Unlikely	Minor adverse	Low	Yes	Yes
Humans	All waste handling activities	Mud on roads outside site boundary	N	Y	Y	N	N	Possible	Minor adverse	Low	Yes	Yes
Flora & Fauna	All waste handling activities	Dust / Noise	Y	Y	Y	Y	Y	Possible	Minor adverse	Low	Yes	Yes
Flora & Fauna	Site development	Removal of habitat	N	N	N	Y	N	Unlikely	Insignificant adverse	Low	No	No
Air	Metal fragmentiser exhaust emissions	Emission of particulates to atmosphere	Y	Y	Y	Y	Y	Likely	Minor adverse	Medium	Yes	Yes

Aspect Type	Activity Product / Service	Impact(s)	Operating Conditions					Likelihood	Consequence	Overall risk	Compliance obligation	Significant aspect?
			Normal	Abnormal	Emergency	Past	Planned					
Air	Metal fragmentiser non-point source emissions	Emissions of particulates / smoke to atmosphere	N	Y	Y	N	N	Possible	Minor adverse	Low	Yes	Yes
Water	Inundation of site activities by floodwater	Dispersal of stored waste and potentially polluting liquids into neighbouring areas / river	N	N	Y	N	N	Unlikely	Moderate	Low	No	No

1.3 Control measures

Having identified the significant environmental aspects associated with its operation of the installation, GLJ Recycling Ltd has put procedures and minimum technical standards in place to ensure that the risks are minimised and residual risks are acceptable. Table 6, below, summarises the key control measures in place to manage these

Table 6: Summary of control measures

Aspect / Hazard	Potential Impact	Control measures
Discharge of surface water to sewer	There is no connected sewer to site	
Discharge of surface water to sewer	There is no connected sewer to site	
Discharge of cooling water to sewer from Metal Shredding	There is no connected sewer to site	
Discharge of contaminated runoff to River Ebbw	Pollution of River Ebbw with metal dust, silt or oils	Daily checks to ensure no unexpected tampering has occurred along the Ebbw boundary
Discharge of contaminated runoff to local drainage ditches	Pollution of drainage ditches with metal dust, silt or oils	Daily checks to ensure no unexpected tampering or discharges have occurred into any ditches of the site
Storage of oil and chemicals in small containers	Spillages of oil/chemicals into site drainage, rivers or sewer	Containers to be stored indoors or on drip trays. Drips to be mopped up at time of occurrence. Use of liquids to be supervised by competent staff.
Use of diesel generator	Emission of NOx, SOx, Particulates	Generators to be serviced by supplier in accordance with manufacturer specification. Appropriate maintenance to be carried out as required. Generator reliance to be significantly reduced during 2019.
Use of diesel generator	Emission of greenhouse gases	Generators to be serviced by supplier in accordance with manufacturer specification. Appropriate maintenance to be carried out as required. Generator reliance to be significantly reduced during 2019.
Vehicle emissions	Emission of greenhouse gases, particulates etc.	Vehicles to be serviced by in accordance with manufacturer specification. Appropriate maintenance to be carried out as required. Staff training on effective use of vehicles, including reducing idling. Route planning to minimise mileage for road haulage.
On-site mains power use	Emission of greenhouse gases	Office energy efficiency programme
Fire emergency	Emission of smoke to atmosphere	See Fire Prevention Plan
Release of runoff from waste to underlying soil	Soil and groundwater pollution	Waste only stored on impermeable surfacing with sealed drainage or hardstanding (for waste unlikely to produce contaminated runoff)
Metal recycling	Generation of residual non-inert waste	Residual waste stored in containers or on impermeable surfaces. Regular disposal via registered waste carriers to suitably authorised sites
Use of diesel generator	Generation of waste lubricating oil	Generators to be serviced by supplier in accordance with manufacturer specification. Appropriate maintenance to be carried out as required. Generator reliance to be significantly reduced during 2019 Staff training to identify when generators not performing efficiently Disposal of waste oil to approved oil recovery firms
Site offices and staff areas	Generation of municipal solid waste	Office waste reduction and recycling programme
Clean-up of oil or chemical spillage	Generation of hazardous waste	Contaminated sorbent stored within appropriate bins, indoors, pending collection
Use of water	Emissions from treatment of water used for on-site activities	No onsite water treatment plant. Water usage monitoring in place. New plant design to incorporate water minimisation features.

Site offices and staff areas	Generation of municipal solid waste	Office waste reduction and recycling programme
	Reduction in available water resource for society	
On-site mains power use	Consumption of fossil fuels	Minimising start-up and shut-down procedures of energy intensive plant. Office energy minimisation programme.
Use of vehicles and site plant	Consumption of fossil fuels	Vehicles to be serviced by in accordance with manufacturer specification. Appropriate maintenance to be carried out as required. Staff training on effective use of vehicles, including reducing idling. Route planning to minimise mileage for road haulage
Use of diesel generators	Consumption of diesel and lubricants	Generators to be serviced by supplier in accordance with manufacturer specification. Appropriate maintenance to be carried out as required. Generator reliance to be significantly reduced during 2019 Staff training to identify when generators not performing efficiently
Use of diesel generators	Noise Vibration	See Amenity Management Plans
Use of vehicles and site plant	Noise Vibration Dust	See Amenity Management Plans
Metal handling	Noise Vibration Dust	See Amenity Management Plans Process water re-used for dust suppression in summer months. Staff training to minimise large drops when moving metal waste In dry conditions, minimise scraping of concrete surfaces with shovels
All waste handling activities	Odour	Rejection of odorous wastes Site waste types currently accepted are not odorous Were odorous wastes to be brought onto site, handling and treatment to be carried out in buildings and odour management plan to be put in place
All waste handling activities	Litter / escape of waste	Monitoring for litter at site boundaries Regular housekeeping checks by supervisory staff Security systems in place to prevent unauthorised interference with waste stocks Physical barriers around waste handling areas If necessary, cessation of activities involving light wastes in high winds where litter appears to be an issue
All waste handling activities	Mud on roads outside site boundary	Vehicles access routes kept in good surface condition and swept and washed as required for the weather conditions. Long, paved haul road in place. Drivers to check vehicles before leaving site with weighbridge staff ensuring muddy vehicles are appropriately cleaned. Engagement of third-party road sweeper immediately should mud on the road from the site be identified by site staff or a third party.
All waste handling activities	Dust / Noise	See Amenity Management Plans Dusty wastes suitably dampened to reduce chance of particles becoming airborne. Visual monitoring of dust at boundaries with sensitive receptors.
Metal fragmentiser exhaust emissions	Emission of particulates to atmosphere	Cyclones / bag filters in place on exhaust stacks Monitoring of stack emissions
Metal fragmentiser non-point source emissions	Emissions of particulates / smoke to atmosphere	Control of feedstock to minimise risk of explosions Damping of shredder bay using sprays

1.4 Final risk assessment

Having identified the significant environmental aspects associated with the activities being carried out at the GLJ Recycling facility, and identified the necessary control measures that the company will put in place through procedures and physical modification to the site, Table 7 details the residual risk posed by the various hazards at the facility.

Table 7: Final environmental risk assessment

Activity Product / Service	Impact(s)	Initial risk	Risk after control measures applied
Discharge of surface water to sewer	None		
Discharge of surface water to sewer	None		
Discharge of cooling water to sewer from Metal Shredding			
Discharge of contaminated runoff to River Ebbw	Pollution of River Ebbw with metal dust, silt or oils	Low	Low
Discharge of contaminated runoff to local drainage ditches	Pollution of drainage ditches with metal dust, silt or oils	Low	Low
Storage of oil and chemicals in small containers	Spillages of oil/chemicals into site drainage, rivers or sewer	Low	Low
Use of diesel generator	Emission of NOx, SOx, Particulates	Medium	Low
Use of diesel generator	Emission of greenhouse gases	Medium	Low
Vehicle emissions	Emission of greenhouse gases, particulates etc.	Medium	Low
On-site mains power use	Emission of greenhouse gases	Medium	Low
Oil storage in bulk tanks	Emission of VOCs	Low	Low
Fire emergency	Emission of smoke to atmosphere	Medium	Low
Release of runoff from waste to underlying soil	Soil and groundwater pollution	Medium	Low
Metal recycling	Generation of residual non-inert waste	Medium	Low
Use of diesel generator	Generation of waste lubricating oil	Medium	Low
Site offices and staff areas	Generation of municipal solid waste	Medium	Low
Clean-up of oil or chemical spillage	Generation of hazardous waste	Medium	Low
Use of water	Emissions from treatment of water used for on-site activities	Medium	Low
On-site mains power use	Consumption of fossil fuels	Medium	Low
Use of vehicles and site plant	Consumption of fossil fuels	Medium	Low
Use of diesel generators	Consumption of diesel and lubricants	Medium	Low
Use of diesel generators	Noise Vibration	Medium	Low
Use of vehicles and site plant	Noise Vibration Dust	Medium	Low
Metal handling	Noise Vibration Dust	Medium	Low
All waste handling activities	Odour	Low	Low
All waste handling activities	Litter / escape of waste	Low	Low
All waste handling activities	Mud on roads outside site boundary	Low	Low
All waste handling activities	Dust / Noise	Low	Low

Use of vehicles and site plant	Consumption of fossil fuels	Medium	Low
Site development	Removal of habitat	Low	Low
Metal fragmentiser exhaust emissions	Emission of particulates to atmosphere	Medium	Low
Metal fragmentiser non-point source emissions	Emissions of particulates / smoke to atmosphere	Low	Low
Inundation of site activities by floodwater	Dispersal of stored waste and potentially polluting liquids into neighbouring areas / river	Low	Low