

# Forest Products Risk Assessment Doc Ref RA/2197B/Dec2020

<b>Facility:</b>	Waste Operation: Treatment of waste wood
<b>Location:</b>	Forest Products Centre, Cwmavan, Port Talbot, West Glamorgan, SA13 2RX
<b>Risk assessment carried out by:</b>	LJ Binnie
<b>Date:</b>	04-Dec-20

## The scope of the permit and associated rules is defined by the following risk criteria:

- Parameter 1 Permitted activities - The storage of waste (R13) treatment of waste wood (R3).
- Parameter 2 Permitted waste types - Non Hazardous wood types other than waste consisting solely or mainly of dusts, powders or loose fibres or waste in liquid form
- Parameter 3 Quantity of waste accepted at the facility: <100,000 tonnes per annum.
- Parameter 4 The site is not located within groundwater source protection zones 1 or 2. The site has a hardstanding surface and no emission point discharge for site drainage waters.
- Parameter 5 There are no point source discharges to controlled waters or groundwater from the site.
- Parameter 6 The site is not within 500m of a European Site (candidate or Special Area of Conservation, proposed or Special Protection Area or Ramsar site) or a Site of Special Scientific Interest (SSSI).
- Parameter 7 The site is 10 metres from any surface waters and there are no wells, springs or boreholes used for the supply of water for human consumption, including private water supplies within 50 metres of the site.

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	Medium	Permitted waste types are non hazardous and do not include dusts, powders or loose fibres (with the exception of sawdust) and have a low potential to produce bioaerosols, but the treatment activities will produce particulate matter so a medium magnitude risk is estimated. The permitted level of throughput and potential size of the facility means there is potential for exposure if anyone is living or working close to the site (apart from the operator and employees).	The site shall operate to a dust management plan.	Low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	High	Low	Medium	As above. Local residents often sensitive to dust.	As above	Low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	Low	Local residents often sensitive to litter, however permitted waste types have low litter potential.	As above. Appropriate measures could include clearing litter arising from the activities from affected areas outside the site.	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	Medium	Road safety, local residents often sensitive to mud on roads.	As above. Appropriate measures could include clearing waste, litter and mud arising from the activities from affected areas outside the site.	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Low	Low	Local residents often sensitive to odour, however permitted waste types have low odour potential.	Emissions shall be free from odour and if required an emission plan to prevent and minimise odours will be prepared	Very 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	Medium	Local residents often sensitive to noise and vibration	The site shall operate to a noise management plan.	Low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
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	Medium	Low	Permitted wastes unlikely to attract scavenging animals and birds but may become nesting / breeding sites.	Emissions of substances not controlled by emission limits (excluding odour and noise) shall not cause pollution. If appropriate measures, including, but not limited to, the preparation of an emissions management plan, to prevent or where that is not practicable, to minimise, those emissions.	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	Low	Permitted waste types unlikely to attract pests.	As above	Very 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	Low	Permitted waste types are 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.	The site will operate to a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances (will include flood risk management).	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Low	Low	Permitted waste types are non-hazardous therefore only a low magnitude risk is estimated	Activities shall be managed and operated in accordance with a management system which will include site security measures to prevent unauthorised access.	Low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
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, fire fighters 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	Permitted waste types do include flammable materials so a medium magnitude risk is estimated. Wastes should be stored in accordance with Environment Agency Pollution Prevention Guidance (PPG29) on Safe Storage - Combustible materials, prevent and control fire.	The site will operate to a Fire Prevention and Mitigation Plan that outlines measures to prevent combustion events and, in the event of an incident, the measures to minimises risks of pollution.	Low
Local human population and local environment	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 fire fighters. Pollution of water or land.	As above.	Medium	Medium	Medium	As above.	As above (excluding comments on access to waste). Permitted activities do not include the burning of waste.	Low
Buried culverted watercourse crossing site	Waste materials entering watercourse.	Pollution of water and flooding.	Failure/collapse of culvert	Low	Medium	Low	Permitted waste types are non-hazardous therefore only a low magnitude risk is estimated	The Management System will have regular inspections to ensure site drainage remains intact.	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.	Low	Low	Low	Permitted waste types do not include sludges or liquids so only a medium magnitude risk is estimated. No point source emissions to water are permitted, but there is potential for contaminated rainwater run-off from wastes stored outside buildings especially during heavy rain.	All liquids shall be provided with secondary containment (applies to non- wastes such as fuels). The Management System will employ appropriate measures to address emissions not controlled by emission limits and ensure site drainage remains intact.	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	Low	Low	Low	Waste types are non-hazardous so harm is likely to be temporary and reversible.	As above	Very low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
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.	Low	Low	Low	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above.	Very low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Low	Low	Low	Permitted wastes unlikely to contaminate groundwater.	As above	Very low
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.	The site will operate to dust and noise management plans and the site will be managed to ensure other emissions of substances not controlled by emission limits shall not cause pollution. In the event they do appropriate measures, including the preparation of an emissions management plan, shall be taken to prevent or where that is not practicable, to minimise, those emissions.	Very low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Semi Ancient Woodland (located 50m to east of site) and Lowland mixed deciduous woodland	Any	Harm through toxic contamination, nutrient enrichment, smothering, disturbance etc.	Any	Medium	Medium	Low	Waste operations may cause harm to and deterioration of woodland areas however the operations are similar to previous, long established site operations which have not impacted woodlands.	The site will operate to dust and noise management plans and the site will be managed to ensure other emissions of substances not controlled by emission limits shall not cause pollution. The operator will take appropriate measures, including, but not limited to, the preparation and implementation of an emissions management plan, to prevent or where that is not practicable, to minimise, those emissions. The management system will include measures to ensure operations do not encroach on adjacent land.	Low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Priority and Protected sites - Eel, Otter and Badger	Any	Harm through toxic contamination, nutrient enrichment, smothering, disturbance etc.	Any	Medium	Medium	Low	Waste operations may cause harm to interest of protected and priority species however the operations are identical to previous, long established site operations and the site itself contains no habitat of value to species (breeding, foraging etc).	The site will operate to dust and noise management plans and the site will be managed to ensure other emissions of substances not controlled by emission limits shall not cause pollution. The operator will take appropriate measures, including, but not limited to, the preparation and implementation of an emissions management plan, to prevent or where that is not practicable, to minimise, those emissions. The management system will include measures to ensure operations do not encroach on adjacent land.	Low



Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local Wildlife site (SINC): Hawthorn Close	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance etc.	Any	Low	Medium	Low	Waste operations may cause harm to and deterioration of nature conservation sites. However the site has no direct connectivity to the SINC being over 25m from the SINC at its closest point with the processing location 175m away with the intervening ground comprising commercial operations and a main road.	The site will operate to dust and noise management plans and the site will be managed to ensure other emissions of substances not controlled by emission limits shall not cause pollution. The operator will take appropriate measures, including, but not limited to, the preparation and implementation of an emissions management plan, to prevent or where that is not practicable, to minimise, those emissions.	Low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).

**Notes:** Red triangle indicates comment containing supporting information  
Yellow columns contain drop down menus that allow automatic evaluation of risk in green column