

Risk assessment for LEWMS Bespoke Permit Application

Standard Facility:

Treatment of waste and permanent deposit of waste as recovery.

Location:

Llanwern East Waste Management Site

Location of environmentally sensitive sites (km / m):

Less than 500m to Gwent Levels SSSI

Risk assessment carried out by:

Cuddy Remediation

Date:

20-Jun-16

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

- Parameter 1

Permitted activities - The storage of waste (R13) and treatment to produce soil, soil substitutes roadstone and aggregate(R3,R5).
- Parameter 2

Permitted waste types - Non Hazardous as listed in rules 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:< 75,000 Tonnes.
- Parameter 4

Unless otherwise stated in the agreed deployment form, all waste shall be stored and treated on an impermeable surface with sealed drainage system, or on hard standing.
- Parameter 5

The activities must be 10 metres from any watercourse, be outside groundwater source protection zones 1 (inner) or 2 (outer) and be 50 metres from any spring or well, or of any borehole not used to supply water for domestic or food production purposes or 50m from any spring or well or any borehole used for the supply of water for human consumption. This must include private water supplies.
- Abbreviations:

SR - Standard Rule
- | 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). |
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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 - Site users and nearby office users	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Low	Medium	Low	Permitted waste types are inert and non hazardous and do not include dusts, powders or loose fibres and have a low potential to produce bioaerosols. The treatment activities will produce particulate matter but there is no residential area nearby to the site, so a low magnitude risk is estimated. The small facility means there is a low potential for exposure if anyone is walking or working close to the site (apart from the operator and site employees). There is potential for increased dust generation from permitted activities during prolonged dry periods e.g. summer months.	Emissions of substances not controlled by emission limits (excluding odour and noise) shall not cause pollution. The operator will provide sufficient dust suppression with the use of water bowser should dust become an issue on the site.	Low
Local human population - Site users and nearby office users	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	Low	As above. Local residents often sensitive to dust. But as there are no residents in close proximity to the site the magnitude of risk is considered low.	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.	Any waste loads that do not meet the required specification for the site will not be permitted to be brought in. The onsite manager has a right to refuse or turn away any wagons that turn up to site carrying non-permitted materials.	Very low

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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 and site workers 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. A wheel wash system or road sweepers will be employed if excessive amounts of mud are found to be messing up the roadways.	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.	SR - emissions shall be free from odour.	Very low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Low	Medium	Low	Local residents often sensitive to noise and vibration, but as there are no residents in the immediate vicinity and the site is part of the large steelworks plant there is a low potential for noise causing a problem around the site.	If noise becomes an issue at the site, a noise management plan will be put into place for the operations.	Low

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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.	The operator will not import any wastes that have a potential to attract scavenging animals or birds. If any unpermitted materials are brought to site they will be sent back by the site manager. This will minimise the risk of any animals coming into the site.	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 / roadways / natural habitats.	Flood waters	Low	Low	Low	Permitted waste types are inert and 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.	SR -requires 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

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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	Low	Low	Low	Permitted waste types are inert and non hazardous therefore only a low magnitude risk is estimated	SR - activities shall be managed and operated in accordance with a management system. The site is within Tata Steelworks Llanwern and any persons entering / exiting the site are required to pass through the Tata main security gate entrance.	Low
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	Low	Low	Permitted waste types do not include any flammable materials so a low magnitude risk is estimated.	As above. There will be fire extinguishers situated near to the operations during working hours. Out of working hours the plant will be locked up where possible and as the site is within the Tata Steelworks security boundary the likelihood of trespassers causing damage is minimal.	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.	Low	Low	Low	As above.	Permitted activities do not include the burning of waste. As above, the site is protected by Tata security to prevent unauthorised access and there will be a fire extinguisher situated near to the operations during operating hours.	Low

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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 and inert so harm is likely to be temporary and reversible. Waste will be stored on impermeable hard standing surfaces and operations will be away from any watercourses.	As above	Very low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Low	Low	Low	Permitted wastes are only inert so will not cause adverse effects on the local groundwater.	Controls on emissions to groundwater contained within the SR. Site management practices will prevent the wastes entering the groundwater system.	Very low
Water Reens around the site.	Soil entering water course	Harm to the water quality and any aquatic animals	Silting up the water course.	Low	Medium	Low	Waste treatment operations will take place on an impermeable surface. The operations will be located away from the reen and will only involve the treatment of the inert soils brought to site.	Operations will take place away from the reen at the east of the site and site operatives will be observant to the position of the reen and ensure the processed soils will be kept away from the water course.	Low

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Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Medium	Medium	Medium	Waste operations may cause harm to and deterioration of nature conservation sites.	Emissions of substances not controlled by emission limits (excluding odour and noise) shall not cause pollution. The operator shall not be taken to have breached this rule if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions. SR - (deployment form)	Low