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| **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) | Harm to human health - respiratory irritation and illness. | Air transport then inhalation. | Low | Medium | **Medium** | Permitted waste types do not include dusts, powders or loose fibres so only a medium magnitude risk is estimated. There is potential for exposure if anyone is living or working close to the site (apart from the operator and employees) | emissions of substances not controlled by emission limits SR (if required) - emissions management plan. | Low |
| Local human population | As above | Nuisance - dust on cars, clothing etc. | Air transport then deposition | Low | Low | **Low** | Local residents often sensitive to dust. | emissions of substances not controlled by emission limits SR (if required) - emissions management plan. | Very 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. Site is situated within an industrial area. | emissions of substances not controlled by emission limits SR (if required) - emissions management plan.. 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. | Low | Low | **Low** | Road safety, local residents often sensitive to mud on roads. | Impermeable paving throughout, activities do not give rise to mud. Waste are also unlikely to cause littering off site. | Very 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. | Metal recycling process unlikely to give rise to odour due to waste types accepted being non- odorous waste metals. | 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 | **Medium** | Local residents often sensitive to noise and vibration | Situated within a heavily industrial area. Noise management plan could be written if required, | Medium |
| 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. | Permitted wastes unlikely to attract vermin. Pest control in place. | 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 wastes unlikely to attract pests. | As above | low |
| Local human population and local environment | Flooding of site | If waste is washed off site it may contaminate buildings / natural habitats downstream. | Flood waters | Low | Medium | **Low** | Site is fully enclosed. | EMS manages flood risk. Site is in a medium flood risk from river flooding but site is completely enclosed on 3 sides. | Medium |
| 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 | Medium | **Medium** | Site security measures at these facilities are normally good to prevent theft. Apart from lead acid batteries, all permitted waste types are non hazardous, so only a medium magnitude risk is estimated. | activities shall be managed and operated in accordance with a management system (will include site security measures to prevent unauthorised access). | Medium |
| 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, firefighters 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** | Site security measures at these facilities are good to prevent theft. Apart from lead acid batteries, all permitted waste types are non hazardous, so only a medium magnitude risk is estimated. | Activities shall be managed and operated in accordance with a management system (will include site security measures to prevent unauthorised access). FPP also in place. | Medium |
| 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 firefighters. Pollution of water or land. | As above. | Low | Medium | **low** | Risk of accidental combustion of waste is low. | Activities shall be managed and operated in accordance with a management system. Permitted activities do not include the burning of waste. FPP in place. | 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** | Apart from lead acid batteries and liquid residues, all permitted waste types are non hazardous solids so only a low magnitude risk is estimated. | All liquids are provided with secondary containment (applies to wastes and non- wastes such as fuels). Class 1 full retention interceptor in place along with spill kits and training. | 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. | Chronic effects: deterioration of water quality | As above. | Medium | Low | **Low** | As above. Harm is likely to be temporary and reversible. | All liquids are provided with secondary containment (applies to wastes and non- wastes such as fuels). Impermeable pavement to sealed drainage system. | 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. | Impermeable pavement to sealed drainage, site is enclosed on 3 sides. Site is close to watercourse | low |
| Protected sites - European sites and SSSIs | Any | Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc. | Any | Low | Medium | **Low** | Waste operations may cause harm to and deterioration of nature conservation sites. | SSSI, RAMSAR and SPA approximately 900m away. Affected only if escape of polluted run-off or smoke from fire. | Low |
| Local human population and all surface waters close to and downstream of site. | Serious Fire | Nuisance, harm to human health, loss of amenity, deterioration of water quality | Air transport then inhalation or deposition.  Direct run off of fire water across site to surface waters. | Low | High | **Medium** | Waste fires are not common but approximately 300 fires pa linked to waste activities.  Impact on health and amenity can be significant for many days or weeks. | Approved FPP in place to reduce fire risk. | Medium |
| All surface waters close to and downstream of site. | Serious Fire | Loss of amenity, deterioration of water quality | Direct run off of fire water across site to surface waters. | Low | High | **Medium** | Waste fires are not common but approximately 300 fires pa linked to waste activities.  In event of fire, fire water can be produced for days/ weeks.  Contaminated firewater run-off can kill fish and aquatic life. | Approved FPP in place. | Medium |