

| 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 do not include dusts, powders or loose fibres but the treatment activities will produce particulate matter, but activities will largely be in a building and facing away from the nearest households, so 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) | Ensure waste acceptance procedures are followed. Manage the length of time that the waste is stored for. Locate plant in areas where particulate matters are less likely to leave the permit boundary. | 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. | Ensure waste acceptance procedures are followed. Manage the length of time that the waste is stored for. Locate plant in areas where any dust occurring is less likely to leave the permit boundary. Consider using dust suppression if required | Low |
| Local human population, livestock and wildlife. | Litter | Nuisance, loss of amenity and harm to animal health | Air transport then deposition | Medium | Medium | Medium | Local residents often sensitive to litter. | Depositing and treating mixed waste with more potential to become airborne within the building. Appropriate measures could include clearing litter arising from the activities from affected areas outside the site. | Low |
| Local human population | Waste, litter and mud on local roads | Nuisance, loss of amenity, road traffic accidents. | Vehicles entering and leaving site. | Low | Medium | Medium | Road safety, local residents often sensitive to mud on roads.Site surface fully concreted; predominant waste types highly unlikely to result in mud | 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 | Medium | Low | Local residents often sensitive to odour. However, potential odourous waste will be stored within a building or suitable container | Keep odourous wastes within a building. Keep roller shutter doors closed when required. Manage the length of time that waste is stored for. Avoidance of particularly odourous wastes | Low |
| Local human population | Noise and vibration | Nuisance, loss of amenity, loss of sleep. | Noise through the air and vibration through the ground. | Low | Low | Low | Local residents often sensitive to noise and vibration | Keep drop heights to a minimum. Switch off machinery and vehicles when not in use. Restrict operating hours. Maintain machinery. Maintain walls around site to contain noise. | 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 | Medium | Medium | Medium | Permitted wastes may attract scavenging birds and animals. | Activities to take place within a building / enclosed skips. Manage the length of time that the waste is stored for. | Low |
| Local human population | Pests (e.g. flies) | Harm to human health, nuisance, loss of amenity | Air transport and over land | Medium | Medium | Medium | Insect pests can multiply on permitted wastes, particularly in summer months | Manage the length of time that the waste is stored for. Use of approved pest controllers if required. | 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 | Medium | 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. Site is a zone 3 flood risk and so low risk | Minimal water use on site; avoid doing so unless required | 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 | Very low | High | Medium | Potentially heavy machinery on site with potential to cause serious harm, but mitigated for by security measures | Activities shall be managed and operated in accordance with a management system (will include site security measures to prevent unauthorised access). Machine operators to be competent | 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, firefighters or arsonists/vandals. Pollution of water or land. | Air transport of smoke. Spillages and contaminated firewater by direct runoff from site and via surface water drains and ditches. | Medium | Medium | Medium | Permitted waste types do not include sludges or liquids and are non-hazardous so only a medium magnitude risk is estimated. | Fire Prevention and Mitigation Plan in operation, which includes arson and/or vandalism. Site will be monitored by CCTV when the site is not manned. Site to install a fire detection and suppression system within the waste transfer building. | Low |

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| 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. | Medium | Medium | Medium | Risk of accidental combustion of waste is moderate. Site to operate to the Fire Prevention and Mitigation Plan. No burning of waste permitted. No smoking near waste sources (in designated area only) | As above. Permitted activities will not include the burning of waste. | 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. | Medium | Medium | Medium | Permitted waste types do not include sludges or liquids so only a medium magnitude risk is estimated. There is potential for contaminated rainwater run-off from wastes stored outside buildings especially during heavy rain. | Site fully concreted. Oils liquids (non-waste) shall be provided with secondary containment. Site penstock to be used in the event of a major spillage which could result in water entering drainage network. No water discharged to surface water. | 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 | Medium | Low | Low | Waste types are non-hazardous so harm is likely to be temporary and reversible. | Site fully concreted. Oils liquids (non-waste) shall be provided with secondary containment. Site penstock to be used in the event of a major spillage which could result in water entering drainage network. No water discharged to surface water. | Low |
| Groundwater | As above | Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole. | Transport through soil/ground water then extraction at borehole. | Medium | Medium | Medium | There is a potential for contaminated rainwater run-off or leachate from permitted waste types. | Site fully concreted. Site penstock to be used in the event of a major spillage which could result in water entering drainage network. No water discharged to surface water. | 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. | Site fully concreted. Site penstock to be used in the event of a major spillage which could result in water entering drainage network. No water discharged to surface water. | Very low |
| 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. | Boundary adjacent to SSSI has solid walls. All site surfaces impermeable. No water to surface water network. Mixed / putrescible waste to be bulked and treated in a building | Low |

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| 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. | Limit in SR of annual tonnage to 75,000 tonnes. Fire Prevention and Mitigation Plan which will limit storage times of waste. Wastes not flammable or hazardous. Site will be monitored by CCTV when the site is not manned. | Low |
| 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. | Fire Prevention and Mitigation Plan in operation. Wastes not flammable or hazardous. Site will be monitored by CCTV when the site is not manned. | Low |