

Risk assessment National Tyre Recovery Limited

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| Bespoke Waste Facility: | Waste Operation: Storage & Physical Treatment of Tyres (Non-Haz) |
| Location: | Applies to all potential locations. |
| Location of environmentally sensitive sites (km / m): | Greater than 500m (see below) |
| Risk assessment carried out by: | Paul Downing |
| Date: | 16-Oct-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) and physical treatment R3,).
- Parameter 2 Permitted waste types - Non Hazardous 16-01-03
- Parameter 3 Quantity of waste accepted at the facility: 200,000 tonnes per annum.
- Parameter 4 Specified waste shall be stored and treated on an impermeable surface
- Parameter 6 The only point source discharges to controlled waters or groundwater, are surface water from the roofs of buildings and from areas of the facility not used for the storage or treatment of wastes.

| Data and information | | | | Judgement | | | | Action (by permitting) | |
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| Local human population | 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 non-hazardous and do not include dusts, powders or loose fibres and have a low potential to produce bioaerosols, but the treatment activities will produce particulate matter so a medium magnitude risk is estimated. | Ensure site is cleaned regularly and checked for build up of dusts etc | Low |

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| Local human population | As above | Nuisance - dust on cars, clothing etc. | Air transport then deposition | Low | Low | Low | 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 litter not in collected waste. 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. Vehicles clean on entry not from agricultural or muddy environment | 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. | Checks for odour during working day | 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. Rubber tyres give low noise output site in very rural location away from residential. | Deliveries during working hours. Minimum handling of tyres. | 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 | Low | Low | Permitted wastes unlikely to attract scavenging animals and birds but may become nesting / breeding sites. | Minimise dark damp areas that may attract voles/rodents etc | Very low |
| Local human population | Pests (e.g. flies) | Harm to human health, nuisance, loss of amenity | Air transport and over land | Low | Low | 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 | Medium | Medium | Medium | 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 not in floodzone but waste stored not mobile and unlikely to contaminate in any case. | Wastes stored in bunded/kerbed area | 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 | Low | Low | Permitted waste types are inert therefore only a low magnitude risk is estimated | Site security should prevent unauthorised access. Waste types unlikely to lead to injury | Low |

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| 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. | Tyres are combustible but not particularly flammable. Fire would cause dark smoke but tyres isolated in bunded area. | 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 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. | Medium |
| 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 a low 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. | Bunded area for waste stores - sealed drainage system | 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 and rubber/solid so harm is unlikely | As above | Very low |

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| 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. Also activities must be 50 metres from any spring or well, or from 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 | Very low |

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| 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 gastrointestinal illness. | Direct contact or ingestion | Low | Medium | Low | Unlikely to occur, but might restrict recreational use. | unlikely | Very 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. | No SSSI's or protected sites within 500m | Low |

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