

Aberystwyth Civic Amenity Site – Risk Assessment

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| Facility type: | Waste Operation: Non-hazardous and Hazardous Household Waste Amenity Site |
| Location: | Glanyrafon Industrial Estate, Aberystwyth, Ceredigion. SY23 3JQ |
| Location of Environmentally Sensitive Sites: | Less than 200m (Rheidol Shingles and Backwaters) |
| Risk Assessment Carried Out By: | Pete Malvern |
| Date: | 29/06/2016 |
| Ref: | CAA/RA/003 |

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

1. Permitted activities - The storage and repackaging of waste (D15, R13, D14) and treatment consisting only of manual sorting, separation, shredding and compaction of non-hazardous wastes (D9, R3, R4, R5).
2. Permitted waste types - Municipal waste, gases in pressurised containers and hazardous wastes, including cement bonded asbestos and oils.
3. Quantity of waste accepted at the facility: <4,999 tonnes per annum.
4. The quantity of hazardous waste stored at the facility shall be less than 50 tonnes.
5. All waste shall be stored and treated on an impermeable surface with sealed drainage systems.
6. Asbestos waste shall be stored within a segregated, secure lockable container and all other hazardous wastes shall be stored within suitable containers or in designated areas identified on the site plan.
7. The only point source discharges to controlled waters or groundwater are from surface water drainage systems for the roofs of buildings and areas of the facility used for the storage or treatment of wastes whose properties do not require drainage to foul sewer e.g. green waste.
8. The permitted activities shall not be carried out predominantly using a limited number of the permitted waste types in a manner which significantly increases any of the generic operation of this type of facility, for example storing predominantly wastes which present a significant increase in fire risk.

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| Data and Information | | | | Judgement | | | | Action (by permitting) | |
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| 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? |
| Local human population | Airborne asbestos fibres | Respiratory illness i.e. lung cancer and mesothelioma | Air transport then inhalation | Medium | High | Medium | Potential for exposure is low because of separate health and safety controls to protect employees | Permitted asbestos wastes are restricted to cement bonded asbestos. Operational control – method statement for asbestos transfer. | Low |
| Local human population | Releases of particulate matter (dusts) and micro-organisms i.e. bioaerosols | Harm to human health – respiratory irritation and illness | Air transport then inhalation | High | High | High | 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) | Permitted waste types do not include dusts, powders or loose fibres. Operational controls – site sweeping and a limit on the quantity of green waste stored on site at any one time which reduces the risk of aerobic and anaerobic decomposition. | Low |
| Local human population | As above | Nuisance – dust on cars, clothing, etc. | Air transport then deposition | High | Low | Medium | As above | Permitted waste types do not include dusts, powders or loose fibres. Operational control – site sweeping. | 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. | Operational control – litter picking as part of routine site maintenance to include areas adjacent to site boundary. | 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 often sensitive to litter and mud on roads. | Operational control – site sweeping and litter picking as part of routine site maintenance to include areas adjacent to site boundary. | Low |
| Local human population | Odour | Nuisance, loss of amenity | Air transport then inhalation | Medium | Medium | Medium | Local residents often sensitive to odour | Operational control – restricted storage time for malodorous wastes | 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 | Operational control - restricted use of waste handling vehicles/plant i.e. only in use for 1 hour before and after site opens and closes. Routine vehicle/plant maintenance. | Very Low |
| Local human population | Scavenging animals and 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 animals and birds. | Operational control - restricted storage time for wastes which attract vermin, onsite vermin control. | Very 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 | Operational control – restricted storage time for wastes which attract insects | Low |
| Local human population and environment | Flooding of site | Wastes washed onto adjacent properties, natural habitats and GPZ | Flood waters | Low | Medium | Low | Geographical position of the site makes flooding unlikely. Virtually all waste stored in containers. | Operational control – routine maintenance of drainage systems | Very low |
| Local human population and / or livestock after gaining | All on-site hazards: wastes; machinery and vehicles. | Bodily injury | Direct physical contact | Medium | Medium | Medium | The site is enclosed by security fencing with access through a supervised gateway which is locked at night. | Operational control – routine site security and infrastructure maintenance (fencing) and traffic control. No | Low |

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| unauthorized access to the waste operation | | | | | | | | machinery is used on site and operational vehicles are only used when the site is closed to the public. | |
| 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/vandalists. 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 | The site is enclosed by security fencing with access through a supervised gateway which is locked at night. All flammable liquids onsite are securely stored. | As above | 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 firefighters. Pollution of water or land | As above. | Medium | Medium | Medium | Risk of accidental combustion of waste is moderate. | As above (excluding comments on access to waste). Permitted activities do not include the burning of waste. | Low |
| All surface waters close to and downstream of the site | Spillages of liquids, leachates, contaminated rainwater run-off from wastes 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 | High | High | All of the site is covered by sealed, impermeable surfacing which is sloped to direct waters to drains. | Operational control - routine maintenance of drainage systems. | Very low |

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| All surface waters close to and downstream of the site | As above | Chronic effects: deterioration of water quality | As above. Indirect run-off via the soil layer | Low | High | Medium | All wastes are stored within containers and on an impermeable surface serviced by sealed, surface or foul water drainage systems | Operational control - routine maintenance of drainage systems. | Low |
| Abstraction from watercourse downstream of facility (for agricultural or potable use) | As above | Acute effects: closure of abstraction intakes | Direct runoff then abstraction | Low | Medium | Low | As above. | As above. | 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 | Low | Medium | Low | As above | As above. | 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 | As above | As above. | Low |
| Protected sites – European sites and SSSI's | Any | Harm to protected site due to toxic contamination, nutrient enrichment, smothering, disturbance, predation, etc. | Any | Low | Medium | Medium | Waste operations may cause harm to, and deterioration of, nature conservation sites. The site is within 200m of the Rheidol Shingles and Backwaters SSSI | Operational control – site sweeping, litter picking, vermin control, maintenance of drainage systems. | Low |