

Generic Risk Assessment: standard rules set number SR2019 No6

Standard Facility: Treatment of waste tyres for recovery

Location: Applies to all potential locations

Version: 1

Date: xx/xx/xx

The risks covered in this generic risk assessment are those which are associated with the activity covered in Standard rules set SR2019 No6. The risk assessment covers the source, harm and pathway of the risk. The judgement of the risk and the risk management covered in the permit to reduce the magnitude of the risk. Any residual risk after management of the risk will be controlled by compliance.

The standard rule set can be viewed [here](#).

Contents

1. [Local Human Population](#)
2. [All surface waters close to and downstream of site.](#)
3. [Abstraction from watercourse downstream of facility \(for agricultural or portable use\)](#)
4. [Groundwater](#)
5. [Protected sites \(European sites and SSSIs\)](#)
6. [Guidance](#)

Risk Assessment

1. Local human population

1.1. The release of particulate matter (dusts), via air transport then inhalation. The harmful consequences if things go wrong is the harm to human health (respiratory irritation and illness).

- How likely is this contact = Low
- How severe will consequences be if this occurs = Medium
- What is the overall magnitude of the risk = Medium
- **The magnitude of this risk after management is Low.**

The permitted waste types do not include dusts, powders or loose fibres. To manage the risk, there shall be no point source emissions to air under this standard rules. All treatment of waste is within a building. Emissions of substances not controlled by emission limits in the permit (if required) should be minimised in the management system and in an emissions management plan.

1.2. The release of particulate matter (dusts) via air transport then deposition. The harmful consequences if things go wrong is nuisance (dust on cars, clothing etc).

- How likely is this contact = Low
- How severe will consequences be if this occurs = Low
- What is the overall magnitude of the risk = Low
- **The magnitude of this risk after management is Low.**

The permitted waste types do not include dusts, powders or loose fibres. To manage the risk, there shall be no point source emissions to air under this standard rules. All treatment of waste is within a building. Emissions of substances not controlled by emission limits in the standard rules (if required) should be minimised in the management system and in an emissions management plan.

1.3. Waste, litter and mud on local roads via vehicles entering and leaving the site. The harmful consequences if things go wrong are nuisance, loss of amenity and road traffic accidents.

- How likely is the contact = Low
- How severe will consequences be if this occurs = Low
- What is the overall magnitude of the risk = Low
- **The magnitude of risk after management is Low.**

To manage the risk emissions of substances not controlled by emission limits in the standard rules (if required) should be minimised in the management system and in an emissions management plan.

Appropriate measures include loads of waste that are being taken off site being sheeted.

1.4. Odour via air transport than inhalation. The harmful consequence if things go wrong are nuisance and loss of amenity.

- How likely is the contact = Low
- How severe will consequences be if this occurs = Medium
- What is the overall magnitude of the risk = Low

- **The magnitude of risk after management is Low.**

The only waste type which can be accepted is tyres, which is not a putrescible waste. The rules limit the maximum quantity of waste that can be stored and also the length of time. No waste shall remain on the site for more than 3 months. All treatment is to take place within a building.

Emissions of substances not controlled by emission limits in the permit (if required) should be minimised in the management system and in an odour management plan.

1.5. Noise and vibration via the air and vibration through the ground. The harmful consequences if things go wrong are nuisance, loss of amenity and loss of sleep.

- How likely is the contact = Medium
- How severe will consequences be if this occurs = Medium
- What is the overall magnitude of the risk = Medium
- **The magnitude of risk after management is Low.**

To manage the risks all treatment of waste is within a building and hours of operation will be controlled through planning permission. Emissions of noise and vibration should be minimised in the management system and a noise and vibration management plan.

1.6. Pests (including scavenging animals, birds and other pests e.g. flies) via air transport and over land. The harmful consequences if things go wrong are harm to human health, nuisance and loss of amenity.

- How likely is the contact = Low
- How severe will consequences be if this occurs = Low
- What is the overall magnitude of the risk = Low
- **The magnitude of risk after management is Low.**

To manage the risks the standard rules set limits the maximum quantity that can be stored, and also on length of time waste shall remain on site (no waste shall remain on site for more than 3 months). All treatment of waste is within a building. The only waste type permitted is tyres and this is not a putrescible waste. Pests shall be minimised in the management system.

1.7. Windblown litter. The harmful consequences if things go wrong are nuisance and loss of amenity.

- How likely is the contact = Low
- How severe will consequences be if this occurs = Low
- What is the overall magnitude of the risk = Low
- **The magnitude of risk after management is Low.**

To manage the risks all treatment of waste is within a building. Emissions of substances not controlled by emission limits) shall be minimised in the management system and an emission management plan.

1.8. Contaminated waters used for recreational purposes via direct contact or ingestion. The harmful consequences if things go wrong are harm to human health.

- How likely is the contact = Low
- How severe will consequences be if this occurs = Medium
- What is the overall magnitude of the risk = Low
- **The magnitude of risk after management is Low.**

There are no liquid waste types allowed.

To manage the risks all liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator

has used other appropriate measures. Emissions of substances not controlled by emission limits (if required) should be minimised in the management system and in a Fire Prevention plan.

1.9. Flooding of the site via flood waters. The harmful consequences if things go wrong is the potential for waste to be washed off site and contaminated buildings, gardens, natural habitats downstream.

- How likely is the contact = Low
- How severe will consequences be if this occurs = Low
- What is the overall magnitude of the risk = Low
- **The magnitude of risk after management is Low.**

All treatment of waste is within a building. To manage the risks emissions of substances not controlled by emission limits (if required) should be minimised in the management system and limits to maximum quantity of waste that can be stored have been included in the standard rules set.

1.10. Serious fire via air transport then inhalation or deposition. Direct run off of fire water across the site to surface waters. The harmful consequences if things go wrong are nuisance, harm to human health, and loss of amenity and deterioration of water quality.

- How likely is the contact = Medium
- How severe will consequences be if this occurs = Medium
- What is the overall magnitude of the risk = Medium
- **The magnitude of risk after management is Low.**

To manage the risks, the standard rules limit the maximum quantity that can be stored. A management system and fire prevention plan is mandatory and will set out control measures which included security, fire prevention, fire detection and fire response. Emissions of substances not controlled by emission limits (if required) should be minimised in the management system and the fire prevention plan.

1.11. Arson and/or vandalism causing the release of polluting materials to air (smoke or fumes), water or land via air transport of smoke, spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches. The harmful consequences if things go wrong are respiratory irritation, illness and nuisance to local population. It could lead to injury of staff, firefighters or arsonists/vandals as well as pollution of water or land.

- How likely is the contact = Medium
- How severe will consequences be if this occurs = Medium
- What is the overall magnitude of the risk = Medium
- **The magnitude of risk after management is Low.**

To manage the risks the standard rules set has limits to restrict the maximum quantity of waste that can be stored and no liquid waste can be accepted. All liquids in containers whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures. Management systems and fire prevention plans are both mandatory and will set out control measures, including security, fire prevention, fire detection and fire response.

1.12. Accidental fire causing the release of polluting materials to air (smoke or fumes) water or land via air transport of smoke and spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches. The harmful consequences if things go wrong are respiratory irritation, illness and nuisance to local population. It could lead to injury of staff, firefighters as well as pollution of water or land.

- How likely is the contact = Medium
- How severe will consequences be if this occurs = Medium
- What is the overall magnitude of the risk = Medium
- **The magnitude of risk after management is Low.**

To manage the risks the standard rules set has limits to restrict the maximum quantity of waste that can be stored. A management system and fire prevention plans are both mandatory and will set out control measures, including security, fire prevention, fire detection and fire response.

2. All surface waters close to and downstream of site.

2.1. Spillage of liquids, contaminated rainwater run-off from via direct run-off from the site across ground surface, via surface water drains and ditches and indirect run-off via the soil layer. The harmful consequences if things go wrong is the deterioration of water quality.

- How likely is the contact = Low
- How severe will consequences be if this occurs = Low
- What is the overall magnitude of the risk = Low
- **The magnitude of risk after management is Low.**

No liquid waste types can be accepted under the standard rules set.

To manage the risks all liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures. No point source emissions are allowed. Emissions of substances not controlled by emission limits (if required) should be minimised in the management system and in an emissions management plan.

2.2. Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste (e.g. containing suspended solids) via direct run-off from the site across ground surface via surface water drains and ditches. The harmful consequences if things go wrong has acute effects: oxygen depletion, fish kill and algal blooms.

- How likely is the contact = Medium
- How severe will consequences be if this occurs = Medium
- What is the overall magnitude of the risk = Medium
- **The magnitude of risk after management is Low.**

No liquid waste types can be accepted at the site.

To manage the risks all liquids in containers, whose emissions to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures.

Emissions of substances not controlled by emission limits (if required) should be minimised in the management system and in a fire prevention plan.

2.3. Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste (e.g. containing suspended solids) via indirect run-off via the soil layer. The harmful consequences if things go wrong has chronic effects: deterioration of water quality.

- How likely is the contact = Medium
- How severe will consequences be if this occurs = Medium
- What is the overall magnitude of the risk = Medium
- **The magnitude of risk after management is Low.**

The waste types are non-hazardous so harm is likely to be temporary and reversible. No liquid waste types can be accepted. Wastes stored outside must be on an impermeable surface with sealed drainage system if the site is within a groundwater protection zone 2, and sites cannot be within GPZ1.

To manage the risks all liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures.

Emissions of substances not controlled by emission limits (if required) should be minimised in the management system and in a fire prevention plan.

2.4. Serious fire via direct run off of fire water across site to surface waters. The harmful consequences if things go wrong are loss of amenity and deterioration of water quality.

- How likely is the contact = Medium
- How severe will consequences be if this occurs = High
- What is the overall magnitude of the risk = Medium
- **The magnitude of risk after management is Low.**

There are limits that limit maximum quantities and storage duration, which reduce excessive and/or aging stockpiles and self-heating risks.

To manage the risks the standard rules set limits the maximum quantity that can be stored. A management system and fire prevention plans are both mandatory and will set out control measures including security, fire prevention, fire detection and fire response. Emissions of substances not controlled by emission limits (if required) should be minimised in the management system and in a fire prevention plan.

3. Abstraction from watercourse downstream of facility (for agricultural or portable use)

3.1. Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste (e.g containing suspended solids) via direct run-off from site across the ground surface (surface water drains and ditches) then abstraction. The harmful consequences if things go wrong have acute effects: closure of abstraction intakes.

- How likely is the contact = Medium
- How severe will consequences be if this occurs = Medium
- What is the overall magnitude of the risk = Medium
- **The magnitude of risk after management is Low.**

Watercourses must have medium/high flow for abstraction to be permitted, which will dilute contaminated run-off and that waste types allowed under this standard rules set are non-hazardous with no liquid waste types.

To manage the risks all liquid containers, whose emission to water or land which could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures. Emissions of substances not controlled by emission limits (if required) should be minimised in the management system and in the fire prevention plan.

4. Groundwater

4.1. Spillage of liquids, leachate from waste, contaminated rainwater run-off transported through soil and groundwater then extraction at borehole. The harmful consequences if things go wrong is the contamination of public or private water supplies requiring treatment of water or closure of the borehole.

- How likely is the contact = Low
- How severe will consequences be if this occurs = Low
- What is the overall magnitude of the risk = Low
- **The magnitude of risk after management is Low.**

No liquid waste types are allowed under the standard rule set. Wastes stored outside must be on an impermeable surface with sealed drainage system if the site is within a groundwater protection zone 2, and sites cannot be within GPZ1.

To manage the risks all liquids in containers, whose emissions to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures. No point source emissions are allowed and a 50 metre exclusion distance to groundwater supplies for human consumption is included in the standard rules set.

Emissions of substances not controlled by emission limits (if required) should be minimised in the management system and in an emissions management plan.

5. Protected sites (European sites and SSSIs)

5.1. Harm to protected sites from any source such as toxic contamination, nutrient enrichment, smothering, disturbance and predation via any pathway such as air, land or water.

- How likely is the contact = Low
- How severe will consequences be if this occurs = Low
- What is the overall magnitude of the risk = Low
- **The magnitude of risk after management is Low.**

All treatment will be indoors. There will be no liquid wastes. Wastes stored outside must be on an impermeable surface with sealed drainage system if the site is within a groundwater protection zone 2, and sites cannot be within GPZ1.

To manage the risks the standard rules set states that activities shall not be carried out within 200m of a European Site or SSSI (Distance criteria as agree with Natural England/Countryside Council for Wales). All liquids in containers whose emissions to water or land which could cause pollution shall be provided with secondary containment, unless the operator has used other appropriate measures. All potential risks should be minimised in the management system and emissions management plan.

Guidance

1. Receptors to consider should include atmosphere, land, surface waters, groundwater, humans, wildlife and their habitats. A single receptor may be a risk from several different sources and all must be addressed.
2. The source of the hazard will be the activity or operation taking place for which a particular hazard may arise.
3. Harm may arise when a specific hazard is realised.
4. Pathways are the routes or means by which defined hazards may potentially realise their consequences at the receptors.
5. The probability of exposure is the likelihood of the receptors being exposed to the hazard. Example definitions;
 - High - exposure is probable: direct exposure likely with no/few barriers between hazard source and receptor.
 - Medium - exposure is fairly probably: feasible exposure possible-barriers to exposure less controllable.
 - Low - exposure is unlikely: several barriers exist between hazards source and receptors to mitigate against exposure.
 - Very low- exposure is very unlikely: effective, multiple barriers in place to mitigate against exposure.
6. The consequences of a hazard being realised may be actual or potential harm. This will include being on a high/medium/low/very low score using attributes and scaling to consider 'harm'.
7. The magnitude of the risk is determined by combining the probability with the magnitude of the potential consequences.
 - High risks require additional assessment and active management.
 - Medium risks require additional assessment and may require active management/monitoring.
 - Low and very low risk require periodic review.
8. Risk management involves breaking or limiting the source-pathway-receptor linkage to reduce risk.