SR2021 No 12: Generic risk assessment for vehicle storage, depollution & dismantling (authorised treatment) facility

The Environment Agency produces the generic risk assessments for all standard rules permits. These list the potential risks and how to manage them.

Check this generic risk assessment to understand:

* the potential risks of storing and treating end-of-life vehicles

* if your proposed activity has the same risks and can you apply for the standard rules permit

* how to manage the risks effectively

Each risk comprises:

* information about the source, pathway and receptor – and the potential harm to that receptor

* a judgement of the level of risk and justification of that judgement

* actions for managing the risk (through permitting) and a residual risk rating after managing it

Risk management involves breaking or limiting the source-pathway-receptor linkage to reduce the risk. If we set minimum distances we explain the basis of the distance, for example by modelling.

We will control the residual risk (after risk management) when we assess compliance.

If you need to check the meaning of any terms we have used (in the context of this risk assessment), see the explanation of terms(#terms).

Risks to people living in close proximity to the site

Dust

Dust travels through the air. We have assessed the potential harm as follows:

* general worsening of air quality
* nuisance and harm to human health
* loss of amenity

We have judged the:

* likelihood of the hazard affecting the receptor as low
* the overall severity of potential consequences as medium
* overall risk rating as low

The reasons for giving the activity this rating are because:

* permitted waste types do not include dusts, powders or loose fibres
* permitted quantities of waste are small
* the rule set does not allow any point source emissions to air

To manage the risk we may require an emissions management plan. Taking this action will control the risk and rate it as very low.

Odour

Odour travels through the air. We have assessed the potential harm as follows:

* nuisance
* loss of amenity

We have judged the:

* likelihood of the hazard affecting the receptor as low
* the overall severity of potential consequences as low
* overall risk rating as low

The reasons for giving the activity this rating are because:

* the only waste which can be accepted is end-of-life vehicles, which are very unlikely to degrade and generate odours.

To manage the risk we may require an odour management plan. Taking this action will control the risk and rate it as very low.

Noise and vibration

Noise and vibration travel through the air. We have assessed the potential harm as follows:

* nuisance
* loss of amenity

We have judged the:

* likelihood of the hazard affecting the receptor as low
* the overall severity of potential consequences as low
* overall risk rating as low

The reasons for giving the activity this rating are because:

* permitted quantities of waste are small
* permitted activities do not include potentially noisy activities such as baling, shearing, compacting or crushing

To manage the risk we may require a noise and vibration management plan. Taking this action will control the risk and rate it as low.

Litter

Litter travels through the air. We have assessed the potential harm as follows:

* nuisance
* loss of amenity

We have judged the:

* likelihood of the hazard affecting the receptor as low
* the overall severity of potential consequences as low
* overall risk rating as low

The reasons for giving the activity this rating are because the permitted activities are unlikely to generate windblown litter

To manage the risk we may require an emissions management plan. Taking this action will control the risk and rate it as very low.

Waste and mud on local roads

Vehicle movements can cause waste and mud on local roads. We have assessed the potential harm as follows:

* nuisance
* loss of amenity

We have judged the:

* likelihood of the hazard affecting the receptor as low
* the overall severity of potential consequences as low
* overall risk rating as low

The reasons for giving the activity this rating are because:

* the waste type is limited to end-of-life vehicles which will not generate mud
* permitted quantities of waste are small

To manage the risk we may require an emissions management plan. Taking this action will control the risk and rate it as very low.

Pests such as flies or scavengers

Pests such as flies or scavengers can travel through the air or over land. We have assessed the potential harm as follows:

* nuisance
* loss of amenity

We have judged the:

* likelihood of the hazard affecting the receptor as very low
* the overall severity of potential consequences as very low
* overall risk rating as very low

The reasons for giving the activity this rating are because the only waste which can be accepted is end-of-life vehicles, which do not degrade quickly and are unlikely to attract flies or scavengers.

To manage the risk we may require management system improvements. Taking this action will control the risk as very low.

Flooding of the site

Flood waters can flood the site.

We have assessed the potential harm as follows:

* waste including liquid hazardous wastes may be washed off site during a flood, which could contaminate neighbouring and downstream premises

We have judged the:

* likelihood of the hazard affecting the receptor as low
* the overall severity of potential consequences as high
* overall risk rating as medium

The reasons for giving the activity this rating are because:

* 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.

* the permitted facility cannot be within 200 metres of a European site, Ramsar, Site of Special Scientific Interest, or Marine Conservation Zone.

* the permitted facility cannot be located in a groundwater source protection zone 1 or 2. Where a source protection zone has not been defined then not within 50 metres of any well, spring or borehole used for the supply of water for human consumption. This includes private water supplies.

* The permitted facility cannot be within 10 metres of an unculverted watercourse.

To manage the risk we may require management system improvements. Taking this action will control the risk and rate it as low.

Risks to local human population and local environment

Accidental serious fire

Fire can cause smoke to travel through the air and contaminated water to run-off over land. Fires can also cause significant disruption to neighbouring receptors such as schools, transport infrastructure and neighbouring business premises.

We have assessed the potential harm as follows:

* nuisance
* harm to human health
* loss of amenity
* deterioration of water and air quality
* impact on commerce
* impact on nature conservation sites

We have judged the:

* likelihood of the hazard affecting the receptor as medium
* the overall severity of potential consequences as medium
* overall risk rating as medium

The reasons for giving the activity this rating are because:

* the fire prevention plan provided with the standard rules includes measures to minimise the likelihood of a fire happening, aim for a fire to be extinguished within 4 hours and minimises the spread of fire within the site and to neighbouring sites
* the rules limit the quantities of waste that can be stored on site
* no operations can take place within:
    - 200 metres of a European site, Ramsar, Site of Special Scientific Interest or Marine Conservation Zone;
    - 50 metres of any well, spring or borehole used for the supply of water for human consumption (including private water supplies);
    - 10 metres of an unculverted watercourse;
    - a groundwater Source Protection Zone 1 or 2;
    - 10 metres of a high voltage powerline, railway line or station, major trunk road or motorway.
* there is a requirement for an impermeable surfacing and sealed drainage system in permitted areas where any wastes are treated or where undepolluted ELVs or contaminated parts or tyres are stored.

To manage the risk we may require management system improvements. Taking this action will control the risk and rate it as low.

Risk to surface waters

These risks relate to surface waters close to and downstream of the site.

Liquid spills and contaminated rainwater run-off

This risk could cause water quality to deteriorate through:

* run-off from the site across the ground
* surface water drains and ditches
* run-off through the soil

We have judged the:

* likelihood of the hazard affecting the receptor as low
* the overall severity of potential consequences as high
* overall risk rating as medium

The reasons for giving the activity this rating are because:
* end-of-life vehicles will generate hazardous liquids. There is potential for contaminated rainwater run-off from end-of-life vehicles stored outside buildings especially during heavy rain and the loss of hazardous liquids from containers as a result of containment failure.
* 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.
* The permit requires an impermeable surfacing and sealed drainage system in permitted areas where any wastes are treated or where undepolluted ELVs or contaminated parts or tyres are stored.

To manage the risk we may also require management system improvements. Taking these actions will control the risk and rate it as low.

Risk to groundwater from liquid spills and contaminated run-off

Liquid spills and contaminated rainwater run-off can travel through soil and groundwater. The water could then be abstracted from a borehole.

We have assessed the potential harm as follows:

* contamination of public or private water supplies – this would require treating the water or closing the borehole

We have judged the:

* likelihood of the hazard affecting the receptor as medium
* the overall severity of potential consequences as high
* overall risk rating as medium

The reasons for giving the activity this rating are because:

* the facility cannot be within a groundwater source protection zone 1 or 2 or, where a source protection zone has not been defined, 50 metres of any well, spring or borehole used for the supply of water for human consumption (including private water supplies)
* we require all liquids whose emission to water or land could cause pollution to be provided with secondary containment, unless the operator has used other appropriate measures
* we require an impermeable surface and a sealed drainage system in higher risk permitted areas
* the fire prevention plan contains measures for managing firewater runoff

To manage the risk we may require an emissions management plan. Taking this action will control the risk and rate it as low.

Risk to protected sites

Protected sites include:

* National Parks and Areas of Outstanding Natural Beauty
* European sites
* Marine Conservation Zones
* Sites of Special Scientific Interest
* Special Areas of Conservation
* Special Protection Areas
* Ramsar wetland sites

There can be a risk to protected sites from any source and by any pathway.
We have assessed the potential harm to protected sites, they include (but are not limited to) the following:

* toxic contamination
* nutrient enrichment
* smothering
* disturbance
* predation

We have judged the:

* likelihood of the hazard affecting the receptor as low
* the overall severity of potential consequences as low
* overall risk rating as low

The reasons for giving the activity this rating are because:

* the permit's exclusion distances do not allow sites within a minimum distance of these receptors
* dust and drainage controls are required as set out in other risks

To manage the risk we may require an emissions management plan. Taking this action will control the risk and rate it as low.

Explanation of terms

Receptor

The things at risk and that need protecting.

Receptors considered include: atmosphere, land, surface waters, groundwater, humans, wildlife and their habitats.

A single receptor may be at risk from several different sources and all must be addressed.

Source

The agent or process that has the potential to cause harm.

A contaminant or pollutant (a hazard) that has the potential to cause harm. For example, the activity or operation taking place for which a particular hazard may arise.

Harm

The harmful consequence to the receptor if the hazard is realised.

Pathways

The route or means by which a defined hazard may affect a receptor.

###Source-pathway-receptor linkage

There has to be a link between the source, pathway and receptor for there to be a risk.

Likelihood of exposure

This is the likelihood of the receptors being exposed to the hazard. The meaning of the definitions are:

* high – exposure is probable – direct exposure is likely with no or few barriers between the hazard source and the receptor
* medium – exposure is fairly probable - feasible exposure is possible as the barriers to exposure are less controllable

* low – exposure is unlikely – several barriers exist between the hazard source and receptor to reduce exposure
* very low – exposure is very unlikely – effective, multiple barriers are in place to reduce exposure

Overall magnitude of potential consequence

This is the severity of the consequence if the hazard is realised and may cause actual or potential harm.

This will have a high, medium, low or very low rating using attributes and scaling to consider 'harm'.

Risk rating

We work out the risk rating by combining the likelihood of exposure with the magnitude of the potential consequences.

We assign these ratings:

* high risk – requires additional assessment and active management
* medium risk – requires additional assessment and may need active management and, or monitoring (or both)
* low and very low risks will require a periodic review