



**WAS-G-EASR-003**

**SEPA guidance: waste storage and treatment**

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## Accessibility statement

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## Introduction

This document provides guidance for anyone carrying out the storage and treatment of waste under The Environmental Authorisations (Scotland) Regulations 2018 (EASR).

Most permit and registration conditions are objective-based: SEPA defines the objective is but it’s up to the Authorised Person to determine how best to meet that objective. For example, to make sure dust or odour does not cause harm outside the site’s boundary. This guide will help Authorised Persons work out how to meet these objectives. Further guidance on specific activities (e.g. composting, WEEE treatment, depollution of waste motor vehicles) is also available.

If the activity is listed in Schedule 20 of EASR, it may also be subject to the [Waste Treatment Best Available Techniques (BAT) Conclusions](https://www.sepa.org.uk/media/594490/bat-conclusions.pdf).

The guidance provided in this document is not definitive, and it does not replace the general obligation to manage each operation in the context of its specific location and characteristics. In certain situations, a higher standard of environmental protection may be necessary, for example, where there are local sensitive receptors.

## Written Management System

<Report date here (month, year)>

Authorised Persons must prepare and maintain a written management system (in older authorisations this may be referred to as the ‘Working Plan’).

The detail in a written management system should be proportionate to the nature, scale and complexity of the installation, and the range of potential environmental impacts.

Have and maintain the following as part of the management system:

* site infrastructure plan
* waste acceptance criteria
* inventory of emissions
* residues management plan
* odour management plan, if required
* noise management plan, if required
* dust, mud and litter management plans, if required
* pest management plan, if required

The written management system should include inspection and maintenance procedures for all pollution control infrastructure, including for example the:

* impermeable surfacing and drainage system
* abatement systems
* site security

For more complex sites at Permit level, written management system should include clear environmental performance procedures, paying particular attention to:

* Staff responsibilities and training
* Process control
* Monitoring and measurement
* Emergency preparedness and response
* Records maintenance

Use the management system to review the development of cleaner technologies and their applicability to site operations in particular:

* after substantiated environmental events
* when planning investment decisions, for example new items of plant

Have a document control procedure that clearly describes how and when you will periodically review documentation and maintain version control.

## Waste pre-acceptance

Permits and Registrations set out the waste types and quantities authorised for the facility.

Implement waste pre-acceptance procedures so enough is known about a waste to confirm it is suitable for acceptance before it arrives.

 Follow a risk-based approach, considering:

* the source and nature of the waste
* its hazardous properties
* potential risks to process safety and the environment
* knowledge about the previous waste holder

Some facilities receive waste on an ad hoc basis. In those instances, pre-acceptance checks can still be carried out before the waste is accepted. For example, through the exchange of information at the weighbridge.

Get enough information from the waste producer to be satisfied the waste has been properly classified as set out in [WM3](https://www.gov.uk/government/publications/waste-classification-technical-guidance).

In the case of household and similar non-household waste (including skip waste) waste is pre-accepted by the terms and conditions of the contract in place (for example skip waste companies excluding fridges and freezers or hazardous wastes).

For commercial and industrial waste, collect the following from potential customers:

* details of the waste producer including organisation name, address and contact details
* a description of the waste
* the waste code (also referred to as European Waste Classification code)
* the source of the waste (the process that has created the waste)
* information on the nature and variability of the waste production process
* information about the history of the producer site if it may be relevant to classification
* the waste’s physical form
* the waste’s composition (based on representative samples if necessary)
* a description of the waste’s odour and whether it is likely to be odorous

For mirror entry codes (as defined in WM3), assess the waste to assign the relevant mirror entry code and keep a record of that assessment.

Sample information may not be necessary if the origin of the waste is reliably understood, and it clearly shows that the waste is non-hazardous. However, a visual assessment alone will not be enough to assess whether mirror entry waste is hazardous or not.

If the waste is a mirror entry and has not been properly assessed, assume it is the hazardous entry as a precautionary measure. The pre-acceptance information should be verified by contacting or visiting the producer.

After assessment and classification, technically assess the waste’s suitability for storage and treatment at the facility.

Reassess the information required at pre-acceptance if the:

* waste changes
* process giving rise to the waste changes
* waste received does not conform to the pre-acceptance information

## Waste acceptance

Implement waste acceptance procedures to ensure the characteristics of the waste received matches the information obtained during waste pre-acceptance. This is to confirm the waste is as expected and can be accepted. If it is not, reject it or, where that is not possible, accept it as a non-conforming waste.

When deciding whether to accept waste, check the relevant storage areas and treatment processes have the physical capacity needed to handle the waste. Do not accept if waste capacity is not available or if the limits in the permit or registration would be breached.

Visually check wastes and verify against pre-acceptance information and transfer notes before accepting on site.

Check and validate all transfer documentation and resolve discrepancies before accepting the waste. If the incoming waste classification or description is incorrect or incomplete, then address this with the original waste producer or waste carrier (or both) during waste acceptance. Record any non-conformance.

Have clear criteria to identify non-conforming wastes and wastes to be rejected. Have written procedures for recording, reporting, and tracking non-conforming and rejected wastes. These should include:

* using quarantine storage
* notifying the relevant customer or waste producer
* record a justification for accepting non-conforming waste

Weigh each load of waste on arrival to confirm the quantities against the accompanying paperwork, unless alternative reliable and representative systems are available (for example, based upon density and volume).

Record the weight to monitor available capacity at the facility. Records of incoming waste are not required for waste from householders deposited at Household Waste Recycling Facilities.

The person carrying out waste acceptance checks should be trained to effectively identify and manage any non-conformances in the loads received, to comply with the Duty of Care for waste and the permit and registration conditions.

Watch waste being unloaded, so it can be quarantined if necessary, before being mixed with other material.

## Quarantine storage

A dedicated waste quarantine area must be in place to temporarily store waste being rejected, or non-conforming waste whilst it is being assessed.

Quarantine storage must be separate from all other storage and clearly marked.

Quarantine areas must have impermeable surface with sealed drainage if there is a risk of contaminated runoff from the quarantined waste.

Where there is a risk of fugitive emissions from quarantined waste store it in closed or covered containers or within a building. For example, sheet quarantined contaminated soil or store it in a covered skip to prevent rainfall or wind from mobilising pollutants.

Have written procedures for dealing with wastes held in quarantine, including a maximum storage volume. The maximum storage time must take account of the potential for odour generation, pest infestation and storage conditions. If the waste is infested or odorous aim to remove it within 24 hours or sooner.

## Waste storage

To reduce the environmental risk associated with storage and handling, use a combination of the following techniques.

### General

Where possible, locate storage areas away from watercourses and sensitive perimeters, for example those close to housing. Further, locate storage areas in such a way to eliminate or minimise unnecessary handling within the facility.

### Security

Have security measures to prevent unauthorised access to the waste, so preventing:

* damage to equipment
* theft
* illicit dumping and fly-tipping
* arson

Depending on the activity and location, consider a combination of:

* enclosure (usually with fences)
* controlled entry points
* lighting
* warning signs
* 24-hour surveillance, such as CCTV
* security guards

### Capacity

Document the maximum storage capacity of the facility and its designated storage areas. Regularly monitor the quantity of stored waste against the allowed maximum capacities, and do not exceed them. Clearly mark all waste storage areas and provide signs indicating the type of waste stored there.

Understand maximum residence times and treat wastes or remove them from site as soon as possible. Except for inert waste, follow the first-in-first-out principle, unless it is necessary to prioritise more recently received wastes because they pose a higher risk of environmental harm. For example, when storing refuse derived fuel (RDF) and solid recovered fuel (SRF), implement a bale identification system so bales can be removed in date order.

### Segregation

Store wastes separately depending on their properties to enable easier and environmentally safer management.

Keep different types of waste segregated if contamination would inhibit the reuse, recycling or recovery of the waste. Where reusable or recyclable materials, such as paper, plastic, metal, greenfield soils or WEEE have been collected separately, they must not be:

* mixed with other waste or material which could hamper their reuse or recycling, or
* stored in a manner which could hamper their reuse or recycling

For example, reusable WEEE should be stored indoors or in containers to avoid damage.

### Site surfaces and drainage

Unless stated otherwise in the Permit or Registration (e.g. at sites storing inert waste only), store all waste on an impermeable surface with sealed drainage.

For new sites, infrastructure should be designed and installed in line with CIRIA C736. Use a chartered civil or structural engineer to provide construction quality assurance and validate the construction of all facilities.

Storage areas should:

* contain contaminated run off
* prevent incompatible wastes coming into contact with each other
* be designed to allow access for inspection and cleaning

Impermeable surfaces must have sealed construction joints and be designed to prevent spillage escaping off site.

Storage area surfaces used for putrescible waste should be of a type and quality suitable for effective cleaning and or disinfection.

Design bunkers, bays and pits so that waste and debris does not build-up in inaccessible areas such as corners. Regularly clean bunkers, bays and pits.

Where possible keep clean rainwater separate from wastes and waste waters to limit storage and treatment requirements.

Drainage and vessels should be accessible to allow cleaning and maintenance. Remove debris and clean the channels and sumps to prevent odour, pest infestations and maximise drainage.

Have a documented inspection and maintenance programme for impermeable surfaces and containment facilities.

### Above ground tanks and ‘bulk’ storage

Locate above ground tanks on an impermeable surface with secondary containment.

Secondary containment (bunds) must:

* be impermeable, stable and resistant to the stored materials
* the greater of 110% of the capacity of the largest container the bund is protecting or, in cases of two or more containers, 25% of the combined volume of all the tanks the bund is protecting
* have pipework routed within bunded areas with no penetration of contained surfaces
* be designed to catch leaks from tanks or fittings
* have regular visual inspections – any contents must be pumped out or otherwise removed under manual control after checking for contamination
* be fitted with a high-level alarm (where appropriate) if not frequently inspected
* have tanker connection points within the bund (where possible), and if not possible provide adequate containment for spillages or leakage
* have programmed engineering inspections (extending to water testing if structural integrity is in doubt)
* be emptied of rainwater regularly to maintain the containment capacity

It should be possible to close all connections to vessels, tanks and secondary containment using suitable valves. Fit a valve close to the tank where there are bottom outlets and have at least two isolation points in case of valve failure.

Direct overflow pipes to another vessel, holding area or an appropriate treatment system.

Cover all bulk storage tanks. Where there is a risk of offensive odour emissions, vent tanks and vessels through suitable abatement, or direct emission to a gas recovery system.

### Submerged or underground tanks

Minimise using subsurface storage infrastructure and decommission it where possible.

For subsurface structures:

* establish and record the routing of all site drains and subsurface pipework
* identify all subsurface sumps and storage vessels
* engineer systems to minimise leakages from pipes and make sure they can be detected quickly if they do occur
* provide secondary containment or leakage detection for subsurface pipework, sumps and storage vessels
* establish an inspection and maintenance programme for all subsurface structures, for example, pressure tests, leak tests, material thickness checks or CCTV

### Containers, IBCs and drums

Where practicable, store containerised waste under cover. Under cover storage provides better protection for containers than open air storage and minimises the generation of contaminated water. Covered storage also:

* lowers temperature fluctuations that can cause a pressure build-up in containers
* reduces the degradation of containers through weathering

Empty, re-package or otherwise manage containerised waste under cover. If this activity could give rise to emissions carry it out within an enclosed building with suitable air extraction, abatement and drainage.

Provide secondary containment for all drums and other containers which:

* are greater than 200 litres in capacity and are kept outside, and
* contain liquids (waste or otherwise) that could be harmful to the environment if spilled

Containers should be fit for purpose, that is:

* in sound condition
* undamaged not corroded, if metal
* have well-fitting lids
* suitable for the contents
* with caps, valves and bungs in place and secure within the manufacturers use-by date, particularly for plastic containers

Containers should remain labelled during storage in the way it was labelled at acceptance. Handle and store containers so that the label is readily visible and continues to be legible.

Store all containers in a way that allows easy inspection. Check any containers (and pallets they may be stored on) regularly. Non-compliant containers and pallets should be made safe. Immediately manage any unsound, poorly labelled or unlabelled containers (for example, by re-labelling, over-drumming and transferring the container’s contents).

Do not use containers, tanks and vessels beyond their specified design life. Only use them for the purpose, or substances, they were designed for.

Where waste is wrapped such as RDF and SRF, use high-density polyethylene (HDPE) membrane or equivalent to prevent water entering, access by pests and odour. Inspect bales regularly and rewrap any that are damaged.

## Waste treatment

### Overarching concept

Waste treatment should have a clear and defined purpose. Understand and monitor waste processes to ensure waste is treated effectively.

Have accurate and up-to-date written details of the treatment activities, abatement and control equipment. Include information about the characteristics of the waste to be treated and the waste treatment processes, including:

* simplified process flow sheets that show the origin of the emissions
* diagrams of the main plant items where they have environmental relevance, for example, storage, tanks, treatment and abatement plant design
* details of treatment processes
* an equipment inventory, detailing plant type and design parameters
* waste types to be subjected to the process
* the control system philosophy and how the control system incorporates environmental monitoring information
* the hourly processing capability of waste treatment equipment
* a summary of operating and maintenance procedures

The extent of the information about the treatment activities will depend on the nature, scale and complexity of the facility and the range of environmental impacts it may have.

Have up-to-date details of the actions to take during abnormal operations to ensure compliance with Permit or Registration conditions. Abnormal operating conditions include:

* unexpected releases
* start-up
* momentary stoppages
* breakdowns
* shutdown

### Outputs

Treated output material should meet expectations and be suitable for its intended disposal or recovery route.

Do not make assumptions about the nature of the outputs from the waste treatment processes.

Ensure that the outputs are appropriately classified in accordance with WM3. Failure to properly classify waste may be a breach of the Duty of Care. This is particularly important for fines arising from shredding and trommelling processes, which generally:

* require disposal at cost
* contain a range of contaminants
* are likely to be subject to a mirror entry code, for example 19 12 11\* versus 19 12 12

Outputs which meet end-of-waste criteria must still be stored within the Authorised Place until sold and dispatched to market.

Where appropriate, include a residue management plan in the written management system to ensure that the treatment output is in line with expectations. Use it to monitor and optimise waste treatment performance.

## Emissions

Identify and record all sources of emissions in the management systems (or working plan). This includes all emissions to air and water (including emissions to sewer).

For larger facilities at Permit level, SEPA may set emission limits and monitoring requirements in the authorisation, based on the emissions inventory and environmental risk assessment.

## Enclosure in buildings

Where the risk of environmental harm at sensitive receptors cannot be addressed by alternative measures, it may be necessary to carry out waste storage and treatment within an enclosed building.

An enclosed building means a construction designed to provide sheltered cover and minimise emissions of noise, particulate matter, odour and litter, enclosed on all sides. Keep doorways as small as practicable and consider fast-acting doors which default to the closed position.

Material transfer and storage systems and equipment (for example conveyors, hoppers, containers and tanks) can extend outside so long as they are also fully enclosed.

Regularly assess enclosed building’s integrity where potential faults in building integrity are likely to cause pollution such as odour.

The building’s ventilation system should be properly designed for the building to prevent fugitive emissions and unacceptable noise.

The air inside the enclosed building should be maintained under negative pressure or have a localised extraction system that extracts dirty air from sources of pollution within the building. Sources that could potentially benefit from localised extraction include:

* shredders and trommels
* waste loading and unloading areas
* odorous stockpiles

To reduce emissions of noise, have an appropriate minimum building surface density. Install acoustic seals on doors and windows, following advice from a specialist.

## Point source emissions to water

Identify point source emissions to water and sewer as part of an inventory of emissions.

Discharges to water or sewer must comply with the conditions of an environmental authorisation or trade effluent consent. Emissions limits and monitoring requirements may be set in the authorisation.

Relevant sources of wastewater include:

* runoff from all waste storage and handling areas, including loading and unloading areas
* process water
* condensate collected from treatment process
* waste compactor runoff
* vehicle washing
* washing of containers and vessels
* soil washing effluent
* vehicle oil and fuel leaks
* spills and leaks
* rainwater from bunds around containers and tanks

Segregate uncontaminated water streams (for example clean runoff from roofs) from those that require treatment.

Separate contaminated water streams based on pollutant content and treatment required. For example, collect and treat separately contaminated surface runoff water and process water.

To reduce emissions to water and sewer, consider using an appropriate combination of treatment techniques, including one or more of the following:

* preliminary or primary treatment – equalisation, neutralisation or physical separation
* physico-chemical treatment – adsorption, distillation or rectification, precipitation, chemical oxidation or reduction, evaporation, ion exchange, or stripping
* biological treatment – activated sludge process or membrane bioreactor
* nitrogen removal – nitrification and denitrification
* solids removal – coagulation and flocculation, sedimentation, filtration or flotation

For emissions to water or sewer identified by the emissions inventory, and subject to monitoring or emission limit conditions, carry out monitoring at key locations. For example, either at the:

* inlet or outlet (or both) of the pre-treatment
* inlet to the final treatment
* point where the emission leaves the facility boundary

## Fugitive emissions to water and land

Fugitive emissions are generally controlled by installing correct site infrastructure (impermeable surfaces, drainage systems, tank bunding) and managing surface water runoff.

In addition, implement a spillage response plan and ensure spillages are dealt with immediately.

Stop spillages from entering drains, channels, gullies, watercourses and unmade ground. Make available proprietary sorbent materials, sand, booms or drain mats for use when required.

Keep spill kits at locations close to areas where a spillage could occur and make sure relevant staff know how to use them. Make sure kits are replenished after use.

## Point source emissions to air

Identify point source emissions to air as part of an inventory of emissions. This includes emissions through any kind of duct, pipe, stack etc and includes emissions from open-top biofilters.

Emissions to air must comply with the conditions of an environmental authorisation. Emissions limits and monitoring requirements may be set in the authorisation.

Reduce point source emissions to air (for example dust and odorous compounds) from the treatment of waste using an appropriate combination of abatement techniques. The appropriate combination of abatement techniques would include one or more of:

* adsorption
* biofiltration, biotrickling or bioscrubbing
* cyclone
* fabric filter
* water injection (into a shredder)

Carry out an options appraisal to determine the most appropriate abatement techniques using the following information:

* a characterisation of the pollutants in the emission to be abated (including an appropriate level of speciation, concentration, temperature, pressure, wet or dry etc.)
* the flowrate of the emission stream and its variability over time
* the frequency of the emission and its variability
* the level of reduction required to ensure offensive odours are not detectable beyond the boundary

Depending on the level of reduction required the use of more than one technique may be required.

Assess and design vent and stack locations and heights to ensure dispersion capability is adequate. Dispersion modelling may be needed to establish whether the height of the vent or stack allows emissions to disperse appropriately, preventing any impacts on receptors.

Where monitoring is required, including for odour, install suitable monitoring points which meet the sampling standard for the relevant pollutants.

Use monitoring to demonstrate the effectiveness of abatement, so that preventive or corrective action can be taken as necessary.

Implement contingency measures for abatement system down-time and for any abnormal events, for example biofilter media change, including suspending operations until the site is back under control, or having standby abatement available.

## Measures for odour

Consider a combination of techniques appropriate to the site and activity to prevent odour.

Reject waste that is highly odorous as part of pre-acceptance and waste acceptance procedures unless handled and treated within an enclosed building with appropriate odour control measures, including extraction via odour abatement. Otherwise, talk to the waste supplier to stop it happening again.

Ensure odorous waste arrives at and leaves the facility in covered or enclosed vehicles. Mesh covers are not adequate to control odour. Minimise how long potentially odorous waste is kept at the facility. Making smaller stockpiles increases natural aeration, reducing the risk of anaerobic biodegradation which can cause odour.

Wash empty vehicles before they leave the facility, to remove residues which may be or become odorous. Ensure the run-off from this process is contained and lawfully discharged.

Do not allow contaminated liquids to pool for long periods of time, as they can be a source of odour. Take action to avoid ponding or pooling.

Cover odorous or potentially odorous liquids or keep them in enclosed tanks or containers.

Using masking agents (for example dry nano systems, ozone systems and ionisation systems) is a way of disguising an odour problem but is not a substitute for preventative measures.

Respond effectively and proportionately to any process monitoring which indicates a problem, or reports from the community of odour pollution.

### Odour management plan

Where there is a risk of offensive odour at sensitive receptors, or where odour events at sensitive receptors have been substantiated, implement and regularly review an odour management plan.  The plan should incorporate all the elements described in SEPA’s odour guidance.

## Measures for noise

Consider a combination of techniques appropriate to the site and activity to prevent noise.

Design the layout of the facility to locate potential sources of noise (including building exits and entrances) away from sensitive receptors and boundaries. Locate buildings, walls, and embankments so they act as noise screens.

Use measures to control noise, for example, including:

* adequately maintaining plant or equipment parts that may become noisier as they deteriorate – such as bearings, air handling plant, building fabric, and specific noise attenuation kit associated with plant or machinery
* closing doors and windows of enclosed areas and buildings
* avoiding noisy activities at night or early in the morning
* minimising drop heights and the movement of waste and containers
* using broadband (white noise) reversing alarms and enforcing the on-site speed limit
* using low-noise equipment, for example, drive motors, fans, compressors and pumps
* where possible, provide additional noise and vibration control equipment for specific sources – such as noise reducers or attenuators, insulation, or sound-proof enclosures

### Noise management plan

Where there is a risk of harm from noise at sensitive receptors, or noise events at sensitive receptors have been substantiated, implement and regularly review a noise management plan.

* the plan version number and date
* an introduction to the site and description of site operations
* local sensitive receptors
* other local contributors of noise
* contact with the local community and response to complaints

Include a noise reduction programme designed to:

* identify the sources of noise
* measure or estimate noise exposure
* characterise the contributions of the sources
* implement prevention and reduction measures

The noise management plan should be informed by a noise impact assessment carried out following the methodology of BS 4142:2014+A1:2019 ‘Methods for rating and assessing industrial and commercial sound’.

## Measures for dust, mud and litter

Consider adopting a combination of the following techniques appropriate to the site and activity to prevent dust, mud and litter.

### Site layout, housekeeping and operations

* Design the site layout to prevent emissions and limit the emissions sensitive receptors are exposed to – for example homes, schools or hospitals
* Use good housekeeping practices so the site is clear of dust, mud, litter and other debris
* Use road sweepers to remove dust, mud, litter and other debris
* Erect litter fences or micro-netting around the site
* Avoid activities that could spread dust and particulates, mud or litter during high winds – for example, loading and unloading waste from vehicles outside buildings or treating waste materials outside buildings
* Keep shredder speeds as low as practicable to minimise the production of fines and particulates
* Install hoods on shredder outlet points to reduce particulate release
* Minimise drop heights from shredder outlet points and any conveyors
* Make sure abatement systems are designed to treat and minimise releases – these systems must be monitored and maintained following the designer’s or manufacturer’s recommendations

### Enclosure in buildings

* Carry out operations inside buildings using negative pressure dust extraction systems whenever possible
* Install PVC strip curtains to reduce emissions through doorways
* Install automatic, fast-closing doors and designing doorways and openings in a way that prevents through-drafts
* Enclose conveyors and minimising drops, or using pneumatic or screw conveying systems
* Install filters to vents on silos, building extractors and conveying systems

### Vehicle movement

* Use enclosed vehicles, skips or containers wherever possible, or covering them if this is not possible (unless they’re empty)
* Enforce speed limits and reducing vehicle movements and idling on site
* Surface or pave roadways to make them easy to clean
* Ensure vehicles keep to paved roads
* Regularly clean and dampen roadways
* Use wheel wash systems to slow trucks – wash wheels and keep roadways damp
* Ensure road-going vehicles do not enter unmade ground and muddy areas (including the tipping piles) to reduce muddy track-out.

### Dust suppression and monitoring

* Use dust suppression systems (such as mist sprays, bowsers, water cannons, chemical suppressants, heavy water and foam suppressants) at appropriate locations and times
* Install dust and particulate monitors with trigger alarms

Locate measures such as mist sprays as close as possible to point source emissions of dust, for example at conveyors, trommels, shredders, and at building entrances – except where this would increase odour from biodegradable waste.

### Stockpiled wastes and open ground

* Keep stockpile levels at least 0.5m below the top of structures holding the waste to minimise wind-whipping at all times.
* Control the moisture content of the material in the stockpile to prevent materials becoming friable
* Plant grass or trees on open ground to reduce dust (hydro-seeding can rapidly establish vegetation on waste tips, slag heaps or other apparently infertile ground)

If stockpiling waste outdoors is unavoidable, take steps to prevent material escaping from them. For example:

* Use sprays and binders
* Position bay walls or windbreaks
* Ensure stockpiles do not face the direction of the prevailing wind
* Minimise waste storage heights and volumes
* Cover

### Dust management plan

Where there is a risk of environmental harm from dust, or where dust events have been substantiated, implement and regularly review use a dust management plan including;

* the plan version number and date
* an introduction to the site and description of site operations
* local sensitive receptors
* other local contributors of dust and emissions
* emissions sources on site
* site abatement systems, including the nomination of responsibility
* contact with the local community and respond to complaints

Provide details of the location and specifications of site PM10 monitoring, including:

* the location of the monitor
* how to manage the data
* how the equipment is serviced and calibrated
* the trigger action levels (if applicable)

### Litter

Litter can create a negative visual impact and cause a nuisance to site neighbours. Litter can be generated from poor site operational practice and the escape of waste during transit.

Enclosed areas will be required for activities with the potential for litter generation. Identify the location of sensitive areas adjacent to the site during the design stage.

Locate measures such as litter fencing and micro-netting as close as possible to areas where light-weight, loose waste is loaded and unloaded, if this activity is done outdoors. Do not rely solely on fences and screens at the perimeter to stop litter escaping.

Site design will allow for potential exposure from wind. Avoid site construction in a particularly exposed location.

* Include monitoring of litter generation in operational procedures.
* Where possible, carry out waste handling activities (including tipping, shredding, compacting) within a building or enclosed area.
* Maintain site roads.
* Accept of waste in sealed or covered vehicles only
* Provide perimeter planting, fencing and landscaping to reduce wind impacts

### Mud

Mud falling from vehicles using the site can cause a nuisance to road users.

* Design the site to reduce the risk of mud generation on access roads. Construct and maintain site roads to avoid mud generation and deposit on public roads.
* Ensure that vehicles entering or leaving the site are clean. Where the potential exists to generate mud on on-site roads provide a wheel wash at the site entrance/exit.
* Keep inert waste and non-hazardous waste tipping areas clear of loose waste that might be picked up by vehicle tyres.
* Regular inspection of site roads and public highways.

If measures such as using hoses and road sweepers do not prevent mud escaping onto the public highway, take further measures and consider installing a high-pressure wheel wash.

## Vermin and pests

Manage waste in a way that prevents vermin and pests. Flies, rats and birds they can affect operations, be a nuisance to neighbours and pose an environmental and health hazard as a potential vector for pathogens.

Vermin and insects may be present in or be attracted to the waste. This can have an adverse effect on the local environment and lead to complaints from site neighbours.

* Include regular site inspection to check for vermin and insects. Keep records of all inspections and monitor actions.
* Remove and dispose of all litter accumulating on or around the site on a regular basis.
* Ensure that waste is covered and avoid storage for longer than necessary.
* Ensure all biodegradable wastes are removed as soon as possible, and within 48 hours of arrival or within 72 hours at public holiday weekends.
* Treat high risk areas with insecticide.
* Use pest-control specialists to control vermin levels if they become a problem.

### Pest Management Plan

Where there is a risk of harm from pests at sensitive receptors, or where pest related events have been substantiated, implement and regularly review a pest management plan including.

* inspecting for and controlling pests
* rejecting loads of infested waste
* treating pest infestations promptly, and removing waste if necessary
* storing, handling and using approved pest control products

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