Non-hazardous and inert waste: appropriate measures for permitted facilities

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2. General management appropriate measures

These are appropriate measures for the environmental management of a regulated facility permitted to store, treat or transfer (or both) non-hazardous and inert waste.

2.1 Management system

1. You must have an up-to-date written management system (https://www.gov.uk/guidance/develop-a-management-system-environmental-permits), and activities at your facility must follow it. Your management system must incorporate the following features.

You have:

- management commitment, including from senior managers
- an environmental policy that is approved by senior managers and includes the continuous improvement of the facility's environmental performance, so you can identify pollution risks and minimise them through appropriate measures

You plan and establish the resources, procedures, objectives and targets needed for environmental performance alongside your financial planning and investment.

You implement your environmental performance procedures, paying particular attention to:

- staff structure and relevant responsibilities
- staff recruitment, training, awareness and competence
- communication (for example of performance measures and targets)
- employee involvement
- documentation
- effective process control
- maintenance programmes
- management of change
- emergency preparedness and response
- making sure you comply with environmental legislation

You check environmental performance and take corrective action, paying particular attention to:

- monitoring and measurement
- learning from incidents, near misses and mistakes, including those of other organisations
- records maintenance
- independent (where practicable) internal or external auditing of the management system to confirm it has been properly implemented and maintained

Senior managers must review the management system to check it is still suitable, adequate and effective at least annually. Improvements should be carried out within a reasonable time, based on the level of environmental risk.

You review the development of cleaner technologies and their applicability to site operations. We would expect cleaner technologies to be considered:

- as a result of substantiated pollution incidents
- when reviewing management systems
- when planning investment decisions, for example new items of plant

When designing new plant, you must assess the environmental impacts from the plant's operating life and eventual decommissioning. You must make sure that new plant is authorised by your environmental permit.

You must have a written procedure for proposing, considering and approving changes to procedures or infrastructure related to storing or treating waste or pollution control. This is so you can track and control the process of change.

You consider the risks that a changing climate (https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#a-changing-climate) poses to your operations. You have appropriate plans in place to assess and manage future risks.

You compare your facility's performance against relevant sector guidance and standards on a regular basis, known as 'sectoral benchmarking'.

You have and maintain the following documentation as part of your management system:

- inventory of emissions to air and water
- residues management plan
- accident management plan
- site infrastructure plan (https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#prepare-your-site-infrastructure-plan)

- site condition report (https://www.gov.uk/government/publications/environmental-permitting-h5-site-condition-report) for new facilities or where you are increasing the facility's area
- odour management plan, if required
- noise and vibration management plan, if required
- dust, mud and litter management plans, if required
- pest management plan, if required
- fire prevention plan (https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits), unless your facility does not handle combustible waste
- climate change risk assessment and adaptation plan (https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#a-changing-climate)

Your management system must include a schedule of inspection and maintenance for all pollution control infrastructure, including for example the:

- impermeable surfacing and drainage system
- ducts of abatement systems

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

Your management system must clearly set out the actual physical capacity of your facility to store and handle waste, which may be less than the quantity limits allowed by your permit. You must specify limits for the maximum:

- waste storage capacity at any one time
- daily and annual throughputs
- residence time for waste

When doing this, you must take into account the characteristics of your facility and the waste types and the pollution risks, for example fire and odour.

Your limits must also reflect the constraints of the available space and waste handling processes. You

must include factors like seasonal changes in supplies of inputs, and markets for outputs. More information on understanding capacity is available in our RGN 2 guidance (https://www.gov.uk/government/publications/rgn-2-understanding-the-meaning-of-regulated-facility).

2.2 Staff competence

1. Your facility must be operated at all times by an adequate number of staff with appropriate training, qualifications and competence (https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#managing-staff-competence-and-training-records). You must keep records of training, qualifications and relevant experience.

2. If you operate a 24-hour process, you must have:

- remote or telemetric systems to make sure an alarm would be raised in the event of an incident during unmanned hours
- appropriate personnel on call to deal with these incidents

You must explain these procedures in your management system.

3. The design, installation and maintenance of infrastructure, plant and equipment must be carried out by competent people, including Construction Quality Assurance where appropriate.

4. You must have appropriately qualified managers for your waste activity who are members of a government approved technical competence scheme (https://www.gov.uk/guidance/legal-operator-and-competence-requirements-environmental-permits#what-a-competent-operator-is) and who attend the facility as set out in our attendance guidance (https://www.gov.uk/guidance/legal-operator-and-competence-requirements-environmental-permits#how-much-time-your-technically-competent-manager-must-be-on-site).

5. Staff carrying out waste acceptance checks, including sampling and analysis of waste, must be appropriately trained and competent to:

- classify and characterise waste properly
- identify whether it is suitable for your facility
- manage any loads that do not conform to waste acceptance criteria
- determine end of waste products

2.3 Accident management plan

1. As part of your written management system you must have a plan for dealing with any incidents or accidents (https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#accident-prevention-and-management-plan) that could result in pollution, including near misses.

2. The accident management plan must identify and assess the risks the facility poses to human health and the environment. Particular areas to consider may include:

- waste types
- transferring substances, for example filling (including overfilling) or emptying of vessels and containers
- preventing incompatible substances coming into contact with each other
- failure of plant and equipment, for example storage tanks and pipework, or blocked drains
- failure of containment, for example bund failure or drainage sumps overfilling
- making the wrong connections in drains or other systems
- failure to contain firefighting water
- failure of abatement systems
- hazardous atmospheres in confined spaces
- failure of main services, for example power, steam or cooling water
- checking the composition of effluents before their emission
- vandalism and arson
- operator error
- accessibility of control equipment in emergency situations
- extreme weather conditions, for example flooding or very high winds

3. You must assess the risk of accidents and their possible consequences. You can use our risk assessment (https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit) guidance to help you to do this. Risk is the combination of the likelihood that a hazard will occur and the severity of the impact resulting from that hazard. Having identified the hazards, you can assess the risks by addressing six questions:

- how likely is it that the accident will happen?
- what may be emitted and how much?
- where will the emission go – what are the pathways and receptors?
- what are the consequences?
- what is the overall significance of the risk?
- what can you do to prevent or reduce the risk?

4. The depth and type of accident risk assessment you carry out will depend on the characteristics of your facility and its location. The main factors to take into account are the:

- scale and nature of the accident hazard presented by the facility and its activities
- risks to areas of population and the environment (the receptors)

5. Through your accident management plan, you must also identify the roles and responsibilities of the staff involved in managing accidents. You must provide them with clear guidance on how to manage each accident scenario, for example as a result of a spillage of a potentially polluting liquid.

6. You must have a suitably trained facility employee available at all times who will act as an emergency coordinator and will take lead responsibility for implementing the accident management plan.

7. You must train your employees so they can perform their duties effectively and safely and know how to respond to an emergency.

8. You must also:

- show how you will communicate with relevant authorities, emergency services and neighbours (as appropriate) before, during and after an accident
- implement emergency procedures, including for safe plant shutdown and site evacuation
- implement post-accident procedures that include carrying out an assessment of the harm an accident may have caused and the remediation actions you will take
- consider the impact of accidents on the function and integrity of plant and equipment
- have contingency plans to relocate or remove waste from the facility, and suspend incoming waste
- test the accident management plan by carrying out emergency drills and exercises

9. After a flooding event you must inspect and assess the integrity of affected plant and equipment, in particular infrastructure that may have been in contact with floodwater or groundwater. Tank inspections should include non-destructive testing methods to verify their integrity.

10. You must take the following measures, where appropriate, to prevent events that may lead to an accident. You must have appropriate procedures set out in your accident management plan.

Preventing accidental emissions

11. You must make sure that you contain the following (where appropriate) and route to the effluent system (where necessary and lawful):

- process waters
- site drainage waters
- emergency firefighting water
- chemically contaminated waters
- spillages

12. You must have planned for how you will manage the impacts of tidal surges and storm water flows. You must consider abnormal operating scenarios and incidents, for example, by providing

buffer storage capacity. You should take into account the:

- nature of the pollutants
- potential pathways
- effects of downstream waste water treatment
- sensitivity of the receiving environment

13. If buffer storage capacity is required, you can only discharge from it after you have assessed the water for contamination, in order to identify an appropriate disposal route.

14. You must implement spill contingency procedures to minimise the risk of an accidental spill entering watercourses or sewers or contaminating land.

15. You must take account of additional firefighting water flows or firefighting foams, as set out in our fire prevention guidance (https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits). You may need infrastructure like emergency storage lagoons to prevent contaminated firefighting water from reaching a receiving water body.

16. You must consider and, if appropriate, plan for the possibility that you may need to contain or abate accidental emissions from:

- overflows
- tank failures
- tank wall penetrations
- site plant or machinery leaks

Security measures

You must have security measures (including staff) to prevent unauthorised access to your facility, so preventing:

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

17. Depending on your risk assessment, facilities must use an appropriate combination of:

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

Fire prevention

18. If your permit allows you to store or treat combustible waste, you must have a fire prevention plan that meets the requirements of our guidance (https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits).

Other accident prevention measures

19. You must maintain plant control in an emergency using one or a combination of:

- alarms
- trips and interlocks
- automatic control systems
- tank level readings such as ultrasonic gauges, high level warnings, process interlocks and process parameters

20. You must:

- make sure that all the measurement and control devices you would need in an emergency are easy to access and operate in an emergency situation
- maintain plant in a good state through a preventive maintenance programme and a control and testing programme
- use techniques such as suitable barriers to prevent moving vehicles damaging equipment
- implement procedures to avoid incidents due to poor communication between operating staff – during shift changes and following maintenance or other engineering work

Record keeping and procedures

21. You must:

- keep an up to date record of all accidents, incidents, near misses, changes to procedures, abnormal events, and the findings of maintenance inspections
- carry out investigations into accidents, incidents, near misses and abnormal events and record the steps taken to prevent their reoccurrence
- maintain an inventory of substances which are present (or likely to be) and which could have environmental consequences if they escape

22. You must notify the Environment Agency without delay if you detect any of the following events and they are causing, or may cause, significant pollution:

- a malfunction
- a breakdown or failure
- an accident
- emission of a substance not controlled by an emissions limit
- breach of an emissions limit

2.4 Contingency plan and procedures

1. You must implement a contingency plan (https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#contingency-plans) so that you:

- comply with all of your permit conditions and operating procedures during maintenance or shutdown at your facility, including disruption at other facilities that would affect supplies to your facility or the removal of waste from it
- do not exceed limits in your permit and continue to apply appropriate measures for storing and handling waste
- stop accepting waste unless you have a clearly defined method of recovery or disposal and enough permitted capacity

2. You must have contingency procedures to make sure that, as far as possible, you know in advance about any planned shutdowns at waste management facilities to which you send waste.

3. You must make your contracted or regular customers are aware of your contingency plan and of the circumstances in which you would stop accepting waste from them.

4. You must consider whether the sites or companies you rely on in your contingency plan:

- can take waste at short notice
- are authorised to do so in the quantities and types likely to be needed, in addition to carrying out their existing activities

5. If you could exceed your permitted limits, or compromise you storage or handling procedures, you must not discount alternative disposal or recovery options on the basis of extra cost or geographical distance.

6. You must not include unauthorised capacity in your contingency plan. If your contingency plan includes using temporary storage for additional waste at your facility, then you must make sure that your facility is authorised for this storage and you have the appropriate infrastructure in place.

Contingency measures for treatment only

7. Your management procedures and contingency plan must:

- identify your technology's known or predictable malfunctions and the procedures, spare parts, tools and expertise needed to deal with them – so you can minimise predictable malfunctions and fix them quickly
- include a record of spare parts held, especially critical spares, or state where you can get them from and how long it would take
- have a defined procedure to identify, review and prioritise items of plant which need a preventative regime

- include all equipment or plant whose failure could directly or indirectly affect the environment or human health – if the equipment or plant is process critical then you may need to stop accepting waste or shut down your process
- make sure you have the spare parts, tools, and competent staff needed before you start maintenance

8. If you produce an end-of-waste material (https://www.gov.uk/guidance/turn-your-waste-into-a-new-non-waste-product-or-material), your contingency planning must consider storage capacity for end-of-waste products and materials that fail the end-of-waste specification.

9. Your management system must include procedures for auditing your performance against all of these contingency measures and for reporting the audit results to the site manager.

2.5 Facility decommissioning

1. You must consider the decommissioning of the facility at the design stage and make suitable plans to minimise risks during decommissioning.

2. For existing facilities where potential risks are identified, you must implement a programme of design improvements. These design improvements must make sure that you:

- avoid using subsurface tanks and pipework
- drain and clean out vessels and pipework before dismantling
- use insulation which you can remove easily without dust or hazard
- use recyclable materials, taking into account operational or other environmental objectives

3. You must maintain a decommissioning plan to demonstrate that:

- plant can be decommissioned without causing pollution
- the site will be returned to a satisfactory condition

4. You should identify non-productive or redundant items such as tanks, pipework, retaining walls, bunds, reusable waste containers, ducts, filters and security systems and implement a programme of decommissioning and removal.

5. You should follow our guidance on how land and groundwater should be protected at permitted facilities (https://www.gov.uk/government/publications/rgn-9-surrender). You should plan for producing a site condition report, if needed to surrender your permit.