How to Comply with your Environmental Permit (EPR 1.00)

We are the Environment Agency. It's our job to look after your environment and make it a better place – for you, and for future generations.

Your environment is the air you breathe, the water you drink and the ground you walk on. Working with business, Government and society as a whole, we are making your environment cleaner and healthier.

The Environment Agency. Out there, making your environment a better place.

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Record of changes

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Version	Date	Change
1.0	April 2010	Issued for launch of EPR 2010
2.0	June 2010	Corrections to tables of site attendance for technically competent managers on pages 50 & 64. Correction to odour management plan requirements for mobile plant standard facilities on page 101.
3.0	November 2010	Guidance on how to comply with the 'permitted activities' and 'emissions of substances not controlled by emission limits' conditions has been clarified for water discharge activities. Guidance on how to comply with the 'change in operation' condition has been clarified for water discharge and groundwater activities. References to guidance on bioaerosols at composting facilities added to Part 3.

Contents

Introduction

Introduction

This guidance is about preventing pollution. It contains both technical guidance and guidance on complying with your permit. It describes the standards and measures we expect you to take in order to control the most frequently encountered risks of pollution to air, land and water from the activities we regulate through environmental permitting. The guidance applies to all activities with the exception of **intensive farming** and **radioactive substances activities**.

You must use it to help you with your permit application and to help you comply with the conditions of your environmental permit.

This guidance is split into three parts.

Part 1 provides technical guidance that applies to **all** activities covered by this guidance.

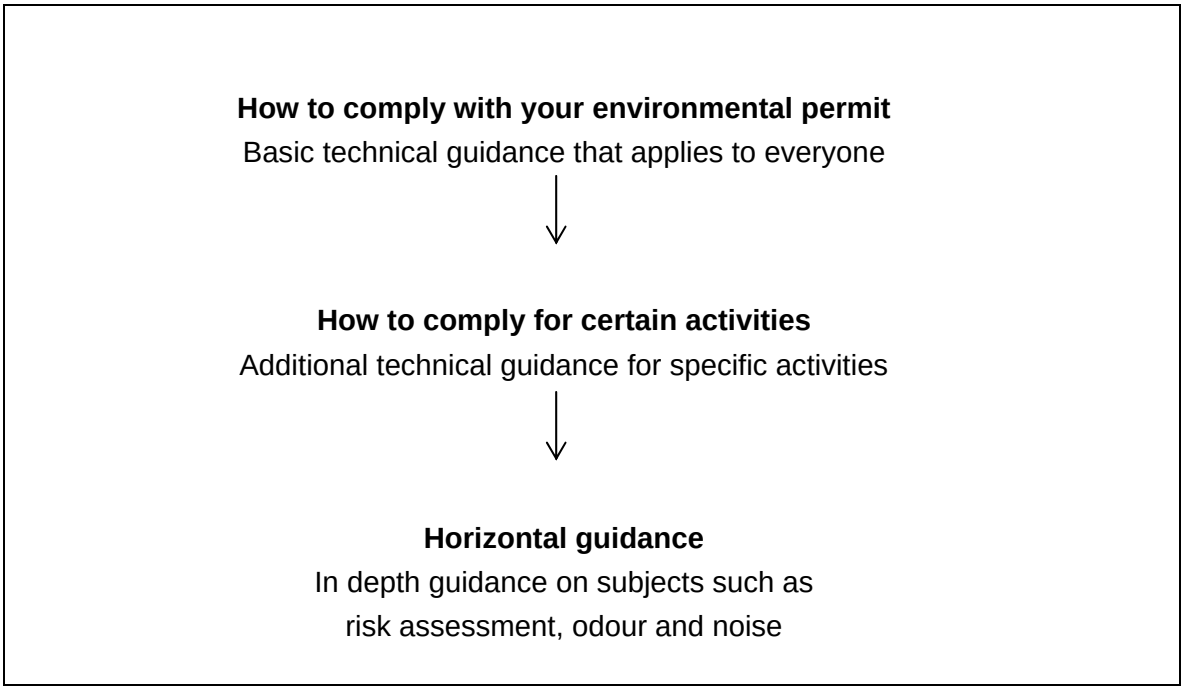
Part 2 contains guidance that is **specific** to the different kinds of activities we regulate.

Part 3 provides **additional** guidance which may be relevant to your activities. We have also included information on activities for which odour is a key issue.

How our guidance fits together

This guidance covers most of the standards and measures that apply to standard rules that are available for many activities, as well as the basic standards and measures that apply to all other activities subject to the Environmental Permitting Regulations (EPR). The guidance has been drafted to recognise the range of activities we regulate through environmental permitting, both in terms of size and environmental risk. For some activities there are additional, sector-specific technical guidance notes (TGNs). A list of these is given in Part 3.

The suite of guidance fits together like this:



You should use the guidance in the following ways:

- if you are applying for a bespoke permit, the application form asks you to explain how you will comply with the standards in this and the sector technical guidance. This guidance covers the basic standards. The key measures in this guidance that you should specifically address in your application are underlined in Parts 1 and 2

- if you are applying for a standard permit you are confirming that you are complying with these standards and measures

- modern permits and standard rules describe what we want you to achieve but they do not normally tell you how to do this. They are generally intended to give you a degree of flexibility. Each section in Parts 1 and 2 of this guidance also gives the typical permit condition you must comply with and then provides guidance on how to comply. References to figures and tables in the permit conditions refer to the figures and tables you will find in your permit

- your permit / rules are structured as follows:

  1 Management
  2 Operations
  3 Emissions and monitoring
  4 Information
  5 Schedules (which set out limits and other detailed issues).

Please note

While we have taken care to avoid any conflict between our guidance documents, should there be any doubt, the TGN that applies to your sector takes precedence over this document. Sometimes, particularly difficult problems arise on

issues such as odour or noise. It may then be necessary to consult the “horizontal” guidance that gives in depth information for particular topics. Part 3 lists these also.

Where a condition requires you to take appropriate measures to secure a particular objective, we will expect you to use, at least, the measures described in the guidance which are appropriate for meeting the objective. You may have described the measures you propose in your application or in a relevant management plan but further measures will be necessary if the objectives are not met.

The measures set out in this guidance and in the TGNs may not all be appropriate for a particular circumstance, and you may want to implement equivalent measures that achieve the same objective. In those cases where the measures are mandatory, this is stated.

Part 1 – General guidance that applies to all activities

1 Managing your activities

1. Managing your activities

General management

Typical permit condition or rule
(Typically, condition 1.1.1 on the permit)

The operator shall manage and operate the activities:

(a)in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances [, closure][1] and those drawn to the attention of the operator as a result of complaints; and

(b)using sufficient competent persons and resources.

Typical permit condition or rule
(Typically, condition 1.1.2 on the permit)

Records demonstrating compliance with condition 1.1.1 shall be maintained

[1] This does not apply to mobile plant, stand-alone water discharge activities or stand-alone groundwater activities.

Typical permit condition or rule

(Typically, condition 1.1.3 on the permit)

Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

How to comply

This condition means that you must put in place and implement management arrangements to ensure that you identify the risks that your activities pose to the environment and take all reasonable actions to prevent or minimise those risks.

Environmental permitting incorporates a range of activities both in terms of scale and risk and, depending on your activity, you will need to take appropriate management actions.

In particular and as appropriate to your activity:

- you must have the means available to provide the required standards of environmental protection
- you must ensure that equipment is designed and installed to a suitable standard
- you must operate and maintain all equipment whose failure may lead to pollution so that it continues to operate effectively
- you must have identified potential accidents, put in place any necessary measures to minimise the chances of them happening and have plans in place to minimise the effects if the worst occurs
- you must ensure that where you need staff, you have enough of them, they are adequately trained in those aspects which could lead to pollution, they know how to deal with accidents and understand your responsibilities under your permit
- have all necessary written operating instructions to ensure that you and your staff know how to operate any equipment or plant under normal and abnormal situations. To demonstrate that you are doing this, and to ensure that it is auditable, you must keep written records.

In particular you must have:

- a maintenance checklist and maintenance records
- an accident management plan.
- a list of the skills and training your staff need and a training record covering each staff member[2]
- any necessary operating instructions
- reference, where appropriate to "relevant good practice" (RGP), which includes statutory approved codes of practice, such as the Groundwater Protection Codes, external standards (BS and so on) through to internal codes/standards. You should be able to justify where you do not use RGP
- a way of recording any complaints, pollution incidents or breaches of your permit and the actions you have taken to deal with them.

All of the above are the basics of what we mean by your "management system". More details on them are given in the paragraphs below. For larger or more complex activities we would expect more, for example environmental policy statements and commitments to continuous improvement. For smaller and simpler activities, a more basic system may be sufficient. For example if your activity is covered by a code of practice such as the Groundwater Protection Code for Sheep Dipping, we would expect your

[2] For mining waste operations, this only applies to certain mining waste facilities (See Part 2(3))

management system to include following the Code's provisions. **Example environmental management system templates for smaller operations can be found in horizontal guidance H6 - Environmental Management Systems (See Part 3)**. In practice though, the extent of your management system depends not just on the scale and complexity of the activity but of the undertaking as a whole and the hazards/risks that pose a threat to the environment and compliance with your permit.

If you have fluorinated gases on site, your management system needs to include the requirements of The Fluorinated Greenhouse Gases Regulations. You should note that these Regulations were not implemented via EPR.

If you hold a nuclear site licence, you should follow and apply the radioactive substances regulation (RSR) nuclear guidance on management arrangements to all the activities you undertake. You will also need to apply any specific additional requirements in relation to non-RSR activities that are described in this document. This is to ensure that you adopt a management system which fully addresses the range of activities you operate under EPR, in a way which is consistent with our and other regulatory requirements.

To keep your management system up to date you should review its content and associated accident management plans and so on at least once every 4 years, but more regular reviews of your performance against your management system are advised, particularly for more complex activities. You should also review it if there is a significant change such as a company take-over, major re-structure or expansion of the activities. You should review the relevant parts following an accident or if you find a non compliance, in an audit for example, in order to find the root cause. Following an accident or a non-compliance we will also look at your management system to identify any failings and we may make recommendations for improvements that we will expect you to implement.

For smaller and simpler activities:

A basic management system may be sufficient, rather than an independently certified EMS. Where relevant, reference to statutory codes of practice may be appropriate (see Groundwater Activities in Part 2). www.envirowise.gov.uk is also a useful source of help.

For larger and more complex activities:

- you will normally have a formal environmental management system (EMS)
- we strongly support certification to the ISO 14001 standard, registration under EMAS (EC Eco Management and Audit Scheme) (OJ L114, 24/04/01) or implementation through BS 8555 Phase (1-5).

Remember though, that your permit requires you to achieve certain environmental outcomes that may extend beyond the scope of ISO 14001 or EMAS registration. Registration to ISO 14001 or EMAS, while valuable in themselves, do not guarantee permit compliance.

We have developed management tools that will further help you to ensure that you remain in compliance. These are described in H6 – Environmental Management Systems.

Operations

The reference to "operations" in 1.1.1(a) means that you must consider how to avoid or minimise the environmental risks and impact of the normal running of the activities. Normal running includes start ups, shut downs, and variations in materials or waste received and so on. You should have contingency plans that ensure a minimum impact on the environment in the case of breakdown, enforced shutdown and so on.

Maintenance

Poor maintenance is a common cause of environmental harm. Where the poor performance of plant or infrastructure (e.g. hard-standing, bunds, pipe work and so on) could increase emissions to the environment, you must:

- carry out a programme of Planned Preventative Maintenance (PPM), rather than waiting for equipment to fail; and
- follow the inspection and maintenance schedules that the manufacturer recommends, or write down your justification for following any other schedule.

Accidents

You must have an accident management plan and implement it if an accident occurs. You will have to review this plan at least every four years. As soon as practicable after an accident you will have to analyse the reasons why the accident happened and whether your response was adequate. You will have to change the plan if necessary.

To produce an accident management plan, you should:

- identify events or failures that could damage the environment, for example flooding; see 'A'
- assess how likely they are to happen and the potential environmental consequences; see 'B'
- take steps to minimise both the potential causes and consequences of accidents; see 'C'.

For the simpler activities, the easiest way to do this is to follow the risk assessment for accidents in Part 1 of H1 Environmental Risk Assessment (see Part 3) and describe how you will manage the risks. For the larger or more complex activities in Schedule 1 of the Environmental Permitting Regulations you would normally be expected to carry out a HAZOP study and for COMAH 1 activities you should follow the COMAH[3] guidance www.hse.gov.uk/pubns/ (see Part 3).

A. Identify events or failures that could damage the environment

Events or failures you need to think about include:

- transferring and handling substances (e.g. loading or unloading chemical storage vessels, poor pesticide equipment wash down provisions, de-sludging sewage treatment plants of septic tanks)
- overfilling vessels
- plant or equipment failure (e.g. over-pressure of vessels and pipe work, blocked drains, power or pump failures)
- containment failure (e.g. bund or overfilled drainage sumps, loss of landfill gas or leachate, cracks developing in a sheep dip bath and associated drainage containment)
- fires, explosions or failure to contain firewaters
- making the wrong connections into drains or other systems (e.g. vehicle/plant washing areas draining to a surface water sewer)
- incompatible substances coming into contact (e.g. bleach inhibiting the

[3] Control of Major Accident Hazards Regulations 1999 (COMAH)

biological action of a sewage treatment system)

- unwanted reactions and/or runaway reactions
- emission of an effluent before adequately checking its composition
- vandalism
- flooding.

This is not a comprehensive list. You also need to work out what other situations are relevant to you. In particular there may be others specific to the operation that should be considered.

B. Assess how likely they are to happen and the potential environmental consequences

This can be viewed as addressing four questions:

- probability: how often is this likely to occur? Several times a year? Once every few years?
- what gets out, how hazardous is it and how much?
- where would it go – i.e. what or whom would be affected? The public? for example groundwater or surface water used for drinking water, or an ecologically important site? And how would it get there? By air, along a ditch, infiltrating through the ground and so on
- what would the consequences be for people and the environment?

The level of assessment will depend on the severity of the consequences and the complexity of the situation. In general it is more important to identify what you need to do – and then do it – rather than performing in depth analyses of, for example, how far an oil spill may spread into the soil.

C. Action to minimise the potential causes and consequences of accidents:

You should take action to minimise the risks you have identified. As a minimum you should:

- maintain an inventory of substances that would harm the environment if they were to escape. Remember that many apparently innocuous substances or non-hazardous wastes can be environmentally damaging (e.g. a tanker of spilt milk could destroy a river's ecosystem). Also remember that under the Groundwater Directive, all substances are either classed as Hazardous Substances or Non-hazardous pollutants
- check raw materials and wastes for compatibility with other substances with which they may come into contact
- store raw materials, products and wastes properly
- have barriers to prevent vehicles from damaging equipment or storage vessels
- have appropriate primary and secondary containment e.g. bunds and building containment
- prevent overfilling of tanks and drainage sumps by level measurement, separate high-level alarms or cut-off, and batch metering
- regularly check the performance of a sewage or other treatment system
- install security systems to minimise the risk of unauthorised access.

If appropriate for your activities, produce a site plan that shows features such as:

- the layout of the site, including buildings, process, storage and treatment areas, access routes and meeting points for the emergency services
  - a schematic representation of the site drainage arrangements
  - the location of hydrants, "fireboxes" and pollution prevention equipment and materials

- any watercourse, spring, borehole or well located within or near to the site
- areas of porous or unmade ground; and
- a site drainage map showing foul, surface and trade effluent drainage systems, including features such as:
  - inspection points to detect pollution
  - oil separators/interceptors;
  - firewater/spillage containment systems
  - balancing tanks
  - pollution control devices (shut-off valves/penstocks fitted in drains); and
  - other areas suitable for portable storage tanks, for blocking drains and the temporary storage of firewater.

This plan should be readily available to all relevant staff, the emergency services and our officers in the event of an incident.

- keep a log of all incidents and near-misses
- maintain clear instructions on how each accident scenario should be managed. Should a given spill be contained or dispersed, for example? Should you put a fire out or let it burn? Who is responsible for isolating drains, or alerting emergency services?

Where you anticipate that the emergency services and other responders such as the Health Protection Agency will be involved in the response to an incident on your site, you should develop the plan in consultation with them, for example the use of a Controlled Burn and the management of fire water. The information within your plan can then be incorporated into the Emergency Services own plan for the site.

- have appropriate equipment to limit the consequences of an accident, such as oil and chemical absorbents, drain sealing mats, land booms, or fit devices such as penstocks or drain blockers in the drainage system
- check the composition of the contents of a bund or other container before disposal
- to prevent fires and minimise their impact you should:
  - store incompatible materials apart
  - limit the size of stockpiles of combustible materials and surround them with firebreaks
  - use firebreaks wide enough (at least four metres) for emergency vehicles to get through
  - use wider firebreaks to protect sensitive areas such as occupied buildings, watercourses and public infrastructure such as power lines, transformers, roads and railways
  - not store materials against the site boundary
  - consider sprinklers or other fire suppression systems
  - have adequate supplies of fire water/fire fighting media (e.g. foam)
  - ensure you can contain contaminated firewater on-site if fire and contaminated firewater is the principal risk from your activities
  - you should speak to your local fire and rescue service to agree fire prevention and fire water management and containment measures that are appropriate for your site
- for groundwater activities, follow the guidance in any statutory approved Groundwater Protection Code of Practice (e.g. permanently seal any drainage holes in a sheep dip bath, and fill the bath prior to dipping with clean water overnight in order to check for leaks).

D. If an accident happens

If an accident causes damage to the environment, or risks doing so, we expect you to:

- immediately do what it says in your accident management plan
- tell us
- do whatever else is necessary to minimise the environmental consequences
- find out why the accident happened and take action to stop it happening again
- clean up after the incident/spillage
- review the plan.

Please see Reporting/Notification on page 25.

Further information to help you produce your accident management plan is available in our PPG21. These guidelines set out best practice for producing an incident response plan to deal with an environmental incident on your site. Please also note the “Accidents” section in Part 3 and the link in that section to the quick guide to the Environmental Damage (Prevention and Remediation) Regulations 2009, which sets out your responsibilities under the Regulations.

Incidents and non-conformances

Even when “incidents and non-conformances” occur, you are responsible for the environmental performance of your activities and for achieving compliance with the permit.

Incidents that require investigation include malfunction, breakdown or failure of plant, equipment or techniques and any near misses, releases to the environment, or impacts on amenity. You and your staff should be able to cope with abnormal operation and return your activities to normal operation.

You must be able to:

- detect abnormal operation and investigate the causes
- assess the information and decide what to do
- in the short-term, get back to normal operation
- in the long-term take steps to make sure the problem doesn’t happen again.

Site security

You should have site security measures in place if these are necessary to prevent unauthorised access to the site.

However, it is important to be clear about whether and why security is important at a given site. It may, for example, be to prevent vandalism which could result in polluting liquids being released from tanks or drums, particularly if your activities are located within vulnerable groundwater source protection zones or are close to rivers, or it may be to prevent unauthorised deposit of waste at a waste site.

What is appropriate will depend upon the risks posed by the activity itself and the particular location. In a high risk area, for example an urban area where there are pollution risks outside the buildings such as drums or tanks of potentially polluting liquids, appropriate measures might include:

- security checks or supervision of people entering the site during normal working hours
- gates that are closed and locked outside normal operating hours to prevent people walking or driving onto the site
- two metre security palisade fences around the site perimeter
- signs warning people not to enter the site.

In very high risk situations consider out of hours security staff and security cameras. You may justify alternative methods to suit your particular circumstance.

Where an EPR permit is issued for an activity on a nuclear licensed site, security arrangements under other legislation take precedence.

Sufficient competent persons and resources

You must have enough competent staff to manage and operate your activities and the means available to ensure they do not cause pollution.

You should also ensure that any contractors you employ have the knowledge, skills and resources they need.

Records that demonstrate your management system

You must keep reliable records. These are an essential part of your management system.

Section 4 of the permit tells you how to keep the records. There may be additional guidance on the manner in which records are held in sector-specific guidance.

Access to your permit

Staff or contractors whose work may have an impact on the environment must be easily able to see a copy of the permit or standard rules, displayed near or readily available electronically where they work. They should have ready access to the information they need to ensure that they act in a way to comply with the permit. This could be access to this document or other instructions more targeted to their responsibilities, for example the mobile plant deployment form.

Operations

2. Operations

Permitting activities

Typical permit condition or rule

(Typically, condition 2.1 on the permit)

The operator is only authorised to carry out the activities specified in Schedule 1 table S1.1 (the “activities”).

Typical permit condition or rule

(Typically, condition 2.3.1 on the permit)

- the activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in Schedule 1 table S1.2 unless otherwise agreed in writing by the Environment Agency
- if notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in Schedule 1, table S1.2 or otherwise required under this permit and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

How to comply

EPR lists many different activities but you are only permitted to carry out those activities listed in your permit. However, you may carry out other activities on the site provided that:

- they do not need a permit under any legislation; or
- they are exempt from the requirement to have a permit; or
- you have a separate permit issued by the Environment Agency or by another regulator such as the local authority.

Table S1.2 of Schedule 1 of your permit will refer to selected documents that you supplied with your application for a permit – for example your management plans or procedures.

We expect you to operate in accordance with these. However, if a pollution problem arises we may require you to revise your plans and procedures.

For further guidance on specific activities, please refer to the relevant section in Part 2.

3 Emissions and monitoring

3. Emissions and monitoring

Point source emissions to air, water & land

Typical permit condition or rule

(Typically, condition 3.1.1 on the permit)

There shall be no point source emissions to air, water or land, except from the sources and emission points listed in Schedule x.

The limits given in Schedule x, tables y.y, and z.z. shall not be exceeded.

How to comply

This section applies if you have point source emissions. Many activities, for example many small waste activities, do not have point source emissions.

A point source emission is localised in origin (e.g. exhaust gas from a boiler stack, waste water from an effluent plant outlet pipe, the discharge of sewage effluent to surface water or ground/groundwater from a pipe or infiltration system or the discharge of process water from an extractive waste settlement pond).

Emissions to air and water

The sources and emission points will be listed in a table in your permit. You must meet those emission limits.

Please note that:

- any emissions not listed in the table are considered as emissions of substances not controlled by emission limits
- point sources listed in a table, (which will either be a whole emission point or a substance from a point) for which an emission limit is not set are treated as emissions of substances not controlled by emission limits. This category of emissions can sometimes be identified collectively (e.g. pressure relief valves from a process reactor).

Please see "emissions of substances not controlled by emission limits" below.

Point source emissions to air and water are common in activities subject to the requirements of the IPPC Directive. The technical measures that you should employ to prevent or minimise them are given in Part 2(1). Standard rules permits may also permit point source emissions.

If you operate a waste operation or a mining waste operation, you should refer to Part 2(1) if you have point source releases to air or water even though you are not subject to IPPC.

For activities subject to the requirements of the IPPC Directive, emission limit values will be based on the benchmark emission standards for your industry sector. A list of the technical guidance notes containing the benchmarks is given in Part 3.

Emissions to land

You must not make any emissions that could result in the direct or indirect input of contaminating substances to land unless specifically permitted to do so. The requirements under "Emissions to groundwater" as set out below, are equally applicable to any discharge to land of any hazardous substances or non-hazardous pollutants.

Emissions to groundwater

You must not make any emissions that could result in the direct or indirect input of polluting substances to land and/or groundwater unless they are specifically permitted and meet the requirements of Schedule 22 to the Environmental Permitting Regulations 2010. In these instances you must use appropriate measures, as defined within our H1 risk assessment guidance modules on risk to groundwater, to prevent the input into groundwater of hazardous substances (as defined in Schedule 22). Similarly, you must limit the input of non-hazardous pollutants to groundwater to ensure that such inputs do not cause pollution of groundwater.

Emissions of substances not controlled by emission limits

Please note that this condition/rule was formerly called "Fugitive emissions of substances." It may still be referred to as such in existing permits and other sector specific TGNs.

Typical permit condition or rule

(Typically, condition 3.2.1 on the permit)

Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in table y below and in any approved emissions management plan, have been taken to prevent or, where that is not practicable, to minimise, those emissions.

The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan
- implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

How to comply

These emissions are emissions to air, water or land from your activities from a localised or diffuse source which are not controlled by an emission or background limit. A localised source includes substances from a point source which do not have a specific limit. An example of such an emission from a water discharge activity would be copper in a sewage discharge. This substance would not be subject to an emission limit and would therefore be subject to this condition/rule. "Pollution" is defined at the back of your permit or standard rules. Emissions of this type include dust, volatile organic compounds (VOCs), bioaerosols, mud, litter and substances escaping to water and ground. Where the requirements for a site or for a sector are simple we may list them within the permit, for example as described in Table 3.2 below.

Table 3.2 – Appropriate measures for emissions not controlled by emission limits

Measures
For all wastes, apart from those specified in Schedule X Table Xyy ("specified" waste): • all bulking, transfer or treatment of waste shall be carried out inside a building • all waste shall be stored in a building or within a secure container • all waste shall be stored and treated on an impermeable surface with sealed drainage system. "Specified" waste shall be stored and treated on hard standing or on an impermeable surface with sealed drainage system.

If not specified in your permit, the measures you decide to use will depend on your industry sector/regime and your individual circumstances. We will expect you to consider the options on the basis of balancing costs and environmental benefits. The measures you decide to use are up to you, but they will have to meet the objective of the condition.

If there is potential for a significant release beyond your site boundary or in the case of standalone water discharge activities or groundwater activities, to the receiving surface water or groundwater, you should have a written emissions management plan, showing what measures you will use and how you will respond to prevent or minimise the emissions. The easiest way to do this is to follow the risk assessment for emissions not controlled by emission limits in Part 1 of H1 Environmental Risk Assessment (see Part 3) and describe how you will manage the risks. You may need to update this plan with further measures to ensure that the condition continues to be met.

If a serious issue cannot be controlled immediately it may be necessary to reduce or stop your activities until satisfactory controls are in place or the issue is resolved.

Emissions of substances not controlled by emission limits (continued)

Typical permit condition or rule

(Typically, condition 3.2.3 on the permit)

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 to prevent or, where that is not practicable, to minimise, leakage and spillage from the primary container.

Emissions of substances not controlled by emission limits to surface water, sewer and groundwater

For detailed design standards on bunds, and storage refer to the guidance in Part 3.

For **subsurface structures**, you should:

- establish and record the routing of all installation drains and subsurface pipework
- identify all sub-surface sumps and storage vessels
- engineer systems to minimise leakages from pipes and ensure swift detection if they do occur, particularly where hazardous substances or non-hazardous pollutants (as defined by the Groundwater Directive) are involved
- fit oil separators where appropriate to surface water drainage systems to protect them from contamination by oil
- provide secondary containment and/or leakage detection for sub-surface pipework, sumps and storage vessels.

If secondary containment is not practicable then appropriate measures to prevent or minimise leakage might include:

- regular inspections to a written procedure
- ensuring that any leakage is detected e.g. by monitoring boreholes or sampling adjacent watercourses.

All **sumps** (other than those within bunds – see below)

should be:

- impermeable and resistant to stored materials

- looked at regularly and any contents removed after checking for contamination
- where not frequently inspected, fitted with a high level probe and alarm
- regularly inspected for their condition (normally visual, but extending to hydraulic testing where structural integrity is in doubt).

All above-ground tanks containing liquids whose spillage could be harmful to the environment should be bunded.

Bunds should:

- be impermeable and resistant to the stored materials
- have no outlet (that is, no drains or taps) and drain to a blind collection point
- have pipework routed within bunded areas with no penetration of contained surfaces
- be designed to catch leaks from tanks or fittings
- have a capacity greater than 110 percent of the largest tank or 25 percent of the total tankage, whichever is the larger.[4]
- be looked at regularly and any contents removed after checking for contamination
- be fitted with a high-level probe and an alarm, where not frequently inspected
- have tanker connection points within the bund where possible (otherwise adequate containment should be provided at the connection point)
- be regularly inspected for their condition (normally visual, but extending to hydraulic testing where structural integrity is in doubt).

Storage areas for IBCs, drums, bags, and so on, should be designed and operated to minimise the risk of releases to the environment. In particular:

- where spillage of any stored substance could be harmful to the environment, the area should be appropriately kerbed or bunded
- appropriate storage facilities should be provided for substances with special requirements (e.g. flammable, sensitive to heat or light) and formal arrangements should be in hand to keep separate packages containing incompatible substances (both "pure" and waste). Plastic IBCs should not be used to store flammable materials
- storage areas should be located away from watercourses, unprotected drainage systems and sensitive boundaries, (e.g. those with public access) and should be protected against vandalism.
- undercover storage / weatherproof covering should be considered where pollution can be significantly reduced by so doing
- storage areas should have appropriate signs and notices and be clearly marked-out, and all containers and packages should be clearly labelled
- the maximum storage capacity of storage areas should be stated and not exceeded, and the maximum storage period for containers should be specified and adhered to
- containers should be stored with lids, caps and valves secured and in place - and this also applies to emptied containers
- all stocks of containers, drums and small packages should be regularly inspected (at least weekly)
- procedures should be in place to deal with damaged or leaking containers.

General, in the event that structures are designed to work without secondary containment (such as lagoons and concrete effluent treatment plants) we expect maintenance, regular inspections and so on, to a level that will provide equivalent protection.

[4] For the purposes of these calculations you should not use the design capacity of the tank or tanks, but instead use the maximum physical capacity of the tank or tanks – assuming it is/they are over-filled to the point of spillage.

Monitoring

Typical permit condition or rule

(Typically, condition 3.3.1 to 3.3.4 on the permit)

The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake monitoring specified in the following tables in Schedule x to this permit:

- point source emissions specified in tables Sxx, Sxx and Sxx
- surface water or groundwater specified in table Sxx
- noise specified in table Sxx
- ambient air monitoring specified in table Sxx
- process monitoring specified in table Sxx
- land specified in table Sxx.

The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

Monitoring may be required:

- if the permit allows ongoing releases to the environment
- if there is a particular risk of release to which we need to be alerted
- to check that the effect of the activities on the environment is as predicted.

As monitoring standards change and improve we will agree their introduction with you and you can also agree changes with us.

NB Not all permits require monitoring, for example, in 2008 we published 27 sets of standard rules and only five of them required any monitoring.

For point source emissions, tables in the permit will specify both the source of the emission and its location. The table below is an example for open air composting. Other monitoring points may be specified in the permit that are remote from point sources or are associated with diffuse sources, for example the monitoring of particulate matter.

Table 3.3 – Activities, Monitoring requirements

Monitoring point	Substance or parameter	Monitoring frequency	Monitoring method	Other specifications
Internal for each windrow and for any sample of waste or compost	Temperature Oxygen Water	None specified None specified None specified	Thermocouple probe Oxygen meter Moisture meter or moisture touch test	Monitoring equipment shall be available on-site and used as required to ensure compliance with these standard rules.

The Environment Agency monitoring certification scheme (MCERTS) provides for the product certification of monitoring systems (for example, instruments, analysers and equipment), the competency certification of personnel, the accreditation of laboratories and organisations involved in sampling. See www.environment-agency.gov.uk for further information on MCERTS certified equipment and www.ukas.org to search for MCERTS accredited stack testing organisations.

How to comply

General

MCERTS certified equipment, staff and laboratories should be used where practicable.

For some activities, monitoring may be necessary prior to development, during commissioning, start-up, normal operation, shutting-down and aftercare. Continuous monitoring and recording (or at least sampling in the case of water) is likely to be required:

- where the potential environmental impact is significant or the concentration of substance varies widely
- where there is an emission limit on a point source emission
- where a substance is abated, continuous monitoring of the substance will normally be required to show the performance of the abatement plant. For example continuous monitoring of dust is needed after a fabric filter to show the effectiveness of the filter and indicate when maintenance is needed, or sampling BOD from an effluent treatment plant.

Where effective surrogates are available, they may be used with our agreement (and without prejudice to legal requirements) to minimise monitoring costs.

Where monitoring shows that substances are not emitted in significant quantities, it may be reasonable to reduce the monitoring frequency.

For analysis techniques and compliance criteria see the Monitoring Guidance in Part 3. If substances need to be monitored that are not covered in these, you should contact us for advice.

Monitoring emissions to water, sewer and air and monitoring of process variables

Monitoring of emissions to air, water and sewer and monitoring of process variables is most frequently associated with IPPC Directive processes. The measures that you should employ to monitor these emissions are given in Part 2(1). However, standard rules permits and waste activities may sometimes also require these to be monitored. You should refer to Part 2(1) even if you are not subject to IPPC.

Environmental monitoring

You should consider whether you need environmental monitoring to assess the effects of emissions to controlled water, groundwater, air or land, or emissions of noise or odour. However, in the case of water discharge, groundwater activities and mining waste operations, where the Environment Agency already carries out monitoring of surface waters or groundwater and emission limits are set to prevent harm, there will generally be no need for operators to carry out ongoing environmental monitoring of surface waters or groundwater.

Environmental monitoring may be required, for example, when:

- there are vulnerable receptors
- the emissions are a significant contributor to an Environmental Quality Standard (EQS) that may be at risk

- you are looking for departures from standards based on lack of effect on the environment.

  you need to validate modelling work.

You should consider environmental monitoring for:

- groundwater, where it should be designed to characterise both quality and flow and take into account short and long-term variations in both. Monitoring will need to take place both up-gradient and down-gradient of the site
- surface water, where consideration will be needed for sampling, analysis and reporting for upstream and

.

  downstream quality of the controlled water
- air, including odour
- land contamination, including sampling vegetation, crops and soils
- assessment of health impacts
- noise.

Where environmental monitoring is needed, you should refer to the relevant monitoring guidance in Part 3

4. Further Information

4. Further Information

Records

Typical permit condition or rule

(Typically, condition 4.1.1 on the permit)

All records required to be made by this permit shall:

- be legible
- be made as soon as reasonably practicable
- if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made [or in the case of the following records until permit surrender
- off-site environmental effects
- matters which affect the condition of land and groundwater.][5]

[5] This does not apply to mobile plant, stand-alone water discharge activities or stand-alone groundwater activities.

How to comply

Keeping records for six years makes sure that there will be sufficient information if we do have to investigate an environmental incident, while avoiding an undue burden on operators. Many regulatory regimes require us to carry out a formal periodic review of all permits, usually once every four to eight years. Keeping records for six years will ensure that there are sufficient records to do so.

Records that need to be retained are those related to environmental protection. They do not have to include administrative records themselves, e.g. a work order or requisition note, but they should be able to tell us that something has been done.

Records may be held electronically. Times should be recorded using the 24-hour clock.

Reporting/Notification

Typical permit condition or rule

(Typically, condition 4.3.1 on the permit)

The Environment Agency shall be notified without delay following the detection of:

- any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution
- the breach of a limit specified in the permit
- any significant adverse environmental and health effects.

Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in Schedule xx to this permit within the time period specified in that schedule.

How to comply

The phrase “without delay” means that you must notify us as a priority, as soon as is practicable. “May cause” means uncontrolled events, those that fall outside your accident management plan or near misses.

Significant adverse environmental effects include harm to any sensitive receptors and significant impacts on properties.

If, during monitoring, you discover any breaches of the limits specified in your permit, we expect you to notify us as soon as the results have passed any laboratory quality assurance checks.

During normal working hours, you may be able to contact the site officer or the local Environment Agency office by telephone, fax or email. You can also use the Environment Agency’s incident hotline, 0800 807060. Calls are free and the hotline operates 24 hours a day, seven days a week.

Part 2 - Activity specific guidance

1 – Requirements for IPPC directive activities

1 Requirements for IPPC directive activities

1. Requirements for IPPC Directive activities

(Part A (1) activities listed in Schedule 1 of the Environmental Permitting Regulations)

General Management

Typical permit condition or rule
(Typically, condition 1.1.1 on the permit)

The operator shall manage and operate the activities:
(a)in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
(b)using sufficient competent persons and resources.

Typical permit condition or rule
(Typically, condition 1.1.2 on the permit)

Records demonstrating compliance with condition 1.1.1 shall be maintained.

Typical permit condition or rule

(Typically, condition 1.1.3 on the permit)

Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

How to comply

Incidents and non-conformances

You must be able to:

- detect abnormal operation and investigate the causes
- assess the information and decide what to do
- in the short-term, get back to normal operation
- in the long-term take steps to make sure the problem doesn't happen again
- where appropriate, make sure that the public would know what to do if a problem arises. (You are responsible for minimising the environmental impact of your activities and for responding to the concerns of the local community)
- have a complaints system and do whatever is necessary to prevent, or where that is not possible to minimise, the causes unless there are overriding security reasons for not doing so, display a notice at or near the site entrance telling the public about the nature of the site and who they can contact for further information or to notify a concern. It should be easily readable from outside the site in daylight hours and should include:
  - the permit holder's name (company name at least)
  - the operator's name if different (company name at least)
  - an emergency contact name and the operator's telephone number
  - a statement that the site is permitted by the Environment Agency
  - the permit number
  - Environment Agency national numbers, 0870 8506506 and 0800 807060 (incident hotline), (or any other number subsequently notified in writing by the Environment Agency).

Sufficient competent persons

You must have enough competent staff to manage and operate your activities without causing pollution.

Staff should have clearly defined roles and responsibilities. You should write down the skills required for each post and keep records of how each individual in that post has gained those skills and how they are kept up to date with, for example, refresher training. Where appropriate, you should keep written instructions for the work as well. We will refer to these records and instructions if we need to investigate an incident. You can demonstrate competence in various ways:

- academic qualifications e.g. a relevant degree
- professional qualifications e.g. membership of an appropriate institution
- vocational qualifications e.g. NVQs
- external training qualification/certification e.g. certificate of technical competence
- attendance at external or in-house training courses
- those with approved training to cascade that training to other staff

- mentoring as part of “on the job” training
- experience (as long as there is evidence that it is kept up to date).

Permit surrender and closure

When you come to apply to surrender your permit, you will need to be able to show that you have taken the necessary measures to avoid any pollution risk resulting from your activities and that the site has been returned to a satisfactory state (paragraphs 7.26 to 7.33 of the Defra and Welsh Assembly Government Environmental Permitting Guidance explain what ‘satisfactory state’ means).

Your management system will need to record details of how the land under the site was thoroughly protected at all times between the date the permit was issued (or when operations started), until the end of operations under the permit. You could do this, for example, by recording the use and maintenance of impermeable surfacing and leak-tight drains. If the land was contaminated before your permit began, we strongly advise that you to record details of this contamination. You should also record how you have cleaned up any incidents/spillages as they occur.

We will consider all of these records when you apply to surrender your permit. During compliance checks we will check the records are being collated properly. Section 4, Records and the H5 Site Condition Report Guidance (see Part 3) gives further information.

Technical competence schemes – for specified waste management activities only

Typical permit condition or rule

(Typically, condition 1.1.4 on the permit)

The operator shall comply with the requirements of an approved competence scheme.

How to comply

You must demonstrate technical competence by satisfying one of the accepted industry schemes approved by Defra. If you already hold a certificate of technical competence, or have previously successfully completed an Environment Agency assessment which is still valid, you will not be expected to get further qualifications.

All technically competent individuals will be required to demonstrate continuing competence by passing a periodic assessment which tests the candidate’s understanding of recent developments within the waste industry.

Candidates have two years in which to pass an assessment. Failure to do so within the deadline will result in loss of technical competence status. The continuing competence will apply to all including those previously ‘deemed competent’. Other methods for demonstrating continuing competence may be approved as new technical competence schemes are developed.

Guidance on site attendance for technically competent managers is provided at the end of this section.

Energy efficiency

Typical permit condition or rule

(Typically, condition 1.2.1 on the permit)

The operator shall:

- take appropriate measures to ensure that energy is used efficiently in the activities
- review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- take any further appropriate measures identified by a review.

This is a requirement from the IPPC Directive. However most companies would wish to be efficient in the use of energy for both environmental and financial reasons. Taking these actions would be good practice for any company.

The requirement to address energy efficiency will be satisfied provided if: either

- you meet the "Basic energy requirements" below and are a participant to a Climate Change Agreement (CCA)

or

- you meet the "Basic energy requirements" and "Energy supply techniques" below. Even where a Climate Change Agreement is in place, you should still consider whether your decisions on energy efficiency may impact on the production of other pollutants as part of your integrated environmental assessment.

For example:

- where the choice of fuel impacts upon emissions other than carbon, e.g. sulphur in fuel
- where the minimisation of waste by waste-to-energy does not maximise energy efficiency, e.g. by Combined Heat and Power (CHP)
- where the most energy-intensive abatement leads to the greatest reduction in other emissions.

If you hold an EU Emissions Trading Scheme (EU ETS) permit we will not impose, through your environmental permit, any requirements to reduce CO_2 emissions directly from those activities covered by your EU ETS permit. You can find out more about more EUTS here www.environment-agency.gov.uk/business/topics/pollution/32232.aspx

Further guidance is given in guidance note H2 Energy Efficiency (see Part 3).

Basic energy requirements

The requirements of this section are basic low-cost energy requirements that apply whether or not a CCA is in force for the installation.

How to comply

1 You should prepare a list/diagram of where the energy is used in your process.

2 You should provide the information in Table 1.2.1, below, annually.

3 You should provide the Specific Energy Consumption (SEC) for your

main activity (or activities) based on primary energy consumption for the products or raw material inputs that most closely match the main purpose or production capacity of the installation. (e.g. MWh/tonne of product). You should compare this against any benchmarks for your sector. (See BREF and Energy Efficiency Guidance).

4 You should regularly review your energy use and provide an energy efficiency plan that identifies CO_2 savings of each potential measure. For those not in a CCA you should turn this into an action plan. An example format of the energy efficiency plan is shown in Table 1.2.2 below.

Table 1.2.1 – Example breakdown of delivered and primary energy consumption

Energy Source delivered	Energy Consumption Primary MWh	MWh% of total
Electricity*		
Gas		
Oil		
Other (operator to specify)		
Exported energy	MWh	Source

* Specify source. Multiply delivered energy by 2.4 to obtain primary energy if the electricity is supplied from the national grid. If your electricity is from another source you may be able to justify using a different factor, to reflect the efficiency of generating and supplying the power.

Table 1.2.2 – Example format for energy efficiency plan

All applicants		Only applicants without CCA		
Energy efficiency measure	CO_2 savings (tonnes)	Equivalent Annual Cost (EAC) £k	EAC/CO_2 saved £/tonne	Date for implementation

Horizontal Guidance Note H2 provides an appraisal methodology. If you use a different appraisal methodology you must explain in the application how you have done the appraisal, and provide evidence that you have used appropriate discount rates, asset life and expenditure (£/t) criteria.

The energy efficiency plan is required to ensure that you have considered all relevant techniques. However, where a CCA is in place we will only enforce implementation of those measures 1-3 above.

5 You should use operating, maintenance and housekeeping measures in the following areas, wherever this will have a significant impact on the efficient use of energy at the installation: (Indicative checklists of appropriate measures are provided in Appendix 2 of the guidance note H2 Energy Efficiency.)

- air conditioning, process refrigeration and cooling systems (leaks, seals, temperature control, evaporator/condenser maintenance)
- operation of motors and drives
- compressed gas systems (leaks, procedures for use)
- condenser and cooling systems
- feedwater heating systems
- steam distribution and utilisation systems (turbines, leaks, traps, insulation)
- heat recovery systems
- space heating and hot-water systems
- lubrication to avoid high-friction losses
- boiler operation and maintenance, e.g. optimising excess air
- gas turbine/engine operation
- other maintenance relevant to the activities within the installation
- insulation, containment methods, (such as seals and self-closing doors)
- avoidance of unnecessary discharge of heated water or air (e.g. by fitting simple control systems such as timers and sensors).

6 You should use energy-efficient building services to deliver the requirements of the Building Services section of the guidance note H2 Energy Efficiency. For energy intensive industries these issues may be of minor impact and should not distract effort from the major energy issues. They should nonetheless find a place in the programme, particularly where they constitute more than 5 percent of the total energy consumption.

7 You should monitor energy flows and target areas for reductions. Energy supply techniques

Energy supply techniques

How to comply

You should demonstrate that you have considered alternative, more efficient forms of generating electricity and heat where a cost/benefit appraisal shows them to be appropriate. You should use the methodology provided in Horizontal Guidance Note H2 for your cost/benefit appraisal. The following techniques should be considered where practicable:

- use of Combined Heat and Power (CHP)
- using renewable energy sources
- generation of energy by co-incineration of your waste.[6]
- joint schemes with other local operators which may make CHP more attractive
- use of less polluting fuels.

[6] Note that in most cases where this is done, the Waste Incineration Directive requirements will have to be applied.

Efficient use of raw materials and water

Typical permit condition or rule

(Typically, condition 1.3.1 on the permit)

The operator shall:

- take appropriate measures to ensure that raw materials and water are used efficiently in the activities
- maintain records of raw materials and water used in the activities
- review and record at least every 4 years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- take any further appropriate measures identified by a review.

The efficient use of raw materials, running at optimum rates and minimising breakdowns and planned shutdowns are good for the environment and can have a significant impact on profits. The steps outlined below simply lead you through the steps of analysing your processes. You should also follow the links in Part 3 where you will find a wealth of assistance to help you to make improvements.

Raw material selection

Selecting raw materials and the process techniques presents an opportunity to control emissions at source by reducing usage or substituting materials that are less harmful or which can be more readily abated.

How to comply

You should make a list of the main materials used which have potential for significant environmental impact, including:

- quantities used
- chemical composition, where relevant
- fate of the material (i.e. approximate percentages to air, land, water and products)
- environmental impact potential, where known (e.g. toxicity, bioaccumulation potential, degradability)
- any practicable alternative materials that may have a lower environmental impact
- justification for the continued use of any substance for which there is a less hazardous alternative (e.g. on the basis of impact on product quality or costs vs. environmental benefits).

You should have procedures for controlling the impurity content of raw materials. You should consider whether changes to the process could make savings on raw materials or water use. You should review this situation regularly.

Waste minimisation audit (optimising the use of raw materials)

How to comply

You should carry out a waste minimisation audit at least every four years. The first audit shall take place within two years of the issue of your permit unless your application has included details of a satisfactory audit carried out in the two years prior to submission of the application.

You should submit the methodology used for the audit and an action plan for reducing the use of raw materials within

two months of completion of the audit. The audit should be carried out as follows:

- process mapping. Map the use and fate of raw materials and other materials, (including by-products, solvents and other support materials, such as fuels, catalysts and abatement agents), onto a process flow diagram. Use data from the raw materials inventory and other company data as appropriate
- materials mass balance. Analyse data for each principal stage of the operation in order to construct a mass balance for the installation
- action plan. Using the information from process mapping and the materials mass balance, assess opportunities for improved efficiency and waste reduction by changes in process. Prepare an action plan. The timescale for implementing the improvements should be agreed with us.

Minimising water use

How to comply

Review

You should carry out a review of water use (a water efficiency audit) at least every four years. The first audit shall take place within two years of the issue of your permit unless your application has included details of a satisfactory audit carried out in the two years prior to submission of the application.

When reviewing water use you should:

- inspect water supply pipework systems regularly and repair any leaks as soon as practicable
- produce flow diagrams and water mass balances for your activities
- establish water efficiency objectives, based on benchmarks in sector specific guidance or the relevant BREF note
- identify constraints on reducing water use beyond a certain level
- use water pinch techniques in more complex situations such as chemical plant, to identify the opportunities for maximising reuse and minimising use of water
- establish the water quality needs of each use, so that you can identify opportunities for recycling
- use this information to identify opportunities for reducing water use
- prepare an action plan to reduce water use.

The timescale for implementing the improvements should be agreed with us.

Measures

You should apply the following general techniques in sequence to reduce emissions to water:

- use water-efficient techniques at source wherever possible
- recycle water within the process from which it issues, by treating it first if necessary. Where this is not practicable, recycle it to another part of the process that has a lower water quality requirement
- if you cannot use uncontaminated roof and surface water in the process, keep it separate from other discharge streams, at least until after the contaminated streams have been treated in an effluent treatment system and been subject to final monitoring
- keep more contaminated water streams separate from less contaminated streams, such as cooling waters, where there is scope for reuse – possibly after some form of treatment
- consider the use of treated final effluent, perhaps after mixing with fresh water
- consider membrane treatment of effluent which can give water suitable for use in your process. The amount of effluent can be greatly reduced or even eliminated. In some circumstances, filtration and membrane treatment can replace a conventional effluent treatment plant

- directly measure and record fresh water consumption regularly, ideally every day, at every significant usage point
- as part of your ongoing management, you should include general efficiency techniques such as:
  - vacuuming, scraping or mopping in preference to hosing down
  - reusing wash water (or recycled water) where practicable
  - using trigger controls on all hoses, hand lances and washing equipment.

Avoidance, recovery and disposal of wastes

Typical permit condition or rule

(Typically, condition 1.4.1 on the permit)

The operator shall:

- take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment
- review and record at least every 4 years whether changes to those measures should be made; and
- take any further appropriate measures identified by a review.

How to comply

This condition is important because it requires you to demonstrate waste avoidance or reduction measures. It also requires that where waste is produced you do not automatically choose the cheapest waste disposal option but consider recovery options. It requires you to think about the impact on the environment of all the available options and select the option which is best for the environment.

You will be required to:

- comprehensively characterise and quantify each waste stream arising from the regulated facility
- describe how each waste stream is to be recovered or disposed of.

If you propose any disposal:

- explain why recovery is technically and economically impossible; and
- describe the measures planned to avoid or reduce any impact on the environment.

The records should include the characterisation information, including any waste analysis methods, how and where wastes are recovered or disposed of, how the assessment considered all available technical options and the economics and environmental impact of each disposal option.

Waste acceptance – activities taking in waste only

Typical permit condition or rule

(Typically, condition 2.3.3 on the permit)

Waste shall only be accepted if:

- it is of a type and quantity listed in Schedule X Table X1, X2 and so on; and it conforms to the description in the documentation supplied by the producer and holder.

How to comply

The following guidance applies if you only accept low risk non-hazardous waste such as municipal waste. If you accept higher risk waste, including any form of hazardous waste, you should ensure you meet the additional, more detailed standards in S5.06 for waste pre-acceptance, acceptance and storage (see Part 3).

You should check wastes when they arrive and accept them only if your permit allows them and if they meet the description given in the waste transfer note or other documentation.[7]

The table will usually use the waste definitions given in the List Of Waste Regulations (known as the EWC codes). You must not accept any wastes not listed in your permit.

We may restrict permitted wastes by, for example, limiting the quantity received, stored or treated or their composition.

Your procedures for checking the wastes should include:

- the location where checking will be carried out
- the extent of visual checks and any sampling and analysis required.

Your procedures should be proportionate to the environmental risk caused if the waste is not as described. This may be because the whole load is something different or because the load is mostly what it should be, but contains a small proportion of some other material (commonly known as 'contraries'). You need to check all wastes because the presence of 'contraries' is a common cause of environmental incidents.

Despite these control measures, you may find 'contraries' in a consignment that has already been accepted onto site. You should be prepared for this. You should identify and quarantine the 'contraries' before sending them to an authorised site as soon as practicable. When you find 'contraries' you should investigate the cause. To stop it happening again, you might, for example, contact and work with the producer to prevent reoccurrence or send the 'contraries' back to the producer.

Where your procedures for checking the waste and the documentation identify waste that cannot be accepted onto site you should make a record of this. You must keep records of the waste received at the site, including the quantity, characteristics, origin, delivery date and the identity of the producer. Section 4 of the permit describes how to keep records.

[7] If you transfer non-hazardous waste between your own sites and there is no change in ownership, we will expect the information given in other documentation and subsequently held on site as a record of those transactions to be of the same standard as that required for a duty of care waste transfer note. For hazardous wastes the notification, consignment, records and returns requirements of the Hazardous Waste Regulations must be met for such internal movements.

Emissions to air, water and land

Typical permit condition or rule

(Typically, condition 3.1.1 on the permit)

There shall be no point source emissions to air, water or land, except from the sources and emission points listed in Schedule x, tables y.y, and z.z.

The limits given in Schedule x, tables y.y, and z.z. shall not be exceeded.

Point source emissions to air

How to comply

You should identify the main chemical constituents of your emissions, including the separate compounds that make up your emissions of volatile organic compounds (VOCs) where practicable.

You should assess the dispersion capability of your vent and chimney heights and make an assessment of the fate of the substances emitted to the environment.

You should aim to avoid visible emissions even where you already meet particulate benchmarks. However, because plume visibility is extremely dependent on the particle size and reflectivity, the angle of the light, and the sky background, we accept that, even when BAT is employed and very low emissions are being achieved, some plumes may still be visible under particular conditions.

You should minimise water vapour plumes wherever practicable.

However, you should not use primary energy to reduce a plume simply because it is visible; we do not consider this to be BAT. It may be appropriate to use waste or recovered heat to reduce a plume. For example, heat from a gas stream prior to wet scrubbing can be used to re-heat the same exhaust stream after scrubbing by means of a gas-gas heat exchanger. The use of energy for exhaust gas re-heat should be balanced against the benefits gained.

The emissions benchmarks in the relevant activity-specific guidance describe levels that are achievable using best available techniques. If you cannot prevent an emission, you should use the appropriate techniques to ensure the emission limits in your permit are met.

Point source emissions to water

How to comply

You should prevent releases of harmful substances to the aquatic environment where practicable, whether releases are direct or via the sewage treatment works. You must use appropriate measures, as defined in our H1 risk assessment guidance, to prevent the input of hazardous substances to groundwater. Similarly, you must limit the input of non-hazardous pollutants to groundwater to ensure that they do not cause pollution of groundwater. You should prevent releases to surface water and groundwater completely where this is practicable.

You should apply the following general principles in sequence to control emissions to water:

- you should minimise water use and reuse or recycle wastewater

- you should minimise the risk of contaminating process water, surface water or groundwater
- wherever possible you should use closed loop cooling systems and use procedures to ensure blow down is minimised
- if you use any potentially harmful materials you should prevent them from entering the water circuit.

You should consider using filtration/osmosis or other techniques which allow the effluent water to be cleaned for release or, preferably, for return to the process. If you use such a technique you should consider particularly how you dispose of the concentrated residues. These can often be returned to furnaces, evaporated, solidified, sent for incineration and so on. Tankering of such residues off the site as waste, simply transfers the problem to another place, unless they are sent to a facility with the genuine ability to recycle the materials.

If the pollutants in the waste water are all readily biodegradable or the effluent contains only materials which are naturally occurring in much larger quantities in the receiving water, you may be able to justify not using filtration/osmosis or similar techniques. The emissions benchmarks in the relevant activity-specific guidance describe levels that are achievable using best available techniques. If you cannot prevent an emission, you should use the appropriate techniques to ensure the emission limits in your permit are met.

Where effluent is treated off-site at a sewage treatment works the above factors still apply. In particular, you must demonstrate:

- that the treatment provided at the sewage treatment works is as good as would be achieved if the emission were treated on-site, based on reduction of load (not concentration) of each substance to the receiving water. (The H1 software tool will help in making this assessment.)
- that action plans are appropriate to prevent direct discharge of the waste-waters in the event of sewer bypass (via storm/emergency overflows or at intermediate sewage pumping stations). Where your discharges are significant, you should make arrangements with the sewerage undertaker to know when bypass is occurring, and reschedule activities such as cleaning, or even shut down the process entirely if that is necessary to prevent discharge of untreated effluent direct to controlled water
- that a suitable monitoring programme is in place for emissions to sewer
- that you know the identity of the main chemical constituents of the treated effluent (including the make-up of the chemical oxygen demand (COD) and the presence of any substances of particular concern to the aqueous environment). The fate of these chemicals in the environment should be assessed.

The concept of BAT requires prevention or minimisation of releases where it is cost effective to do so. In some cases, this may not be sufficient to achieve the water quality standards, meaning that you will need to use techniques which are more environmentally effective than BAT (even if not cost effective) or we may not be able to permit continued operation of the installation.

Emissions of substances not controlled by emission limits

Typical permit condition or rule

(Typically, condition 3.2.1 on the permit)

Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in table y below and in any approved emissions management plan, have been taken to prevent or, where that is not practicable, to minimise, those emissions.

The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan
- implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

How to comply

Fine dusts, fumes and volatile organic compounds can lead to serious health impacts. Scavenging animals, scavenging birds and other pests, including flies, can introduce substances into the environment that may spread disease. Similarly, emissions from waste or other materials stored on site can attract pests. Leaks to ground or water can have serious effects on water supplies and aquatic ecosystems. You need to prevent or minimise these, no matter how near or far people or other receptors may be.

Other pollutants, such as coarse dust, mud and litter may be only a localised nuisance. However, you do not have the right to cause pollution or offence outside your site due to your activities. Your neighbours have a right to expect that your activities will not detract from their quality of life. They have a right to expect that their environment will be free from emissions caused by your activities either on a continuous basis or at frequent intervals.

While there may be no problem at the moment, if circumstances change, for example development occurs around your site such that your activities then affect people outside the site, you will have to take action to prevent or minimise those problems.

The following are typical measures that you should take, where appropriate.

Emissions to surface water and groundwater

For surfacing, you should:

- make sure that surfacing and containment or drainage facilities are adequate for all operational areas, taking into consideration collection capacities, surface thicknesses, strength/reinforcement, falls, materials of construction, permeability, resistance to chemical attack, and inspection and maintenance procedures
- have an inspection and maintenance programme for impervious surfaces and containment facilities

- unless the risk is negligible, have improvement plans in place where operational areas do not already have:
  - an impervious surface
  - spill containment kerbs
  - sealed construction joints
  - connection to a sealed drainage system.[8]

For detailed design standards on surfacing refer to the guidance in Part 3.

Dust, mud and litter

- carry out operations inside buildings
- avoid outdoor or uncovered stockpiles
- where you must use outdoor stockpiles, control them by means of sprays, binders, windbreaks, careful siting in relation to sensitive receptors, controlling the moisture content of the material delivered and orientation of long stockpiles in the direction of the prevailing wind
- design to minimise handling operations
- erect litter fences around the site so you can catch it
- enclose conveyors and minimise drops, or use pneumatic or screw conveying
- install filters to vents on silos, building extractors and conveying systems
- surface roadways
- plant grass or trees on open ground where appropriate (hydro-seeding can rapidly establish vegetation on waste tips, slag heaps or other apparently infertile ground)
- cover vehicles, skips and vessels
- have rigorous maintenance standards
- minimise points of access from the public highway
- make sure vehicles stay on paved areas
- regularly clean and dampen roadways and vehicle wheels
- use water-filled troughs to slow trucks, wash wheels and keep roadways damp
- clean spillages with vacuum cleaners rather than washing down
- avoid certain activities when there are high winds
- clear litter and mud at the end of each working day, unless it is impractical or unsafe to do so.

Fine particulate and fumes

Controls for fine particulate and fumes, particularly from combustion processes, are given in the appropriate activity-specific guidance (see Part 3).

Volatile organic compounds (VOCs)

- enclose open vessels and fit abatement equipment to vents
- install sealed transfer (vapour balance) systems
- use sub-surface filling via (anti-syphon) filling pipes extended to the bottom of the container
- use floating roof tanks and bladder roof tanks
- treat specific releases (by techniques such as adsorption or condensation)
- use tank vent systems that minimise breathing losses (e.g. the use of pressure/vacuum valves). Fit knock-out pots and appropriate abatement equipment where necessary
- inventory management
- reduce leakage from pipework or fluid transport systems
- use white paint, insulation and active temperature control to reduce the temperature in storage tanks.

[8] A sealed drainage system is a drainage system with impermeable components which does not leak and which will ensure that no liquids will run off a surfaced area other than via the system. Except where they are lawfully discharged, all liquids entering the system should be collected in a sealed sump.

Substances introduced into the environment by pests

- regular inspections by nominated personnel
- isolation and securing/removal of wastes that are attracting scavengers
- employing professional pest controllers, either directly or by contract
- effective scaring or other deterrent methods
- netting.

Odour

Typical conditions or rules

(Typically, condition 3.3.1 on the permit)

Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable, to minimise, the odour.

The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan
- implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

How to comply

If there is a significant possibility that odour from your activities may cause offence beyond your site boundary, you should have a written odour management plan. This should show what the sources and risk to receptors are, the measures you will employ and how you will respond to prevent or minimise the odour. H4 Odour guidance for operators describes how to do this and links to example odour management plans for various types of activity. You may need to update this plan with further measures as necessary to ensure that the condition continues to be met. **Activities for which odour is a key issue and should always have an odour management plan, are listed in Part 3.**

You do not have the right to cause odours outside your site due to your activities. While for some activities it may not be practicable to avoid all odour, your neighbours have a right to expect that your activities will not detract from their quality of life.

It is up to you to take all reasonable steps/all appropriate measures to prevent such emissions, or where that is not practical, to minimise them. Unless already specified in your permit, the measures you decide to use will depend on your industry sector/regime and your individual circumstances.

While there may be no problem at the moment, if circumstances change, for example development occurs around your site such that your activities then affect

people outside the site, you will have to take action to prevent or minimise those problems.

There are a number of options available to control odour. We will expect you to balance the costs and environmental benefits. The measures you decide to use will have to meet the objective of the condition.

Appropriate measures to reduce odour problems include:

- managing the receipt, storage and handling of the materials, for example by choosing raw materials that are less likely to cause odour problems and cutting the quantities and storage times of biodegradable materials
- avoiding operations that give rise to smells, for example avoiding conditions which encourage anaerobic breakdown and reducing temperatures and exposed surface areas
- enclosing smelly materials and activities in a building or vessels
- engaging with your neighbours and responding to their concerns or complaints
- reducing or stopping your activities that are causing the odour until either the circumstances have changed or other appropriate measures have been put in place to allow the operations to re-commence without causing offence.

These and other measures are described in H4 – Odour guidance for operators.

We may impose the condition 'The emission from Point x shall not exceed Y odour units'. This sets a quantitative limit on an odorous emission from a specified source. It does not remove your responsibility for controlling odours from all other sources.

Noise and vibration

Typical permit condition or rule

(Typically, condition 3.4.1 on the permit)

Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable, to minimise, the noise and vibration; or

The (rating) level of noise emitted from the site (during normal operations/annual shutdown and maintenance) shall not exceed (X) dB, expressed as an LAeqT, between (hhmm) and (hhmm) Mon to Fri and (Y) dB at any other time, as measured or assessed on the (specified boundary/boundaries/location) of the site at (locations x,y,z) on plan reference Y attached to this permit. The locations shall be chosen and the measurements and assessment made according to BS4142:1997.

The provision for management plans is the same as for odour.

How to comply

If you are likely to cause any significant noise beyond your site boundary, you should have a written noise management plan. This should show what the sources and the risks to receptors are, the measures you will employ and how you will respond to prevent or minimise the noise. You may need to update this plan

with further measures to ensure that the condition continues to be met.

The situation, and your responsibilities for controlling noise are very similar to those for controlling odour (see the previous section).

Appropriate measures to reduce/control noise include:

- monitoring noise levels at different places and times to find where the problem is coming from
- maintaining equipment specifically to reduce noise levels, e.g. balancing fans and fixing loose covers
- enclosure or abatement – e.g. acoustic enclosures, silencers, keeping doors and other openings in buildings closed
- timing – e.g. avoiding noisy work during evenings and weekends
- siting away from sensitive receptors – e.g. of delivery or vehicle routes or noisy plant
- switching off plant, vehicles and ventilation units when not in use
- reducing or stopping your activities that are causing the noise until either the circumstances have changed or other appropriate measures have been put in place to allow the operations to re-commence without significant noise.

Guidance note H3 Noise and some of the activity-specific guidance notes give more guidance on noise assessment and control and how to draw up a noise management plan (see Part 3).

Where we place a numerical limit, it applies only at the designated measurement points. It does not remove your responsibility for controlling noise from your activities at all other points outside the site boundary.

As a guide, annoyance becomes more likely where the resulting field rating level (LAR,TR) exceeds 50 dB by day and a facade rating level exceeds 45 dB by night (23:00 to 07:00). Where very low background levels prevail, site noise levels should not be significantly above the background and, if practicable, should be well below. If you are in an area covered by the Environmental Noise Regulations 2006, site noise levels should, as far as practicable, be less than an Lden value of 55 dB(A) or an Lnight value of 50 dB(A).

Sometimes ambient noise increases over time (creeping background). This increases the environmental value of noise abatement measures. Where this has been identified in discussions with ourselves or previously with the local authority, you must consider it when planning noise control techniques to maintain acceptable noise levels.

You may need to carry out noise surveys, measurements, investigations (e.g. on sound power levels of individual items of plant) or modelling to resolve more difficult problems.

It is sometimes necessary to carry out temporary works, such as alterations or major maintenance programmes, which will cause more noise than normal. You should notify us, and your neighbours, if you intend to do this. You should take reasonable steps to minimise the duration and impact of any such works, by for example carrying out the work only between the hours of 09.00 and 17.00 Monday to Friday excluding Bank Holidays**.**

Monitoring

Typical permit condition or rule

(Typically, condition 3.5.1 to 3.5.4 on the permit)

The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake monitoring specified in the following tables in Schedule x to this permit:

Point source emissions specified in tables Sxx, Sxx and Sxx;

Surface water and groundwater specified in table Sxx;

Noise specified in table Sxx;

Ambient air monitoring specified in table Sxx;

Process monitoring specified in table Sxx;

Land specified in table Sxx.

How to comply

Monitoring of emissions to water and sewer

If effluent flow monitoring is included as part of the permit and there is a numeric value such as total daily volume then the MCERTS: self monitoring of effluent flow scheme will apply. This will include all effluent emissions including those to public sewer. An 8% target uncertainty will apply to the emission. An inspection of the flow monitoring arrangements and the associated management system will have to be carried out. Details of how the scheme operates can be found at www.environment-agency.gov.uk

Your permit will specify the parameters to be monitored and the frequency of monitoring. Even if no parameters are specified in your permit, it is good practice to monitor flow rate, pH, temperature, COD, turbidity, and oil content. The frequency of such monitoring will depend upon the sensitivity of the receiving water and should be proportionate to the scale of your operations. See Table 3.5.1 on page 46.

Before submitting an application, you should have a fuller analysis carried out covering a broad spectrum of substances, to establish that all relevant substances have been taken into account. This should cover the substances listed in Schedule 5 of the Regulations unless we agree that they are not applicable.

The need to repeat such a test will depend upon the potential variability in the process and, for example, the potential for contamination of raw materials. Where there is such potential, further tests may be appropriate.

Any substances found to be of concern, or any other individual substances that may be in your discharge and to which the local environment may be susceptible should also be monitored more regularly. This would particularly apply to the common pesticides and heavy metals.

Composite samples are acceptable where the concentration does not vary excessively.

In some sectors there may be releases of substances that are more difficult to measure and whose capacity for harm is

uncertain, particularly when combined with other substances. “Whole effluent toxicity” monitoring techniques can therefore be appropriate to provide direct measurements of harm, for example, direct toxicity assessment (see Part 3, Monitoring guidance).

Monitoring of emissions to air

Your permit will specify the parameters to be monitored and the frequency of monitoring.

Where appropriate, you should undertake periodic visual and olfactory assessment of releases to ensure that all final releases to air are essentially colourless, free from persistent trailing mist or fume and free from droplets and odour.

There are a wide variety of possible releases to air, and specific information may be found in the activity-specific guidance (see Part 3).

In general:– We would expect continuous monitoring where the releases are significant and where it is needed to maintain good control; e.g. NOx emissions.

- gas flow should be measured, or otherwise determined, to relate concentration to mass releases
- to relate measurements to reference conditions, you will need to determine and record:
  - temperature and pressure
  - water vapour content, where the emissions are the result of a combustion process or any other wet gas stream. This is not needed where the water vapour content is unable to exceed 3% by volume or where the measuring technique measures the other pollutants without removing the water
  - for combustion processes, oxygen content on a dry basis.
- reference conditions are:
  - temperature 0°C (273K)
  - pressure 101.3 kPa
  - for oxygen and water content see the activity specific guidance for your sector
  - M2 monitoring of stack emissions to air explains how to convert measured values to reference conditions (see Part 3).

Monitoring of process variables

Some process variables may affect the environment and you should identify and monitor these as appropriate.

Examples might be:

- monitoring raw materials for contaminants where contaminants are likely and there is inadequate supplier information
- plant efficiency where it has an environmental relevance
- energy consumption across the plant and at individual points of use in accordance with the energy plan
- monitoring pressure drop across a bag filter or the temperature of a process where these confirm that the emissions will be under control.

Table 3.5.1

Parameter	Monitoring frequency for typical plant	Monitoring frequency for small plant
Flow rate	Daily, and preferably continuous with integrated flows	Daily or weekly measurement (or estimate) of flows
pH	Continuous	Daily spot measurement
Temperature	Spot, or continuous in more critical situations	Spot, or not required depending on the situation
COD/BOD	Weekly	Daily or monthly spot, or not required

		depending on the situation
Turbidity	Daily visual observation or continuous in more critical situations	Daily/weekly visual observation or not required depending on the situation
Oil content	Daily visual observation or continuous in more critical situations	Daily/weekly visual observation or not required depending on the situation

(i) We haven't defined small plant precisely in the table above, but for the purposes of these monitoring requirements they will typically have a discharge <20m3/day.
(ii) The extent of monitoring required will depend on whether the discharge is to sewer or direct to controlled water, and in the case of the latter, the sensitivity of this water.

Records

Typical permit condition or rule

(Typically, condition 4.1.1 on the permit)

All records required to be made by this permit shall:

- be legible
- be made as soon as reasonably practicable
- if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made or in the case of the following records until permit surrender:
  - off-site environmental effects
  - matters which affect the condition of land and groundwater.

How to comply

Keeping records for six years makes sure that there will be sufficient information if we do have to investigate an environmental incident, while avoiding an undue burden on operators. Many regulatory regimes require us to carry out a formal periodic review of all permits, usually once every four to eight years. Keeping records for six years will ensure that there are sufficient records to do so.

You must keep records of any off-site environmental effects including pollution incidents that caused, or are alleged to have caused, harm or health effects until you surrender the site. This enables us, in the future, to investigate any cumulative effects of the activities.

You should keep records related to the condition of land and groundwater until you surrender the site. We expect you to keep all records that demonstrate that emissions to land from your activities have not caused any deterioration. The records relate to the initial state of the site. To demonstrate that there has been no deterioration we will expect you to know what this initial state is. The H5 Site Condition Report Guidance provides advice that will enable you to make sure that all appropriate records are kept (see Part 3).

The records you will need to keep until permit surrender will include the design, construction, inspection, monitoring, maintenance and failure records for pollution prevention measures, such as surfacing and drainage. You will also need to record spills and incidents, what you do to investigate and make good those incidents and any action taken when an Environment Agency officer notes any relevant non-conformances or failures.

Duty of care records only need to be kept for 2 years.

If you manage hazardous waste you will also need to comply with the additional site record and return requirements arising from Part 7 of the Hazardous Waste Regulations.

Records may be held electronically. Times should be recorded using the 24-hour clock.

Reporting/Notification

Typical permit condition (does not apply to standard rules)

(Typically, condition 4.3.5 on the permit)

Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- the Environment Agency shall be notified at least 14 days before making the change; and
- the notification shall contain a description of the proposed change in operation.

How to comply

Change in operation

If you want to change your operation, but the change is not contrary to your permit conditions, or would require you to submit an application such as a partial transfer or surrender of your permit, then you do not have to vary your permit.

When the proposed change in operation falls within the criteria set out in the condition, and explained below, you must notify us at least 14 days in advance of making the proposed change and the notification must contain a description of the change.

- a change in the **nature** of the activities is a change in what is being done (e.g. a change in feedstock or by products and so on)
- a change in the **functioning** of the activities is a change in how the activities are carried out (e.g. moving to a batch treatment process from a continuous treatment process)
- an **extension** is a change in size affecting the capacity of the facility to carry out the activities (e.g. removing treatment or storage capacity at the facility).

Site attendance guide for technically competent managers (applies to specified waste management activities only)

This guidance has been updated to reflect changes to our OPRA system. It applies to operators using the existing Wamitab scheme, operators who have passed an Environment Agency assessment or any future scheme that refers to our guidance.

Minimum site attendance standards for technically competent managers are shown in the table below. You must meet these standards if:

- you have been operating for less than six months
- you have been carrying out an activity for less than six months
- you do not have a settled management system i.e. a lack of accredited, written and adhered to procedures
- you have not agreed alternative minimum attendance with us in writing
- your Compliance Rating score is over 16 in any quarter, which shows that activities appear to be running beyond the control of the management.

The Compliance Rating score is calculated by the number and category of non-compliances assessed by our Compliance Classification Scheme. A score of 16 or more in any quarter equates to more than 4 category 3 breaches or a category 2 non-compliance.

When we consider agreeing an alternative standard of attendance with you we will look at the activity authorised and carried out on site, the waste types you handle, and past compliance record.

Where the minimum site attendance standard is met for a particular facility we will view this as evidence that there is adequate management control unless the compliance record indicates otherwise. If the minimum attendance time is insufficient to ensure compliance, the technically competent manager should bring this to the attention of the operator and record the fact in the site diary.

The technically competent manager must be in a position to direct activities on the site. This will be reflected in the operator's management system and operational procedures.

There must be a minimum site attendance of one hour a week on all operational sites. A week starts on Sunday at midnight and ends on the following Sunday at midnight. We consider that a site is operational when it is either accepting or removing waste, or undertaking any process or activity involving waste that should be under the day-to-day control of a technically competent manager.

We require a minimum attendance of 1 hour per week for in-house facilities taking only their own waste. If the facility is non-operational i.e. zero operational hours, site attendance is not required.

You must keep records of weekly operational hours and site attendance i.e. start and finish times of operations and arrival and departure times of the technically competent manager. Record this information in a site diary or log. The records must be available for us to inspect.

We apply a cap of 48 hours per week for site attendance for all facility types. We would not normally expect the technically competent manager to provide more than 48 hours towards the provision of technically competent management in line with the European Working Time Directive on working weeks hours.

If you operate two or more separately authorised facilities which share a common boundary, the site attendance requirements are those for the facility with the higher attendance percentage. The

appropriate technical competence qualification will be necessary for each type of facility. For example where there is a separately authorised civic amenity site on a landfill site, the attendance requirements of the landfill will satisfy the attendance requirements for both facilities by a technically competent manager holding both the relevant awards.

For landfill sites in post closure phase, where waste input has been completed and the only continuing authorised activities are the management of landfill gas, stability, water and leachate, you do not need a technically competent manager to attend the site to demonstrate technical competent management. Consequently one technically competent manager can demonstrate technically competent management for any number of closed sites.

Calculating attendance at waste sites
Add up Attendance Points for Complexity, Location and Emissions Bands.

Opra attribute bands				
Attribute	**Low**	**Med**	**High**	**Highest**
Complexity Band	-	A	BC	DE
Location Band	A	BC	D	E
Emissions Band	A	B	C	DE
Attendance Points	1	2	3	4

If your OPRA profile details different waste activities (rather than multiple plant), include a score for each complexity band.

For tier 2 permits, we expect a minimum attendance of 20% unless you agree an alternative with us.

Total attendance points	**Attendance**
3	5%
4	10%
5	15%
6	20%
7	25%
8	30%
9	35%
10	40%
11	45%
12	50%
Over 12	55%

2. – Requirements for waste operations

2. Requirements for waste operations

2. Requirements for waste operations

General management

Typical permit condition or rule
(Typically, condition 1.1.1 on the permit)

The operator shall manage and operate the activities:
(a)in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
(b)using sufficient competent persons and resources.

Typical permit condition or rule

(Typically, condition 1.1.2 on the permit)

Records demonstrating compliance with condition 1.1.1 shall be maintained.

Typical permit condition or rule

(Typically, condition 1.1.3 on the permit)

Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

How to comply

Operations

The reference to "operations" in 1.1.1(a) means that you must consider how to avoid or minimise the environmental risks and impact of the normal running of the activities. Normal running includes start ups, shut downs, and variations in materials or waste received and so on. You should have contingency plans that ensure a minimum impact on the environment in the case of breakdown, enforced shutdown and so on.

If you store waste pending its disposal or recovery elsewhere, your management system must include:

- storage times and procedures to ensure that these times are not exceeded
- maximum storage capacities for specified storage areas and the facility as a whole and procedures to ensure that these capacities are not exceeded
- maximum storage heights to prevent or minimise the emission of dust, litter and so on
- a procedure to identify the specific waste types stored at your facility.

Incidents and non-conformances

You must be able to:

- detect abnormal operation and investigate the causes
- assess the information and decide what to do
- in the short-term, get back to normal operation
- in the long-term take steps to make sure the problem doesn't happen again
- where appropriate, make sure that the public would know what to do if a problem arises. (You are responsible for minimising the environmental impact of your activities and for responding to the concerns of the local community)
- have a complaints system and do whatever is necessary to prevent, or where that is not possible to minimise, the causes.

Unless there are overriding security reasons for not doing so, display a notice at or near the site entrance telling the public about the nature of the site and who they can contact for further information or to notify a concern. It should be easily readable from outside the site in daylight hours and should include:

- the permit holder's name (company name at least)
- the operator's name if different (company name at least)
- an emergency contact name and the operator's telephone number
- a statement that the site is permitted by the Environment Agency
- the permit number
- Environment Agency national numbers, 0870 8506506 and 0800 807060 (incident hotline), (or any other number subsequently notified in writing by the Environment Agency).

Sufficient competent persons

You must have enough competent staff to manage and operate your activities without causing pollution.

You and your staff (where you have them) should have clearly defined roles and responsibilities. You should write down the skills required for each post and keep records of how each individual in that post has gained those skills and how they are kept up to date with, for example, refresher training. Where appropriate, you should keep written instructions for the work as well. We will refer to these records and instructions if we need to investigate an incident. You can demonstrate competence in various ways:

- academic qualifications e.g. a relevant degree
- professional qualifications e.g. membership of an appropriate institution

- vocational qualifications e.g. NVQs
- external training qualification/ certification e.g. certificate of technical competence
- attendance at external or in-house training courses
- those with approved training to cascade that training to other staff
- mentoring as part of "on the job" training
- experience (as long as there is evidence that it is kept up to date).

Permit surrender and closure (does not apply to waste mobile plant)

When you come to apply to surrender your permit, you will need to be able to show that you have taken the necessary measures to avoid any pollution risk resulting from your activities and that the site has been returned to a satisfactory state if your aim is to return the site to the condition before the waste operations started (paragraphs 7.26 to 7.33 of the Defra and Welsh Assembly Government Environmental Permitting Guidance explain what 'satisfactory state' means). For waste operations that do not involve permanent deposits of waste you will of course need to remove any residual waste deposits.

For operations not involving the permanent deposit of waste, this means that within your management system you will need to record details of how the land under the site was thoroughly protected at all times between the date the permit was issued (or when operations started), until the end of operations under the permit. You could do this, for example, by recording the use and maintenance of impermeable surfacing and leak-tight drains. If the land was contaminated before your permit began, we strongly advise that you to record details of this contamination. You should also record how you have cleaned up any incidents/spillages as they occur.

For landfills and waste recovery operations that involve the permanent deposit of waste, it is not possible to return the site to the state that existed before operations started. Your records within your management system should focus on either:

- compliance with the waste acceptance procedures at the site for operations that involved the acceptance of waste that was inert or suitably low risk; or
- demonstrating that relevant closure procedures have been complied with, and the waste has stabilised so that pollution control measures are no longer necessary and that the deposits of waste will not cause pollution.

We will consider all of these records when you apply to surrender your permit. During compliance checks we will check the records are being collated properly. Section 4, Records and the H5 Site Condition Report Guidance (see Part 3) give further information. We are also developing our technical guidance on the surrender of permits for the permanent deposit of waste.

Technical competence schemes

Typical permit condition or rule

(Typically, condition 1.1.4 on the permit)

The operator shall comply with the requirements of an approved competence scheme.

How to comply

You must demonstrate technical competence by satisfying one of the accepted industry schemes approved by Defra. If you already hold a certificate of technical competence, or have previously successfully completed an Environment Agency assessment which is still valid, you will not be expected to get further qualifications.

All technically competent individuals will be required to demonstrate continuing competence by passing a periodic assessment which tests the candidate's understanding of recent developments within the waste industry.

Candidates have two years in which to pass an assessment. Failure to do so within the deadline will result in loss of technical competence status. The continuing competence will apply to all including those previously 'deemed competent'. Other methods for demonstrating continuing competence may be approved as new technical competence schemes are developed.

Guidance on site attendance for technically competent managers is provided at the end of this section.

Please note that technical competence schemes do not apply to mining waste operations.

Waste acceptance

Typical permit condition or rule

(Typically, condition 2.3.2 on the permit)

Waste shall only be accepted if:

- it is of a type and quantity listed in Schedule X Table X1, X2 and so on; and
- it conforms to the description in the documentation supplied by the producer and holder.

How to comply

The following guidance applies if you only accept low risk non-hazardous waste such as municipal waste. If you accept higher risk waste, including any form of hazardous waste, you should ensure you meet the additional, more detailed standards in S5.06 for those aspects of waste pre-acceptance, acceptance and storage that are relevant to waste operations (see Part 3).

You should check wastes when they arrive and accept them only if your permit allows them and if they meet the description given in the waste transfer note or other documentation.[9]

The table will usually use the waste definitions given in the List Of Waste Regulations (known as the EWC codes). You must not accept any wastes not listed in your permit.

We may restrict permitted wastes by, for example, limiting the quantity received, stored or treated or their composition.

Your procedures for checking the wastes should include:

[9] If you transfer non-hazardous waste between your own sites and there is no change in ownership, we will expect the information given in other documentation and subsequently held on site as a record of those transactions to be of the same standard as that required for a duty of care waste transfer note. For hazardous wastes the notification, consignment, records and returns requirements of the Hazardous Waste Regulations must be met for such internal movements.

- the location where checking will be carried out
- the extent of visual checks and any sampling and analysis required.

Your procedures should be proportionate to the environmental risk caused if the waste is not as described. This may be because the whole load is something different or because the load is mostly what it should be, but contains a small proportion of some other material (commonly known as 'contraries'). You need to check all wastes because the presence of 'contraries' is a common cause of environmental incidents.

Despite these control measures, you may find 'contraries' in a consignment that has already been accepted onto site. You should be prepared for this. You should identify and quarantine the 'contraries' before sending them to an authorised site as soon as practicable. When you find 'contraries' you should investigate the cause. To stop it happening again, you might, for example, contact and work with the producer to prevent reoccurrence or send the 'contraries' back to the producer.

Where your procedures for checking the waste and the documentation identify waste that cannot be accepted onto site you should make a record of this. You must keep records of the waste received at the site, including the quantity, characteristics, origin, delivery date and the identity of the producer. Section 4 of the permit describes how to keep records.

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Emissions of substances not controlled by emission limits

Typical permit condition or rule

(Typically, condition 3.2.1 on the permit)

Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in table y below and in any approved emissions management plan, have been taken to prevent or, where that is not practicable, to minimise, those emissions.

The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan
- implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

How to comply

Fine dusts, fumes and volatile organic compounds can lead to serious health impacts. Scavenging animals, scavenging birds and other pests, including flies, can introduce substances into the environment that may spread disease. Similarly, emissions from waste or other materials stored on site can attract pests. Leaks to ground or water can have serious effects on water supplies and aquatic ecosystems. You need to prevent or minimise these, no matter how near or far people or other receptors may be.

Other pollutants, such as coarse dust, mud and litter may be only a localised

nuisance. However, you do not have the right to cause pollution or offence outside your site due to your activities. Your neighbours have a right to expect that your activities will not detract from their quality of life. They have a right to expect that their environment will be free from emissions caused by your activities either on a continuous basis or at frequent intervals.

While there may be no problem at the moment, if circumstances change, for example development occurs around your site such that your activities then affect people outside the site, you will have to take action to prevent or minimise those problems.

The following are typical measures that you should take, where appropriate.

Emissions to surface water and groundwater

For surfacing, you should:

- make sure that surfacing and containment or drainage facilities are adequate for all operational areas, taking into consideration collection capacities, surface thicknesses, strength/reinforcement, falls, materials of construction, permeability, resistance to chemical attack, and inspection and maintenance procedures
- have an inspection and maintenance programme for impervious surfaces and containment facilities
- unless the risk is negligible, have improvement plans in place where operational areas do not already have:
  - an impervious surface
  - spill containment kerbs
  - sealed construction joints
  - connection to a sealed drainage system.[10]

For detailed design standards on surfacing refer to the guidance in Part 3.

Dust, mud and litter

- carry out operations inside buildings
- avoid outdoor or uncovered stockpiles
- where you must use outdoor stockpiles, control them by means of sprays, binders, windbreaks, careful siting in relation to sensitive receptors, controlling the moisture content of the material delivered and orientation of long stockpiles in the direction of the prevailing wind
- design to minimise handling operations
- erect litter fences around the site so you can catch it
- enclose conveyors and minimise drops, or use pneumatic or screw conveying
- install filters to vents on silos, building extractors and conveying systems
- surface roadways
- plant grass or trees on open ground where appropriate (hydro-seeding can rapidly establish vegetation on waste tips, slag heaps or other apparently infertile ground)
- cover vehicles, skips and vessels
- have rigorous maintenance standards
- minimise points of access from the public highway
- make sure vehicles stay on paved areas
- regularly clean and dampen roadways and vehicle wheels
- use water-filled troughs to slow trucks, wash wheels and keep roadways damp
- clean spillages with vacuum cleaners rather than washing down

[10] A sealed drainage system is a drainage system with impermeable components which does not leak and which will ensure that no liquids will run off a surfaced area other than via the system. Except where they are lawfully discharged, all liquids entering the system should be collected in a sealed sump.

- avoid certain activities when there are high winds
- clear litter and mud at the end of each working day, unless it is impractical or unsafe to do so.

Fine particulate and fumes

Controls for fine particulate and fumes, particularly from combustion processes, are given in the appropriate activity-specific guidance (see Part 3).

Volatile organic compounds (VOCs)

- enclose open vessels and fit abatement equipment to vents
- install sealed transfer (vapour balance) systems
- use sub-surface filling via (anti-syphon) filling pipes extended to the bottom of the container
- use floating roof tanks and bladder roof tanks
- treat specific releases (by techniques such as adsorption or condensation)
- use tank vent systems that minimise breathing losses (e.g. the use of pressure/vacuum valves). Fit knock-out pots and appropriate abatement equipment where necessary
- inventory management
- reduce leakage from pipework or fluid transport systems
- use white paint, insulation and active temperature control to reduce the temperature in storage tanks.

Substances introduced into the environment by pests

- regular inspections by nominated personnel
- isolation and securing/removal of wastes that are attracting scavengers
- employing professional pest controllers, either directly or by contract
- effective scaring or other deterrent methods
- netting.

Odour

Typical conditions or rules

(Typically, condition 3.3.1 on the permit)

Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable, to minimise, the odour.

The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan
- implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

How to comply

If there is a significant possibility that odour from your activities may cause offence beyond your site boundary, you should have a written odour management plan. This should show what the sources and risk to receptors are, the measures you will employ and how you will respond to prevent or minimise the odour. H4 Odour guidance for operators describes how to do this and links to example odour management plans for various types of activity. You may need to update this plan with further measures as necessary to ensure that the condition continues to be met. **Activities for which odour is a key issue and should always have an odour management plan, are listed in Part 3.**

You do not have the right to cause odours outside your site due to your activities. While for some activities it may not be practicable to avoid all odour, your neighbours have a right to expect that your activities will not detract from their quality of life.

It is up to you to take all reasonable steps/all appropriate measures to prevent such emissions, or where that is not practical, to minimise them. Unless already specified in your permit, the measures you decide to use will depend on your industry sector/regime and your individual circumstances.

While there may be no problem at the moment, if circumstances change, for example development occurs around your site such that your activities then affect people outside the site, you will have to take action to prevent or minimise those problems.

There are a number of options available to control odour. We will expect you to balance the costs and environmental benefits. The measures you decide to use will have to meet the objective of the condition.

Appropriate measures to reduce odour problems include:

- managing the receipt, storage and handling of the materials, for example by choosing raw materials that are less likely to cause odour problems and cutting the quantities and storage times of biodegradable materials
- avoiding operations that give rise to smells, for example avoiding conditions which encourage anaerobic breakdown and reducing temperatures and exposed surface areas
- enclosing smelly materials and activities in a building or vessels
- engaging with your neighbours and responding to their concerns or complaints
- reducing or stopping your activities that are causing the odour until either the circumstances have changed or other appropriate measures have been put in place to allow the operations to re-commence without causing offence.

These and other measures are described in H4 – Odour guidance for operators.

We may impose the condition ‘The emission from Point x shall not exceed Y odour units’. This sets a quantitative limit on an odorous emission from a specified source. It does not remove your responsibility for controlling odours from all other sources.

Noise & vibration

Typical permit condition or rule

(Typically, condition 3.4.1 on the permit)

Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable, to minimise, the noise and vibration; or

The (rating) level of noise emitted from the site (during normal operations/annual shutdown and maintenance) shall not exceed (X) dB, expressed as an LAeqT, between (hhmm) and (hhmm) Mon to Fri and (Y) dB at any other time, as measured or assessed on the (specified boundary/boundaries/location) of the site at (locations x,y,z) on plan reference Y attached to this permit. The locations shall be chosen and the measurements and assessment made according to BS4142:1997.

The provision for management plans is the same as for odour.

How to comply

If you are likely to cause any significant noise beyond your site boundary, you should have a written noise management plan. This should show what the sources and the risks to receptors are, the measures you will employ and how you will respond to prevent or minimise the noise. You may need to update this plan with further measures to ensure that the condition continues to be met.

The situation, and your responsibilities for controlling noise are very similar to those for controlling odour (see the previous section).

Appropriate measures to reduce/control noise include:

- monitoring noise levels at different places and times to find where the problem is coming from
- maintaining equipment specifically to reduce noise levels, e.g. balancing fans and fixing loose covers
- enclosure or abatement – e.g. acoustic enclosures, silencers, keeping doors and other openings in buildings closed.
- timing – e.g. avoiding noisy work during evenings and weekends
- siting away from sensitive receptors – e.g. of delivery or vehicle routes or noisy plant
- switching off plant, vehicles and ventilation units when not in use
- reducing or stopping your activities that are causing the noise until either the circumstances have changed or other appropriate measures have been put in place to allow the operations to re-commence without significant noise.

Guidance note H3 Noise and some of the activity-specific guidance notes give more guidance on noise assessment and control and how to draw up a noise management plan (see Part 3).

Where we place a numerical limit, it applies only at the designated measurement points. It does not remove your responsibility for controlling noise from your activities at all other points outside the site boundary.

As a guide, annoyance becomes more likely where the resulting field rating level (LAR,TR) exceeds 50 dB by day and a facade rating level exceeds 45 dB by night (23:00 to 07:00). Where very low background levels prevail, site noise levels should not be significantly above the

background and, if practicable, should be well below. If you are in an area covered by the Environmental Noise Regulations 2006, site noise levels should, as far as practicable, be less than an Lden value of 55 dB(A) or an Lnight value of 50 dB(A).

Sometimes ambient noise increases over time (creeping background). This increases the environmental value of noise abatement measures. Where this has been identified in discussions with ourselves or previously with the local authority, you must consider it when planning noise control techniques to maintain acceptable noise levels.

You may need to carry out noise surveys, measurements, investigations (e.g. on sound power levels of individual items of plant) or modelling to resolve more difficult problems.

It is sometimes necessary to carry out temporary works, such as alterations or major maintenance programmes, which will cause more noise than normal. You should notify us, and your neighbours, if you intend to do this. You should take reasonable steps to minimise the duration and impact of any such works, by for example carrying out the work only between the hours of 09.00 and 17.00 Monday to Friday excluding Bank Holidays.

Records

Typical permit condition or rule

(Typically, condition 4.1.1 on the permit)

All records required to be made by this permit shall:

- be legible
- be made as soon as reasonably practicable.

If amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made or in the case of the following records until permit surrender:

- off-site environmental effects
- matters which affect the condition of land and groundwater.

How to comply

Keeping records for six years makes sure that there will be sufficient information if we do have to investigate an environmental incident, while avoiding an undue burden on operators. Many regulatory regimes require us to carry out a formal periodic review of all permits, usually once every four to eight years. Keeping records for six years will ensure that there are sufficient records to do so.

You must keep records of any off-site environmental effects including pollution incidents that caused, or are alleged to have caused, harm or health effects until you surrender the site. This enables us, in the future, to investigate any cumulative effects of the activities.

You should keep records related to the condition of land and groundwater until you surrender the site. We expect you to keep all records that demonstrate that emissions to land from your activities have

not caused any deterioration if your waste operations do not involve the permanent deposit of waste. The records relate to the initial state of the site. To demonstrate that there has been no deterioration we will expect you to know what this initial state is. The H5 Site Condition Report Guidance provides advice that will enable you to make sure that all appropriate records are kept (see Part 3). We are developing equivalent guidance on the surrender of permits for the permanent deposit of waste.

The records you will need to keep until permit surrender will include the design, construction, inspection, monitoring, maintenance and failure records for pollution prevention measures, such as surfacing and drainage. You will also need to record spills and incidents, what you do to investigate and make good those incidents and any action taken when an Environment Agency officer notes any relevant non-conformances or failures.

Duty of care records only need to be kept for 2 years.

If you manage hazardous waste you will also need to comply with the additional site record and return requirements arising from Part 7 of the Hazardous Waste Regulations.

Records may be held electronically. Times should be recorded using the 24-hour clock.

Reporting/ Notification

Typical permit condition (does not apply to standard rules)

(Typically, condition 4.3.5 on the permit)

Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- the Environment Agency shall be notified at least 14 days before making the change; and
- the notification shall contain a description of the proposed change in operation.

How to comply

Change in operation

If you want to change your operation, but the change is not contrary to your permit conditions, or would require you to submit an application such as a partial transfer or surrender of your permit, then you do not have to vary your permit.

When the proposed change in operation falls within the criteria set out in the condition, and explained below, you must notify us at least 14 days in advance of making the proposed change and the notification must contain a description of the change.

A change in the **nature** of the activities is a change in what is being done (e.g. a change in feedstock or by products and so on).

A change in the **functioning** of the activities is a change in how the activities are carried out (e.g. moving to a batch treatment process from a continuous treatment process).

An **extension** is a change in size affecting the capacity of the facility to carry out the activities (e.g. removing treatment or storage capacity at the facility).

Site attendance guide for technically competent managers

This guidance has been updated to reflect changes to our OPRA system. It applies to operators using the existing Wamitab scheme, operators who have passed an Environment Agency assessment or any future scheme that refers to our guidance.

Minimum site attendance standards for technically competent managers are shown in the table below.

You must meet these standards if:

- you have been operating for less than six months
- you have been carrying out an activity for less than six months
- you do not have a settled management system i.e. a lack of accredited, written and adhered to procedures
- you have not agreed alternative minimum attendance with us in writing
- your Compliance Rating score is over 16 in any quarter, which shows that activities appear to be running beyond the control of the management.

The Compliance Rating score is calculated by the number and category of non-compliances assessed by our Compliance Classification Scheme. A score of 16 or more in any quarter equates to more than 4 category 3 breaches or a category 2 non-compliance.

When we consider agreeing an alternative standard of attendance with you we will look at the activity authorised and carried out on site, the waste types you handle, and past compliance record.

Where the minimum site attendance standard is met for a particular facility we will view this as evidence that there is adequate management control unless the compliance record indicates otherwise. If the minimum attendance time is insufficient to ensure compliance, the technically competent manager should bring this to the attention of the operator and record the fact in the site diary.

The technically competent manager must be in a position to direct activities on the site. This will be reflected in the operator's management system and operational procedures.

There must be a minimum site attendance of one hour a week on all operational sites. A week starts on Sunday at midnight and ends on the following Sunday at midnight. We consider that a site is operational when it is either accepting or removing waste, or undertaking any process or activity involving waste that should be under the day-to-day control of a technically competent manager.

We require a minimum attendance of 1 hour per week for in-house facilities taking only their own waste. If the facility is non-operational i.e. zero operational hours, site attendance is not required.

You must keep records of weekly operational hours and site attendance i.e. start and finish times of operations and arrival and departure times of the technically competent manager. Record this information in a site diary or log. The records must be available for us to inspect.

We apply a cap of 48 hours per week for site attendance for all facility types. We would not normally expect the technically competent manager to provide more than 48 hours towards the provision of technically competent management in line with the European Working Time Directive on working weeks hours.

If you operate two or more separately authorised facilities which share a common boundary, the site attendance requirements are those for the facility with the higher attendance percentage. The appropriate technical competence qualification will be necessary for each type of facility. For example where there is a separately authorised civic amenity site on a landfill site, the attendance requirements of the landfill will satisfy the attendance requirements for both facilities by a technically competent manager holding both the relevant awards.

For landfill sites in post closure phase, where waste input has been completed and the only continuing authorised activities are likely to be the management of surface water and stability, you do not need a technically competent manager to attend the site to demonstrate technical competent management. Consequently one technically competent manager can demonstrate technically competent management for any number of closed sites.

Calculating attendance at waste sites

Add up Attendance Points for Complexity, Location and Emissions Bands.

Opra attribute bands				
Attribute	**Low**	**Med**	**High**	**Highest**
Complexity Band	A	BC	D	E and double letters
Location Band	A	BC	D	E
Emissions Band	A	B	C	DE
Attendance Points	1	2	3	4

Total attendance points	**Attendance**
3	5%
4	10%
5	15%
6	20%
7	25%
8	30%
9	35%
10	40%
11	45%
12	50%
Over 12	55%

If your OPRA profile details different waste activities (rather than multiple plant), include a score for each complexity band.

For tier 2 permits, we expect a minimum attendance of 20% unless you agree an alternative with us.

3. – Requirements for mining waste operations

3. Requirements for mining waste operations

3. Requirements for mining waste operations

General Management

Typical permit condition or rule
(Typically, condition 1.1.1 on the permit)

The operator shall manage and operate the activities:
(a)in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
(b)using sufficient competent persons and resources.

Typical permit condition or rule

(Typically, condition 1.1.2 on the permit)

Records demonstrating compliance with condition 1.1.1 shall be maintained.

Typical permit condition or rule

(Typically, condition 1.1.3 on the permit)

Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

How to comply

Incidents and non-conformances

You must be able to:

- detect abnormal operation and investigate the causes
- assess the information and decide what to do
- in the short-term, get back to normal operation
- in the long-term take steps to make sure the problem doesn't happen again
- where appropriate, make sure that the public would know what to do if a problem arises. (You are responsible for minimising the environmental impact of your activities and for responding to the concerns of the local community)
- have a complaints system and do whatever is necessary to prevent, or where that is not possible to minimise, the causes.

Sufficient competent persons

You must have enough competent staff to manage and operate your activities without causing pollution.

If your mining waste operation includes a Category A mining waste facility, a mining waste facility for hazardous waste, or non-hazardous non-inert waste, you must demonstrate that you have appropriate technical management in place for the facility and that technical development and training of staff are provided.

However, the following training requirements do not apply to mining waste facilities for inert waste, unpolluted soils, non-hazardous waste generated from the prospecting of mineral resources (except oil and evaporates other than gypsum and anhydrite) or waste resulting from the extraction, treatment and storage of peat and mining waste operations that do not include a facility.

Staff should have clearly defined roles and responsibilities. You should write down the skills required for each post and keep records of how each individual in that post has gained those skills and how they are kept up to date with, for example, refresher training. Where appropriate, you should keep written instructions for the work as well. We will refer to these records and instructions if we need to investigate an incident. You can demonstrate competence in various ways:

- academic qualifications e.g. a relevant degree
- professional qualifications e.g. membership of an appropriate institution
- Vocational qualifications e.g. NVQs.
- external training qualification/certification e.g. certificate of technical competence
- attendance at external or in-house training courses
- those with approved training to cascade that training to other staff.
- mentoring as part of "on the job" training
- experience (as long as there is evidence that it is kept up to date).

You should also ensure that any contractors have the knowledge and skills and resources they need.

Permit surrender and closure

When you come to apply to surrender your permit, you will need to be able to show that you have taken the necessary measures to avoid any pollution risk resulting from your activities and that the site has been returned to a satisfactory state if you aim to restore the site to the

condition before the mining waste operation started (paragraphs 7.26 to 7.33 of the Defra and Welsh Assembly Government Environmental Permitting Guidance explain what 'satisfactory state' means).

For operations not involving the permanent deposit of extractive wastes, this means that your management system will need to record details of how the land under the site was thoroughly protected at all times between the date the permit was issued (or when operations started), until the end of operations under the permit. If the land was contaminated before your permit began, we strongly advise that you to record details of this contamination. You should also record how you dealt with any contamination that did occur.

For operations that involve permanent deposits of extractive wastes, it is not possible to return the site to the state that existed before the operation started. Your records should focus on waste characterisation, which show that the extractive waste was inert or sufficiently low risk; or to demonstrate that emissions are shown to meet the risk-based closure or completion criteria for your operation.

We will consider all of the above records when you apply to surrender your permit. During compliance checks we will check the records are being collated properly. Section 4, Records and the H5 Site Condition Report Guidance (see Part 3) give further information. We are also developing our technical guidance on the surrender of permits for the permanent deposit of extractive wastes.

Emissions of substances not controlled by emission limits

Typical permit condition or rule

(Typically, condition 3.2.1 on the permit)

Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in table y below and in any approved emissions management plan, have been taken to prevent or, where that is not practicable, to minimise, those emissions.

The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan
- implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

How to comply

Fine dusts can lead to serious health impacts. Leaks to ground or water can have serious effects on water supplies and aquatic ecosystems. You need to prevent or minimise these, no matter how near or far people or other receptors may be.

Other pollutants, such as coarse dust, mud and litter may be only a localised nuisance. However, you do not have the right to cause pollution or offence outside your site due to your activities. Your neighbours have a right to expect that your activities will not detract from their quality

of life. They have a right to expect that their environment will be free from emissions caused by your activities either on a continuous basis or at frequent intervals.

While there may be no problem at the moment, if circumstances change, for example development occurs around your site such that your activities then affect people outside the site, you will have to take action to prevent or minimise those problems.

The following are typical measures that you should take, where appropriate.

Emissions to surface water and groundwater

For surfacing, you should:

- make sure that surfacing and containment or drainage facilities are adequate for all operational areas, taking into consideration collection capacities, surface thicknesses, strength/reinforcement, falls, materials of construction, permeability, resistance to chemical attack, and inspection and maintenance procedures
- have an inspection and maintenance programme for impervious surfaces and containment facilities
- unless the risk is negligible, have improvement plans in place where operational areas do not already have:
  - an impervious surface
  - spill containment kerbs
  - sealed construction joints
  - connection to a sealed drainage system.[11]

[11] A sealed drainage system is a drainage system with impermeable components which does not leak and which will ensure that no liquids will run off a surfaced area other than via the system. Except where they are lawfully discharged, all liquids entering the system should be collected in a sealed sump.

For detailed design standards on surfacing refer to the guidance in Part 3.

Dust and mud

- carry out operations inside buildings
- where you use outdoor stockpiles, control them by means of sprays, binders, windbreaks, careful siting in relation to sensitive receptors, controlling the moisture content of the material delivered and orientation of long stockpiles in the direction of the prevailing wind
- design to minimise handling operations
- enclose conveyors and minimise drops, or use pneumatic or screw conveying
- install filters to vents on silos, building extractors and conveying systems
- surface roadways
- plant grass or trees on open ground where appropriate (hydro-seeding can rapidly establish vegetation on waste tips, slag heaps or other apparently infertile ground)
- cover vehicles and vessels
- have rigorous maintenance standards.
- minimise points of access from the public highway
- make sure vehicles stay on paved areas
- regularly clean and dampen roadways and vehicle wheels
- use water-filled troughs to slow trucks, wash wheels and keep roadways damp
- clean spillages with vacuum cleaners rather than washing down
- avoid certain activities when there are high winds
- clear mud at the end of each working day, unless it is impractical or unsafe to do so.

Odour

Typical conditions or rules

(Typically, condition 3.3.1 on the permit)

Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable, to minimise, the odour.

The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan
- implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

How to comply

If there is a significant possibility that odour from your activities may cause offence beyond your site boundary, you should have a written odour management plan. This should show what the sources and risk to receptors are, the measures you will employ and how you will respond to prevent or minimise the odour. H4 Odour guidance for operators describes how to do this and links to example odour management plans for various types of activity. You may need to update this plan with further measures as necessary to ensure that the condition continues to be met.

You do not have the right to cause odours outside your site due to your activities. While for some activities it may not be practicable to avoid all odour, your neighbours have a right to expect that your activities will not detract from their quality of life.

It is up to you to take all reasonable steps/all appropriate measures to prevent such emissions, or where that is not practical, to minimise them. Unless already specified in your permit, the measures you decide to use will depend on your industry sector/regime and your individual circumstances.

While there may be no problem at the moment, if circumstances change, for example development occurs around your site such that your activities then affect people outside the site, you will have to take action to prevent or minimise those problems.

There are a number of options available to control odour. We will expect you to balance the costs and environmental benefits. The measures you decide to use will have to meet the objective of the condition.

Appropriate measures to reduce odour problems include:

- managing the receipt, storage and handling of the materials, for example by choosing raw materials that are less likely to cause odour problems and cutting the quantities and storage times of biodegradable materials
- avoiding operations that give rise to smells, for example avoiding conditions which encourage anaerobic breakdown and reducing temperatures and exposed surface areas

- enclosing smelly materials and activities in a building or vessels
- engaging with your neighbours and responding to their concerns or complaints
- reducing or stopping your activities that are causing the odour until either the circumstances have changed or other appropriate measures have been put in place to allow the operations to re-commence without causing offence.

These and other measures are described in H4 – Odour guidance for operators.

We may impose the condition 'The emission from Point x shall not exceed Y odour units'. This sets a quantitative limit on an odorous emission from a specified source. It does not remove your responsibility for controlling odours from all other sources.

Noise and vibration

Typical permit condition or rule

(Typically, condition 3.4.1 on the permit)

Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable, to minimise, the noise and vibration; or

The (rating) level of noise emitted from the site (during normal operations/annual shutdown and maintenance) shall not exceed (X) dB, expressed as an LAeqT, between (hhmm) and (hhmm) Mon to Fri and (Y) dB at any other time, as measured or assessed on the (specified boundary/boundaries/location) of the site at (locations x,y,z) on plan reference Y attached to this permit. The locations shall be chosen and the measurements and assessment made according to BS4142:1997.

The provision for management plans is the same as for odour.

How to comply

If you are likely to cause any significant noise beyond your site boundary, you should have a written noise management plan. This should show what the sources and the risks to receptors are, the measures you will employ and how you will respond to prevent or minimise the noise. You may need to update this plan with further measures to ensure that the condition continues to be met.

The situation, and your responsibilities for controlling noise are very similar to those for controlling odour (see the previous section).

Appropriate measures to reduce/control noise include:

- monitoring noise levels at different places and times to find where the problem is coming from
- maintaining equipment specifically to reduce noise levels, e.g. balancing fans and fixing loose covers
- enclosure or abatement – e.g. acoustic enclosures, silencers, keeping doors and other openings in buildings closed
- timing – e.g. avoiding noisy work during evenings and weekends
- siting away from sensitive receptors – e.g. of delivery or vehicle routes or noisy plant

- switching off plant, vehicles and ventilation units when not in use
- reducing or stopping your activities that are causing the noise until either the circumstances have changed or other appropriate measures have been put in place to allow the operations to re-commence without significant noise.

Guidance note H3 Noise and some of the activity-specific guidance notes give more guidance on noise assessment and control and how to draw up a noise management plan (see Part 3).

Where we place a numerical limit, it applies only at the designated measurement points. It does not remove your responsibility for controlling noise from your activities at all other points outside the site boundary.

As a guide, annoyance becomes more likely where the resulting field rating level (LAR,TR) exceeds 50 dB by day and a facade rating level exceeds 45 dB by night (23:00 to 07:00). Where very low background levels prevail, site noise levels should not be significantly above the background and, if practicable, should be well below. If you are in an area covered by the Environmental Noise Regulations 2006, site noise levels should, as far as practicable, be less than an Lden value of 55 dB(A) or an Lnight value of 50 dB(A).

Sometimes ambient noise increases over time (creeping background). This increases the environmental value of noise abatement measures. Where this has been identified in discussions with ourselves or previously with the local authority, you must consider it when planning noise control techniques to maintain acceptable noise levels.

You may need to carry out noise surveys, measurements, investigations (e.g. on sound power levels of individual items of plant) or modelling to resolve more difficult problems.

It is sometimes necessary to carry out temporary works, such as alterations or major maintenance programmes, which will cause more noise than normal. You should notify us, and your neighbours, if you intend to do this. You should take reasonable steps to minimise the duration and impact of any such works, by for example carrying out the work only between the hours of 09.00 and 17.00 Monday to Friday excluding Bank Holidays.

Records

Typical permit condition or rule

(Typically, condition 4.1.1 on the permit)

All records required to be made by this permit shall:

- be legible
- be made as soon as reasonably practicable
- if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made or in the case of the following records until permit surrender:
  - off-site environmental effects
  - matters which affect the condition of land and groundwater.

How to comply

Keeping records for six years makes sure that there will be sufficient information if we do have to investigate an environmental incident, while avoiding an undue burden on operators. Many regulatory regimes require us to carry out a formal periodic review of all permits, usually once every four to eight years. Keeping records for six years will ensure that there are sufficient records to do so.

You must keep records of any off-site environmental effects including pollution incidents that caused, or are alleged to have caused, harm or health effects until you surrender the site. This enables us, in the future, to investigate any cumulative effects of the activities.

You should keep records related to the condition of land and groundwater until you surrender the site. If your operation does not involve the permanent deposit of extractive waste, your aim is to return the site to its original condition. We expect you to keep all records that demonstrate that emissions to land from your activities have not caused any deterioration. The records relate to the initial state of the site. To demonstrate that there has been no deterioration we will expect you to know what this initial state is. The H5 Site Condition Report Guidance provides advice that will enable you to make sure that all appropriate records are kept (see Part 3). We are developing equivalent guidance on the surrender of permits for the permanent deposit of extractive wastes.

The records you will need to keep until permit surrender will include the design, construction, inspection, monitoring, maintenance and failure records for pollution prevention measures, such as containment and drainage. You will also need to record spills and incidents, what you do to investigate and make good those incidents and any action taken when an Environment Agency officer notes any relevant non-conformances or failures.

Records may be held electronically. Times should be recorded using the 24-hour clock.

4. - Requirements for water discharge activities and groundwater activities involving discharge of sewage or trade effluent

4. Requirements for water discharge activities and groundwater activities involving discharge of sewage or trade effluent

4. Requirements for water discharge activities and groundwater activities involving discharge of sewage or trade effluent

General Management

Typical permit condition or rule
(Typically, condition 1.1.1 on the permit)

The operator shall manage and operate the activities:
(a)in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints; and
(b)using sufficient competent persons and resources.

Typical permit condition or rule
(Typically, condition 1.1.2 on the permit)

Records demonstrating compliance with condition 1.1.1 shall be maintained.

Typical permit condition or rule
(Typically, condition 1.1.3 on the permit)

Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

How to comply

Water discharge and groundwater activities involving sewage or trade effluents can range from large scale operations such as municipal sewage works serving large cities, through to smaller sewage or trade effluent discharges serving individuals, small communities or businesses. The size of the activity must be taken into account when you are setting up a management system and when we are assessing it for compliance with the requirements of this condition.

For larger organisations it may not be practicable for all relevant aspects of their management system to be held together in one document. In such cases it may be appropriate to have a sign post document to say where each relevant part can be found.

The management system condition requires the operator to manage the site to minimise the risk of pollution. However, if the permit specifies an emission limit or a treatment process, the operator is not required to achieve a higher standard or change the treatment process from that specified.

Site security

Any need for security and signage at sites must take account of the:

- environmental risk that could follow a security breach or accident
- practicalities of providing security measures and display notices at sites, and
- scale of the operation.

For example, many storm water overflow sites will be underground and have restricted access in built up urban areas where fencing and signage is impractical.

The discharge may also be remote from the main body of the site. Small private rural sewage treatment plants may be within the boundary of houses or businesses or remote and of low environmental risk and so will not require signage or fencing.

Many large or high impact sites such as municipal sewage works already show the name of the operator, the site and an emergency contact number at the entrance to the site. For existing water discharge and groundwater activities there will be no need for existing signs to be replaced or additional information to be added to them.

Sufficient persons who are suitably competent

The extent of any staff cover, competence and available resources required will depend on the size of the activity being operated and on the size of the operator. For example, large organisations that operate many sites will be expected to have comprehensive training plans and records demonstrating the suitable competence of staff with relevant responsibilities. Whereas operators of small sewage treatment plants may rely on maintenance contracts with treatment plant suppliers, for example, rather than employ the competent staff themselves.

Display your permit

It is not always practical to have the permit visible at the site of the activity. A copy of the ***permit*** or ***standard rules*** must be readily available to anyone responsible for the operation of the activity. For large organisations with many sites this could be at one or more central locations with remote access via a computer network.

2. Operations

Permitted activities

Typical permit condition or rule

(Typically, condition 2.1 on the permit)

The operator is only authorised to carry out the activities specified in Schedule 1 table S1.1 (the "activities").

Typical permit condition or rule

(Typically, condition 2.3.1 on the permit)

The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in Schedule 1 table S1.2 unless otherwise agreed in writing by the Environment Agency.

If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in Schedule 1, table S1.2 or otherwise required under this permit and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

How to comply

Table S1.1 specifies the water discharge activities that the operator is permitted to carry out. It may also specify limits to those activities.

Table S1.2 allows complex treatment processes or discharge arrangements to be described by the applicant and incorporated into the permit without the need to develop and use complex bespoke permit conditions. Examples of such scenarios include:

- discharges from complex storm sewage systems using real time control
- discharges to tidal environments using diffusers
- an effluent discharging to more than one location depending on complex circumstances.

3. Emissions and monitoring

Point source emissions to air, water & land

Typical permit condition or rule

(Typically, condition 3.1.1 on the permit)

There shall be no point source emissions to air, water or land, except from the sources and emission points listed in Schedule x.

The limits given in Schedule x, tables y.y, and z.z. shall not be exceeded.

How to comply

Your permit will specify emission limit values and the compliance method that will be used to assess compliance with the limit.

For storm sewage discharges emission limits may include the flow of storm sewage which must be exceeded before a discharge can occur, screening arrangements and storm storage capacity. These will be included in a separate table.

The following is an example of an additional condition for a discharge into surface waters:

Typical permit condition or rule

(Typically, condition 3.X on the permit)

[Unless the concentration is specifically regulated by a numeric emission limit in table X] the concentration of a List I Substance (as defined in the Dangerous Substances Directive 2006/11/EC) in the discharge shall not exceed that specified for that substance in the "List 1 General Standards" in Annex X of this permit.

How to comply

Where the discharge is liable to contain a List 1 substance, we will set a numeric emission limit in the permit if the substance is present at environmentally significant levels. If we do not set an emission limit in the permit in table S3.1 because the concentration is low, we must specify a maximum limit for the substance. We do this through the 'List 1 General Standards' condition. This condition refers to List 1 substance limits that the discharge must not exceed. We would only monitor the discharge for these substances if we have reason to believe that the limit may be exceeded. If the discharge is liable to exceed one of these limits then it has failed one of our tests of significance and we must then set a specific emission limit for that substance in table S3.1. The substance would then be subject to the same requirements for monitoring and compliance as for other substances with emission limits in table S3.1.

Typical permit condition or rule

(Typically, condition 3.X on the permit)

Unless the concentration is specifically regulated by [a numeric emission limit in table X], the discharge shall not contain a concentration of any List II Substance (as defined in the Dangerous Substances Directive 2006/11/EC) such as to cause any of the relevant Environmental Quality Standards set out in DoE Circular 007/89, SI 1997 No2560 and SI 1998 No389 to be exceeded in the receiving water.

How to comply

Discharges to surface water must not cause or contribute to any List 2 environmental quality standard (EQS) being exceeded.

The Dangerous Substances Directive, which applies only to surface waters, requires that where a discharge is liable to contain List 2 substances, then these substances must be prior authorised. If we do not set an emission limit in the permit in table S3.1 because the concentration is low, this condition must also be included in the permit. The condition requires that the discharge does not result in any failure of a List 2 Environmental Quality Standard (EQS). The 'General Management', 'Fugitive emission' and the 'List 2 EQS' conditions will provide adequate control of a List 2 substance where a numeric emission limit has not been included in table S3.1.

Other substances which are not List 1 or List 2 substances can be harmful to the aquatic environment and they too may have EQSs. We will specify emission limits for these substances where they may have a significant impact on the receiving surface waters.

Emissions of substances not controlled by emission limits

Typical permit condition or rule

(Typically, condition 3.2.1 on the permit)

Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in table y below and in any approved emissions management plan, have been taken to prevent or, where that is not practicable, to minimise, those emissions.

The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan
- implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

How to comply

Substances within the permitted discharge that do not have specific emission limits are considered as emissions of substances not controlled by emission limits.

For water discharge activities, if there are substances in your discharge that could result in a significant environmental impact as described in and assessed using H1 guidance annex (e) surface water discharges (complex) we will specify emission limits, unless we agree that they can be adequately controlled by using the emissions of substances not controlled by emission limits condition and any necessary agreed emissions management plan. Similarly, specific emission limits and / or the above conditions will apply to groundwater activities if your discharge could result in the input into groundwater of hazardous substances or non-hazardous pollutants as described in H1 guidance annex (j).

Where a discharge is liable to contain substances which do not have specific limits the operator must ensure that appropriate measures, as defined in H1 guidance, are in place to prevent pollution. For water discharge and groundwater activities, pollution is defined in the Environmental Permitting Regulations as:

> "pollution", in relation to a water discharge activity or groundwater activity, means the direct or indirect introduction, as a result of human activity, of substances or heat into the air, water or land which may—
>
> (a) be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems,
>
> (b) result in damage to material property, or
>
> (c) impair or interfere with amenities and other legitimate uses of the environment.

Emissions management plans

For water discharge activities, emissions management plans could be used in the following example circumstances:

- polymer dosing is being used to enhance a treatment process. The operator would produce an emissions management plan to specify how they will use the dosing agent whilst ensuring that it does not result in pollution
- fish farm management plans covering the occasional use of prophylactic chemicals.

Emissions of substances not controlled by emission limits (continued)

For groundwater activities:

Typical permit condition or rule (Typically, condition 3.X on the permit) Appropriate measures shall be taken to prevent the input of hazardous substances to groundwater by avoiding the entry of those substances into groundwater and by avoiding any significant increase in their concentration in groundwater.

How to comply

The Groundwater Daughter Directive (2006/118/EC) requires "all necessary measures" to prevent and limit the input to groundwater of hazardous substances and non-hazardous pollutants. This is described in detail in our H1 Guidance Annex (j) which considers the extent to which measures also need to be reasonable. Provided this guidance is followed, this will satisfy the "appropriate measures" required by the above condition.

Monitoring

Typical permit condition or rule

(Typically, condition 3.3.1 to 3.3.4 on the permit)

The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake monitoring specified in the following tables in Schedule x to this permit:

- point source emissions specified in tables Sxx, Sxx and Sxx
- surface water or groundwater specified in table Sxx
- noise specified in table Sxx
- ambient air monitoring specified in table Sxx
- process monitoring specified in table Sxx
- land specified in table Sxx.

The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

How to comply

Your permit will specify what if anything you will need to monitor and how often.

We introduced Operator Self Monitoring (OSM) in 2009 requiring the ten major water companies to monitor their own discharges for substances with permit emission limits. We are considering how to expand OSM to other operators and further guidance will be provided as it becomes available.

Unless operators have been required to monitor their own discharges in the permit,

we will retain the responsibility for monitoring them.

We have the responsibility for monitoring surface water and groundwater quality, however in some exceptional circumstances it may still be necessary for an operator to carry out some surface water or groundwater environmental impact monitoring.

If you operate a groundwater activity and your permit requires you to install monitoring boreholes these must be completed in a manner that prevents contamination from the surface and as far as practicable made secure from interference or accidental damage. You must restore or replace any monitoring borehole that becomes inaccessible at the surface or blocked or ceases to function.

Reporting/Notification

Typical permit condition or rule

(Typically, condition 4.3 on the permit)

The Environment Agency shall be notified without delay following

the detection of:

- any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution
- the breach of a limit specified in the permit
- any significant adverse environmental and health effects.

Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in Schedule xx to this permit within the time period specified in that schedule.

How to comply

For discharges subject to ultra violet disinfection, flow measurement, operator self monitoring or UWWTD self monitoring we have specified how notifications of when limits are exceeded and failures must be made to us and how soon, see technical guidance for water discharge activities referred to in Part 3 of this document.

We expect operators to notify us as soon as practicable whenever a discharge to surface water or ground / groundwater occurs from a permitted facility which is causing or may cause significant pollution.

This includes all discharges from storm sewage overflows caused by a blockage or other equipment failure, but not in the case of the permitted operation of a storm overflow caused by wet weather.

The following information must be provided to the Environment Agency in the event of a significant pollution incident from a regulated site as soon as reasonably practicable, this will normally be within 24 hours of the operator becoming aware of the incident;

- the permit number
- the name of the operator
- the date and time of the occurrence
- the name of the facility

- location of the facility and where the discharge to the environment occurred, including the name of the receiving water where applicable
- what was released to the environment, for example untreated sewage
- an estimate of how much was released and/or for how long
- reason for the release if known at this time
- the time the release ended if known at this time.

In the event of equipment failure or malfunction which does not result in a release to the environment we would not normally expect to be notified except where the impact could have been severe, or the future operation of the facility is compromised and there is a significantly increased risk of a severe impact.

Reporting/Notification

Typical permit condition (does not apply to standard rules)

(Typically, condition 4.3.5 on the permit)

Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- The Environment Agency shall be notified at least 14 days before making the change; and
- The notification shall contain a description of the proposed change in operation.

How to comply

Change in operation

If you want to change your operation, but the change is not contrary to your permit conditions, then you do not have to vary your permit.

When the proposed change in operation falls within the criteria set out in the condition, and explained below, you must notify us at least 14 days in advance of making the proposed change and the notification must contain a description of the change.

- a change in the **nature** of the activities is a change in what is being done (e.g. a new trade effluent input of a dangerous substance into the sewerage network upstream of a water discharge activity)
- a change in the **functioning** of the activities is a change in how the activities are carried out (e.g. moving to a batch treatment process from a continuous treatment process)
- an **extension** is a change in size affecting the capacity of the facility to carry out the activities (e.g. removing treatment or storage capacity at the facility).

5. - Requirements for groundwater activities – permitted discharges containing hazardous substances and non-hazardous pollutants for waste sheep dip and/or other pesticides and pesticides washings

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The following guidance applies if you discharge or intend to discharge hazardous substances (as defined in Schedule 22, Part 1, Section 4 of the Environmental Permitting Regulations 2010) or non-hazardous pollutants (as defined in Schedule 22, Part 1, Section 5 of the above Regulations)

A function of the Environmental Permitting Regulations 2010 is to protect groundwater (water in the ground below the water table) from pollution caused by carelessly managing or discharging potentially harmful and polluting substances. With this in mind, the Regulations enforce the European Directives:

- the protection of groundwater against pollution caused by certain dangerous substances (80/68/EEC)
- establishing a framework for community action in the field of water policy (2000/60/EC); and
- the protection of groundwater against pollution and deterioration (2006/118/EC).

Certain substances must be prevented from entering groundwater, and the input of others must be limited so as to avoid pollution.

- **hazardous substances** are the most harmful and must be prevented from entering into groundwater
- **non-hazardous pollutants** are less harmful but can cause pollution if their input or discharge into groundwater occurs in an uncontrolled way causing concentrations to rise above acceptable levels.

If you carry out an activity that does not involve a deliberate discharge to ground / groundwater, (i.e. you manufacture, handle and/or store hazardous substances or non-hazardous pollutants, but where there may be unintentional releases to ground / groundwater) you generally do not require a groundwater activities permit. However, you should adhere to any relevant Groundwater Protection Codes of Good Practice to ensure groundwater is protected.

Groundwater Protection Codes of Good Practice need to be considered as part of the management system for your site. These Codes are listed in Part 3 of this guidance.

Groundwater must be appropriately monitored in the vicinity of the discharge site. In most cases this will be undertaken by the Environment Agency in the course of its routine site inspections, monitoring and sampling. In exceptional cases (e.g. for discharges which are large, frequent or generally of a higher risk) the permit holder may be required to carry out further monitoring for which they have to bear the cost.

"Requisite surveillance" as referred to in the Groundwater Directive, relates specifically to the monitoring of groundwater and is therefore only part of the monitoring activity that is necessary to ensure that your permit complies with the requirements of the Environmental Permitting Regulations. Your application will be evaluated to determine the degree of requisite surveillance required. In general, it is unlikely to be necessary for the majority of land spreading applications as the assessment process screens out activities that are of a high risk.

Operating techniques

Typical permit condition

(Typically, condition 2.3.2 on the permit)

The discharge shall be made by application onto an area of land (optional <with an established vegetation cover>) of minimal wildlife value. The area of land shall not include hedgerows, woodlands or wildflower meadows, or land that is bare as part of a crop rotation. (Optional <The spreading shall be conducted in strips across the discharge area such that there are strips at least ## metres (for example 2 metres) wide between the strips on which the discharge has taken place.)

Typical permit condition

(Typically, condition 2.3.3 on the permit)

No discharge shall take place within:

(a) 10 metres of the nearest watercourse (which includes ditches and open land drains which may run dry for part of the year) <(optional) or 30 metres <or other distance> of a river designated as a European Site or a Site of Special Scientific Interest (SSSI)>

(b) 50 metres of any well, spring or borehole, irrespective of its current use

(c) 500 metres <or other distance> of any well, spring or borehole where the water is intended for human consumption

(d) (optional) 25 metres of an identified swallow hole.

Typical permit condition

(Typically, condition 2.3.4 on the permit)

No discharge shall be made within 2 metres <or other distance> of any field boundary or footpath.

Typical permit condition

(Typically, condition 2.3.5 on the permit)

No discharge shall take place on land which:

(a) is under drained <(optional) has been under drained or mole drained within 12 months> prior to any discharge operation, or is cracked down to the drain or any backfill
(b) has a slope greater than 11 degrees (approximately 1 in 5)
(c) is frozen hard or snow covered
(d) is liable to flooding
(e) is severely compacted or waterlogged.

Typical permit condition or rule

(Typically, condition 2.3.6 on the permit)

Discharge equipment and / or methods shall be designed and operated such that the requirements of Conditions 2.3.7 and 2.3.11 (or 2.3.10 for pesticide washings) are met.

How to comply

Many of the groundwater activity specific conditions within your permit are intended to protect the environment and human health with particular reference to groundwater and other groundwater users. Groundwater is vulnerable to contamination and very difficult to clean if it occurs. Therefore it is important that specified distances are maintained from other water features such as watercourses, wells and boreholes. Also, dilution rates and application rates must be adhered to and appropriate methods of disposal employed so that the soil is not overloaded either chemically or hydraulically.

Volume

Typical permit condition or rule

(Typically, condition 2.3.7 on the permit)

The maximum volume of used / waste sheep dip (or working strength pesticide solution) before any dilution to assist safe spreading, shall not exceed xx cubic metres per day and xx cubic metres per annum discharged to the land identified in Schedule 7.

How to comply

The determination of your permit will have been based partially on the quantity of waste product which you wish to discharge / dispose. Therefore it is a condition of your permit not to discharge of more waste substance than is stated.

Discharge period

Typical permit condition or rule

(Typically, condition 2.3.8 on the permit)

The discharge of used sheep dip (or pesticide washings) shall **only** be carried out **between** the dates of AA BB and XX YY each year inclusive.

How to comply

Typically a permit is issued for use all year but in some situations it is necessary to limit the discharge period for environmental reasons, for example, to avoid a particular nesting time.

Typical permit condition or rule (waste pesticide washings only)

(Typically, condition 2.3.9 on the permit)

Washing of spray equipment and vehicles after use shall take place in an area selected for the purpose, which can not drain into drains, ditches and surface watercourses;

Contaminated wash water should be stored and re-used later as make-up water for a further batch of pesticide spray solution;

Where re-use is impractical, pesticide washings should be applied to the treated crop if this is within the terms of the product approval. The maximum dose must not be exceeded;

Where application to the treated crop is either not practicable or not possible, discharge shall be to an area of land specified in Schedule 7 and shall comply with the Conditions set out in this Permit.

How to comply

Following a pesticide application to crops you can, in some situations including those identified above, minimise or eliminate waste pesticide washings. This will reduce your waste disposal problems and save you money. However, in other situations you may not always be able to avoid having dilute pesticide left over at the end of the treatment. You must dispose of all dilute pesticide waste (including any leftover pesticides and all sprayer washings) safely and legally to protect humans, wildlife and the environment, especially groundwater and surface water.

Typical permit condition or rule (used sheep dip disposal only)

(Typically, condition 2.3.9 on the permit)

The discharge of used / waste sheep dip shall not be made to land on which crops are currently being grown for human consumption.

How to comply

You should not discharge waste sheep dip onto land that is being used to grow crops for human consumption.

Typical permit condition or rule (used sheep dip disposal only)

(Typically, condition 2.3.10 on the permit)

The discharge to the land identified in Schedule 7 shall not be undertaken more frequently than once per year

or

The discharge to the same individual area of land within the overall disposal site identified in Schedule 7 shall not be undertaken more frequently than once per year. A maximum of xx discharges may be made per year, but the area of land used must be rotated within the overall disposal site. The site plan identified in Schedule 7 shall clearly show sub-divisions highlighting individual areas for each discharge.

How to comply

With the introduction of the Landfill Directive the disposal of liquid waste to landfill was prohibited. An Environmental Permit can be used to regulate the discharge / disposal of used sheep dip providing that the manner in which the discharge is carried out does not bring the activity within the remit of Landfill Directive. Applying these principles the basic requirements are that the total area of land identified in your permit is authorised for use not more than once a year; or any individual plots within this area are used no more than once per year.

Application rate

Typical permit condition or rule (for use when discharge is of working strength sheep dip)

(Typically, condition 2.3.11 on the permit)

The maximum daily application rate of used / waste working strength sheep dip shall not exceed xx cubic metres spread evenly on a minimum of xx hectares of the land identified in Schedule 7.

Or

Typical permit condition or rule (for use when dip is diluted before discharge)

(Typically, condition 2.3.11 on the permit)

The maximum daily application rate of used / waste working strength sheep dip further diluted in the ratio of 1 part(s) dip to 3 parts slurry or water shall not exceed AAA cubic metres spread evenly on a minimum of BBB hectares of the land identified in Schedule 7.

Typical permit condition or rule (for use when waste pesticides are diluted before discharge)

(Typically, condition 2.3.10 on the permit)

The maximum daily application rate of working strength pesticide further diluted with slurry or shall not exceed xx cubic metres spread evenly on a minimum of xx hectares of the land identified in Schedule 7.

How to comply

Working strength used sheep dip must not be spread at rates greater than $5m^3$/ha. Although you may have a reliable method of spreading at this rate, in many cases, a vacuum tanker will be used. Most vacuum tankers have a fixed application rate of approximately $20m^3$/ha. This is 4 times higher than that proposed for safe spreading. Therefore the dip must be diluted with at least 3 parts slurry or water in order to maintain the recommended discharge rate.

For pesticide washings there is potentially a far wider range of substances and concentrations involved than for sheep dip. Defra's "Code of Good Agricultural Practice - Protecting our Water Soil and Air" (please refer to part 3) allows for various spreading rates. Therefore, for pesticide washings ONLY, higher spreading rates (that is, above 30 m^3/ha/day) are potentially acceptable, but would be subject to more rigorous and detailed site specific assessment).

Typical permit condition or rule (waste pesticides washings only)

(Typically, condition 2.3.12 on the permit)

The operator of the spray equipment shall take appropriate measures to eliminate or minimise the amount of working strength pesticide solution requiring discharge.

How to comply

It is government policy to keep pesticide use to the lowest possible level while making sure that pests, diseases and weeds are effectively controlled in a way which protects the health of people, plants or creatures you don't intend to treat and the environment. Using pesticides when you don't need to is not just a waste of money, it can also contribute to pests building up a resistance to products which then become less effective in the future.

You should always:

- use a pesticide in a carefully planned way
- use the correct pesticide at the right time and in the right way
- know the principles of using pesticides over the long term; and
- consider the long-term implications whenever you use a pesticide.

Emissions of substances not controlled by emission limits

Typical permit condition or rule

(Typically, condition 3.2.1 on the permit)

Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in table y below and in any approved emissions management plan, have been taken to prevent or, where that is not practicable, to minimise, those emissions.

The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan
- implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

The following are typical measures that you should take, where appropriate.

Emissions to surface water and groundwater

For surfacing, you should:

- make sure that surfacing and containment or drainage facilities are adequate for all operational areas, taking into consideration collection capacities, surface thicknesses, strength/reinforcement, falls, materials of construction, permeability, resistance to chemical attack, and inspection and maintenance procedures
- have an inspection and maintenance programme for impervious surfaces and containment facilities
- unless the risk is negligible, have improvement plans in place where operational areas do not already have
- an impervious surface
- spill containment kerbs
- sealed construction joints
- connection to a sealed drainage system.[12]

For detailed design standards on surfacing refer to the guidance in Part 3.

Emissions of substances not controlled by emission limits (continued)

Typical permit condition or rule

(Typically, condition 3.2.3 on the permit)

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 to prevent or, where that is not practicable, to minimise, leakage and spillage from the primary container.

[12] A sealed drainage system is a drainage system with impermeable components which does not leak and which will ensure that no liquids will run off a surfaced area other than via the system. Except where they are lawfully discharged, all liquids entering the system should be collected in a sealed sump.

How to comply

You should refer to any relevant Groundwater Protection Codes (and conform to all relevant British Standards at the time of installation) in relation to standards required for installing secondary containment and allied infrastructure to prevent pollution of groundwater.

Typical permit condition or rule

(Typically, condition 3.X on the permit)

Appropriate measures shall be taken to prevent the input of hazardous substances to groundwater by avoiding the entry of those substances into groundwater and by avoiding any significant increase in their concentration in groundwater.

How to comply

The Groundwater Daughter Directive (2006/118/EC) requires "all necessary measures" to prevent and limit the input to groundwater of hazardous substances and non-hazardous pollutants. This is described in detail in our H1 Guidance Annex (j) which considers the extent to which measures also need to be reasonable. Provided this guidance is followed, this will satisfy the "appropriate measures" required by the above condition.

Records

Typical permit condition or rule

(Typically, condition 4.1.3 on the permit)

Records for discharges of waste sheep dip (or waste pesticides) shall include :

- daily volumes of undiluted waste sheep dip discharged (or the estimated volumes of working strength pesticide solution discharged)
- rates of discharge
- location and area of discharge
- nature of used dip (marketing authorisation name will suffice); (or the pesticides present in any discharge (brand names will suffice)
- any materials added to dilute or treat the waste sheep dip, including water or slurry
- for multiple discharges (sheep dip only), clear records demonstrating compliance with only one permitted discharge per designated area of land per year shall be kept.

How to comply

Accurate record keeping is a condition of your permit and is fundamental in demonstrating compliance. Records should be available for inspection by the Environment Agency. The objective of this condition is to quantify the rate of discharge and the quality of the discharge as well as indicating that the conditions of the permit are being met.

Reporting/ notification

Typical permit condition (does not apply to standard rules)

(Typically, condition 4.3.5 on the permit)

Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- The Environment Agency shall be notified at least 14 days before making the change; and
- The notification shall contain a description of the proposed change in operation.

How to comply

Change in operation

If you want to change your operation, but the change is not contrary to your permit conditions, then you do not have to vary your permit.

When the proposed change in operation falls within the criteria set out in the condition, and explained below, you must notify us at least 14 days in advance of making the proposed change and the notification must contain a description of the change.

A change in the **nature** of the activities is a change in what is being done (e.g. a change in the brand of sheep dip).

A change in the **functioning** of the activities is a change in how the activities are carried out (e.g. using a mobile dipping contractor rather than a static dip or vice versa).

An **extension** is a change in size affecting the capacity of the facility to carry out the activities (e.g. removing treatment or storage capacity at the facility)

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Part 3 Additional guidance

Part 3 – Additional guidance

Part 3 – Additional guidance

Unless stated otherwise, all of the following guidance can be found at www.environment-agency.gov.uk

Guidance for particular sectors as follows

EPR 1.01 Combustion
EPR 1.02 Oil, gas, coke and coal
EPR 2.01 Coke, iron and steel
EPR 2.03 Non-ferrous metals and the production of carbon and graphite
EPR 2.04 Hot rolling of ferrous metals
EPR 2.07 Surface treatment of metals and plastics
EPR 3.01 Cement and lime
EPR 3.03 Glass manufacturing
EPR 4.01 Large volume organic chemicals
EPR 4.02 Speciality organic chemicals
EPR 4.03 Inorganic chemicals
EPR 5.01 Incineration of waste and fuel made from waste
EPR 5.02 Landfill
EPR 5.03 Parts 1 & 2 Treatment of landfill leachate
EPR 5.07 Clinical waste
EPR 6.01 Pulp and paper
EPR 6.05 Textiles
EPR 6.08 Tanning of hides and skins
EPR 6.09 Intensive farming
EPR 6.10 Food and Drink general
EPR 6.11 Poultry processing
EPR 6.12 Red meat processing

EPR 6.13 Dairy and milk products

EPR 6.14 Mining waste operations

EPR 6.15 The use on land of compost-like outputs from the mechanical-biological treatment of mixed municipal solid wastes

S5.06 Guidance for the Recovery and Disposal of Hazardous and Non Hazardous waste

EPR 7.01 Surface water and groundwater point source discharge activities

National Emission Reduction Plan (NERP)

– Guidance on the Trading Scheme for the National Emission Reduction Pan (NERP)

Composting

– The Composting Industry Code of Practice: Industry guide for the prevention and control of odours at biowaste processing facilities

– Guidance on the evaluation of bioaerosol risk assessments for composting facilities

Waste Electrical and Electronic Equipment (WEEE)

– Guidance on Best Available Treatment Recovery and Recycling Techniques (BATRRT) and treatment of Waste Electrical and Electronic Equipment (WEEE).

Available at www.defra.gov.uk

End-of-Life-Vehicles

– Depolluting End-of-Life Vehicles Guidance for Authorised Treatment Facilities

– Depollution Guidance for End-of-Life Vehicles over 3.5 tonnes

Available at www.defra.gov.uk

Household Waste Recycling Centres

– Storing hazardous wastes at household waste recycling centres

Available at www.hse.gov.uk

Guidance on particular topics

H1 Environmental Risk Assessment

H2 Energy Efficiency

H3 Noise
H4 Odour
H5 Site Condition Report Guidance
H6 Environmental Management Systems

The Regulations

– The Environmental Permitting (England and Wales) Regulations 2010 SI 675
– Environmental Permitting Core Guidance
Available at www.defra.gov.uk

Application Forms

– The Environmental Permitting Regulations: Application forms and guidance for applicants

Relevant Directives

- IPPC Directive (2008/1/EC)
- Large Combustion Plant Directive (1988/609/EEC)
- Habitats Directive (92/43/EC)
- Asbestos Directive (87/217/EEC)
- Solvents Directive (1999/13/EC)
- Titanium Dioxide Directive
- Landfill Directive (1999/31/EC)
- Groundwater Directive (80/68/EEC)
- Waste Framework Directive (2006/12/EC)
- Water Framework Directive (2000/60/EC)
- End of Life Vehicles Directive (2000/53/EC)
- Waste incineration Directive (2000/76/EC)
- WEEE Directive (2002/96/EC)
- Mining Waste Directive (2006/21/EC)
- Dangerous Substances Directive (76/464/EEC) and related daughter directives (82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC)
- Environmental Liability Directive (2004/35/EC)
- Batteries Directive (2006/66/EC)
- Groundwater Directive (2006/118/EC)
- Urban Waste Water Treatment Directive (91/271/EEC)
- Shellfish Water Directive (2006/113/EC)
- Bathing Water Directive (2006/7/EC)
- Freshwater Fish Directive (2006/44/EC)

BREF

- www.jrc.es/pub/english.cgi/0/733169 or
- www.eippcb.jrc.es

Accidents

– PPG 18 Managing Fire-water and major spillages, Environment Agency Pollution Prevention Guidance

– PPG 21 Pollution incident response planning

– BS 5908 Code of Practice for Fire Precautions in the Chemical and Allied Industries

– PPG 28 Controlled Burn

– COMAH guides – www.hse.gov.uk/pubns

– CIRIA 164 Design of Containment Systems for the Prevention of Water Pollution from Industrial Incidents – CIRIA Report 164

– The Environmental Damage (Prevention and Remediation) Regulations 2009 – Quick Guide to the Regulations

Energy efficiency

- www.carbontrust.co.uk/energy/

Waste minimisation

- www.envirowise.gov.uk

Water efficiency and releases to water

- www.envirowise.gov.uk/water

Releases to land and groundwater

– Groundwater Protection Policy & Practice (GP3)

– Protecting our Water Soil and Air: A Code of Good Agricultural Practice for Farmers, Growers and Land Managers

– Groundwater Protection Code: Use and disposal of sheep dip compounds

– Pesticides: Code of Practice for Using Plant Protection Products

– Groundwater Protection Code: Solvent use and storage

– Groundwater Protection Code: Petrol stations and other fuel dispensing facilities involving underground storage tanks

Control of emissions not subject to emission limits

– PPG2 Pollution Prevention Guidance Note – Above-ground oil storage tanks, PPG 2, Environment Agency, gives information on tanks and bunding which have general relevance beyond just oil

– PPG 3 Use and design of oil separators in surface water drainage systems (pdf)

– The Control of Pollution (Oil Storage) (England) Regulations 2001. SI 2001 No 2954 – are generally applicable to the storage of any potentially polluting liquid

– CIRIA/Environment Agency Joint Guidelines:

– Concrete Bunds for Oil Storage Tanks

– Masonry Bunds for Oil Storage Tanks

– PPG 6 Working at Construction and Demolition-sites

– PPG26 Storage and handling of drums and intermediate bulk containers (IBCs)

Monitoring guidance

– Applications under the Environmental Permitting Regulations (EPR). Assessment of Monitoring Arrangements: Emissions to Air

– M1 sampling requirements for stack emissions monitoring

– Guidance on undertaking an Operator Monitoring Assessment (OMA) Audit

– M2 monitoring of stack emissions to air

– M8 ambient monitoring strategy

– M9 ambient monitoring methods

– M13 monitoring hydrogen sulphide and total reduced sulphur in atmospheric releases and ambient air

– M15 Monitoring PM10 and PM2.5

– M16 monitoring volatile organic compounds (VOCs) to air from industrial installations

– M17 monitoring of particulate matter in ambient air around waste facilities

– M18 monitoring discharges to water and sewer

– M20 quality assurance of continuous emissions monitoring systems

– Direct Toxicity Assessment for Effluent Control Technical Guidance (2000), UKWIR 00/TX/02/07

– A Standardised Protocol for the Monitoring of Bioaerosols at Open Compost Facilities

Activities for which odour is a key issue

The following are activities where odour can frequently be a problem. If you operate one of these you must have an odour management plan unless otherwise agreed, in writing, by the Environment Agency. If you are applying for a bespoke permit you should submit the plan with your application. For more information on what the plan should contain see Odour in the relevant section in Part 2 of this document, the application form guidance and H1 Environmental Risk Assessment. If you hold a standard permit you do not need to submit it. We will look at it during inspections or if an odour problem arises. If your activities are not on the list but you know you have an odour problem you should also have an odour management plan.

Waste activities

– Landfilling of biodegradable waste

– Composting in open windrows (available as standard rules)

– Composting in vessels (available as standard rules)

– Mechanical biological treatment (available as standard rules)

– Sewage sludge treatment (available as standard rules)

– Clinical waste treatment (available as standard rules)

– Animal carcass incineration (available as standard rules)

– Pet cemetery (available as standard rules)

– Mobile plant for: landspreading, the treatment of land for land reclamation, restoration or improvement and landspreading of sewage sludge (available as standard rules)

– Mobile plant for the treatment of waste soils and contaminated material, substances or products (available as standard rules)[13]

– Anaerobic digestion (available as standard rules)

Chemicals

– Manufacture, use or recovery of compounds containing sulphur, ammonia, amines and amides, aromatic compounds, styrene, pyridine and esters

Treatment of Animal and Vegetable Matter and Food Industries

– Abattoirs and Renderers

– Food production involving any form of cooking or heating and brewing

Other

– Refineries

– Distilling or heating tar or bitumen

[13] This set of rules does not contain a rule requiring the operator to maintain and implement an odour management plan as odour control would normally be addressed within the agreed deployment form.

Would you like to find out more about us, or about your environment?

Then call us on
08708 506 506 (Mon–Fri 8–6)

email
enquiries@environment-agency.gov.uk

or visit our website
www.environment-agency.gov.uk

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