Installations basic general pre-application advice

Check if you need an environmental permit

If you are unsure whether your activity requires an environmental permit or what kind of permit you require, you should read our guidance on whether you need an environmental permit.

How do I apply for a new permit?

To apply for a new permit, you must complete the relevant application forms and provide the required supporting information.

For some operations you can apply for a standard rules environmental permit. These have fixed conditions and are only suitable for a limited number of activities and locations. For all other activities and locations, you need to apply for a bespoke permit.

Standard rules:

- Apply for a new standard rules online
- You can also use the application forms for a new standard rules permit. You need to email the completed forms, along with supporting documentation, to psc@environment-agency.gov.uk

Bespoke permit:

- To apply for a bespoke installation permit you must complete application forms A, B2, B3 and F1.
- You will also need to complete application form part B6 if your installation includes a point source emission(s) to water, groundwater or sewer.

You should read the guidance notes that accompany each form. You should download the application forms and open with an Adobe Acrobat Reader. You may not be able to complete the form using other pdf readers, such as the one built into your internet browser.

Application forms and guidance for a bespoke permit application.

You need to email the completed forms, along with supporting documentation, to psc@environment-agency.gov.uk

When sending documents please ensure they are named appropriately to clearly identify the contents. Please use the following format: Application [Application Type] [Document Title] DDMMYYYY

The document name cannot contain special characters apart from -_.( ). If additional text is required, it should go before the document date. For example:

- Application Bespoke Supporting Information Risk Assessment 14022024
- Application Bespoke Non Tech Summary 14022024
- Application Standard Rules Site Plan 16022024
- Application Variation Part C2 16022024

IMPORTANT: Do not reply to the email address you received this email from, it is not monitored. Please send any replies to preapplicationservice@environment-agency.gov.uk

How do I change, transfer or cancel my permit?

If you already have a permit, and want to change (vary) it, transfer it to another person or business, or surrender it, you must provide the correct forms and supporting information.

How to change details of your environmental permit, transfer it to somebody else or surrender it.

If you are considering carrying out research or trials check if you can follow the standard rules SR2024 No 1: research and development at a Part A(1) installation. To apply for this standard rules you must complete application forms A, C1 and F1, fees and charges can be found here Register a research and development trial under SR2024 No 1 - GOV.UK. For further information, read Waste operations and A1 installations: carrying out research or trials. You may not need to apply to vary your permit when you carry out research activity or trials if you follow this guidance.

How much will my permit cost?

Before applying, you should read the Environmental permitting charges guidance. This sets out how to calculate the relevant charge and when certain charges apply.

You need to provide payment via credit or debit card or BACS transfer when your application is submitted. We will not provide an invoice. If your Finance team require evidence before they can make funds available we suggest you send them a copy of your completed application form Part F1 and a link to the charging scheme.

Baseline charge

You can find a full list of activity charges in table 1 in the tables of charges in the Environmental permitting charging scheme. The baseline charge for an application covers the work the Environment Agency carries out each time they determine a typical permit application.

There are fixed baseline charges for new applications, variations to permits, transfer applications and surrender applications.

Add-on charges

You may have to pay an add-on assessment charge for the assessment of plans, for example an odour management plan.

If we need to carry out additional assessments, for example a habitats assessment, we may charge extra for this work.

You must pay the add-on charge when applying for a new permit or if you need to submit a new plan when applying for a permit variation.

In some cases the costs of assessing these plans is included in the baseline application charge. The activity description in table 1 in the tables of charges will say if this is the case.

The plans and assessments are listed in table 1.19 in the tables of charges in the charging scheme.

Habitats assessment

For certain protected sites we need to carry out a habitats assessment. For these sites we charge a fixed amount of £779.

This is an assessment of the risks to one or more of these sites, a:

- European Site within the meaning of the Conservation of Habitats and Species Regulations 2017
- site referred to in the National Planning Policy Framework 2018 as requiring the same assessment as a European Site
- site of special scientific interest within the meaning of the Wildlife and Countryside Act 1981
- marine conservation zone within the meaning of the Marine and Coastal Access Act 2009

We have included further information on when this is required in the supporting documents section below.

Subsistence

If we grant a permit, you will need to pay an annual subsistence charge to cover the ongoing costs of regulating the permit. The subsistence charges are listed in the tables of charges in Part 3 of the charging scheme.

Sites of High Public Interest (SHPI)

If your site is designated as a SHPI a different charging processes is applied. Additional information on SHPI is included in section 2.5 of the Environmental Permitting Charges Guidance.

- An application for a SHPI is subject to a newspaper advertising charge of £538.
- The number of hours it takes to determine the application will be calculated at £100 per hour (commonly referred to as a 'time and materials' charge). If this is higher than the standard application charge listed in the Charging Scheme, the additional charge component will be applied – please see section 2.5 of the Environmental Permitting Charges Guidance.

How to pay

You can pay online at this link www.gov.uk/payments/permitting-applications-installations/permitting-application-payment-installations

You need to create your own reference number. Your reference number must follow this format: PSCAPPINSTXXXXXYYY. It should include the first five letters of the company name (replacing the X's in the above reference number) and a unique numerical identifier (replacing the Y's in the above reference number). When you apply tell us the reference number and the payment date so we can track your payment.

Details of how to pay by other methods are given in Part F1 of the application form.

Declaration

Please ensure the Declaration section is completed by each "relevant person".

- For an application from an individual, a relevant person is the person to be named on the permit.
- For an application from more than one individual, each person who is applying for their name to be on the permit must complete the declaration – you will have to complete a separate copy of the declaration page for each additional individual.
- In the case of a company a relevant person must be an active director/company secretary as listed on Companies House.
- For a limited liability partnership, the declaration must be completed by a partner.
- For a charity, a relevant person is a key post holder: chair, chief executive, director or trustee.

Further information on who should complete the declaration can be found in section 5 of the guidance notes for the F1 application form.

Supporting documents

You need to supply supporting documents with your application. The online guidance and application form guidance explain what documents you need to provide.

Depending on the type of application, you might not be required to provide all the documents listed below.

If you do not provide the correct supporting information this may delay the processing your application.

Non-Technical Summary

For new bespoke permits and most variation applications you need to send us a simple explanation of your proposed activities (or in the case of a variation, what changes you propose to make). This should include a summary of your operations and a summary of the key technical standards and control measures arising from your risk assessment.

As a guide, this summary document should be no more than one to two pages in length.

Site plan

New installations applications require a site plan. It is also required when you propose to increase or reduce your site boundary.

The plan must clearly show the full site boundary in a single unbroken line. For standard rules permits, the boundary must be in green (note this does not apply to standard rules SR2024 No.1 – R&D at a Part A(1) Installation).

Your plan should clearly mark the site layout, infrastructure and drainage arrangements.

Environmental Management System

For new bespoke permit applications and transfer applications you must send a summary of your environmental management system (EMS). An update to your EMS may also be required for some variation applications. You should follow the guidance on developing a management system.

Habitats risk assessment

You should check if your site is located within the relevant screening distance of a designated site. If so, you need to assess the risk to the site(s) from your activity. You may need to pay an additional charge to cover the assessment of the risk. Further information is included in the ‘How much will my permit cost’ section above.

To help you identify relevant sites, you can ask us to complete a Nature and Heritage Conservation Screening assessment for you, using the online pre-application service. The screening assessment service is free of charge.

If you are applying for a variation and emissions or impacts are increasing as a result of that change then depending on the location of the facility you may need to assess how the increased impact will affect habitat sites.

If your proposed operation involves any nitrogen or phosphorus nutrient inputs to surface water (or groundwater in hydrological continuity with surface water) and it is within the relevant screening distance of one of the protected conservation sites listed in Annex C table 1 or 2 of the Natural England Water Quality and Nutrient Neutrality Advice (16 March 2022) - NE785 then you will need to consider how you will achieve nutrient neutrality for your operation. In line with the Habitats Regulations any proposed net increase in nutrient load discharged into these catchments, which are currently failing to meet their water quality objectives for nutrients, will cause an adverse effect to the protected site and must therefore be considered for refusal. For more information on Nutrient neutrality see Natural England's guidance at the following link: Nutrient Neutrality and Mitigation: A summary guide and frequently asked questions - NE776.

Environmental Risk Assessment

For new applications or when you make changes, you must consider the environmental risk posed by your proposals. This must take the form of an environmental risk assessment which should follow the methodology set out in risk assessments for your environmental permit.

You should read our guide to risk assessments for specific activities and consider using our assessment tool to evaluate your environmental risk. Our assessment tool will inform you when more detailed modelling is required.

You should check if your site is located in a flood risk zone. If the site is in a flood zone, you should assess the risk of pollution in the event of a flood.

Depending on the outcome of your initial environmental assessment, you may be required to undertake detailed modelling of your environmental risk.

- If you need to assess the risk of emissions to air, use the air emissions risk assessment for your environmental permit guidance.

  You must carry out detailed modelling assessment on any emissions that you didn't screen out through your air emissions risk assessment. Your modelling report needs to follow the air dispersion modelling reports guidance.

- If you need to assess the risk of hazardous pollutants to surface water, you need to follow the surface water pollution risk assessment guidance.
- If you need to assess the risk from sanitary determinands you should follow the assessment of sanitary and other pollutants in surface water discharges methodology.
- If you need to undertake detailed modelling of the risk to surface water you should follow the surface water pollution risk assessment methodology.

- If you need to undertake an assessment of the risk to groundwater you should follow the groundwater risk assessment guidance.

Technical Description and BAT assessment

For new permit applications, you will need to provide a technical description of the activity (or in the case of a variation, the changes you propose to make).

You need to detail the plant, equipment and infrastructure, including design capacities. You must demonstrate how you will meet any relevant Best Available Techniques (Including compliance with BAT conclusions where these have been published for your activity). This should include consideration for any relevant Directives, such as Medium Combustion Plant Directive (MCPD), Energy Efficiency Directive and Waste Framework Directive (WFD).

The technical assessment should also include details of your operating techniques and the infrastructure you are using to minimise the risk of pollution, including any details of secondary containment used (such as bunds) and how this meets any relevant standards. Please see the pollution prevention guidance for additional advice.

If you are varying your permit, you should detail any existing operating techniques (as listed in table S1.2 of your permit) that are subject to change by the application being made and demonstrate how they will meet any relevant BAT. Note any new equipment or activities are likely to need to meet any new and relevant BAT standards.

Amenity management plans

You must read our guidance on how to control and monitor emissions for your environmental permit.

This includes guidance on controlling pollution from odour, dust, noise, pests and other ‘fugitive emissions’ (emissions without set emission limits).

You may be required to produce standalone management plans to demonstrate how you will control and monitor emissions. These will be assessed as part of your application. For odour and dust, we can supply a management plan template. The templates have been designed to cover the aspects of your operations that we will assess. You do not have to use this template, but if you do and provide all the information requested, it makes it more likely your plans will be accepted. You should contact the following teams to request a copy the template:

- Odour: odourteam@environment-agency.gov.uk
- Dust: air.quality@environment-agency.gov.uk

For activities where dust and or odour has the potential to be a high risk, we have included the relevant templates with this advice. You may need to pay an additional charge for the assessment. Further information on this is included in the 'How much will my permit cost' section above.

This also applies to variations which may lead to an increase in emissions as a result of the changes being proposed.

We have included additional notes below on specific considerations for noise impact assessments below.

Risks from Noise and Vibration, Industrial and Commercial Sound and Noise Management Plans

The Noise Advisory Tool (NAT) is available to applicants for guidance about whether a noise impact assessment (NIA) and noise management plan (NMP) will be required to support a specific environmental permit application. The NAT and accompanying guidance can be found at: Noise and vibration: Environmental permit application guidance. The NAT will form part of your risk assessment.

You will need to download and complete the NAT and submit your completed spreadsheet with your application. You will need to provide evidence to support answers inputted into the tool. A Permitting Officer will review your NAT spreadsheet as part of the application process. The tool can only advise and is not determinative or legally binding. You are responsible for ensuring that your responses to the questions are factual and in line with the proposed operation of the site.

If your risk assessment shows your operation is likely to cause pollution from noise or vibration beyond your site boundary you must provide a noise impact assessment (NIA) based on BS4142:2014+A1:2019 – 'Methods for rating and assessing industrial and commercial sound'.

The Environment Agency may ask you to give more information or submit an NIA and NMP regardless of the output of the NAT. The NAT relies on limited inputs and cannot consider all site-specific variables which could affect how noise pollution is perceived at noise sensitive receptors.

Where your assessment has used calculations or modelling to predict sound pressure levels at receptors, you must follow our guidance on the presentation of your acoustic data: Noise impact assessments involving calculations or modelling.

We have attached some supplementary advice on producing a NIA.

Your NIA must be accompanied by a Noise Management Plan based on the results of your NIA. We have attached a template to help you produce a noise management plan.

Fire Prevention Plan (FPP)

If you store combustible wastes at your site you need to provide an FPP. You must follow our guidance on Fire Prevention Plans. This tells you what to include in your FPP and the fire prevention measures you must put in place. We have also produced a template to help you prepare your plan.

If you are varying your permit and this will lead to an increased fire risk, then a new or updated plan will be required.

Accident prevention and management plan

Your EMS should include a plan for dealing with any incidents or events that could result in pollution. This should follow our guidance on producing an accident prevention and management plan. If applying for a variation, you may need to update this plan to incorporate the proposed changes.

Technical Competence

If your activities include waste management, you must meet legal operator and competence requirements. You will need to send in evidence of appropriate technical competence for the proposed activities (or in the case of variations, the proposed changes). You will need to include valid certificates or other acceptable evidence.

Site condition report (SCR)

For guidance on site condition reports and establishing baseline reference data see H5 Site Condition Report guidance.

If you are proposing to use, produce or release hazardous substances you may need to complete or update a stage 1 to 3 assessment in accordance with EC Commission Guidance on baseline reporting (2014/C 136/03) dated 6 May 2014.

To identify hazardous substances use the criteria given in article 3 in the Classification, labelling and packaging of substances and mixtures regulations.

See sections below for further advice on SCR and stage 1 to 3 assessments for new bespoke and permit variation applications.

A supplementary stage 1 to 3 assessment advice note is included at the end of this basic pre-app advice.

New bespoke permit - SCR

You must submit a SCR with sections 1 to 3 of the SCR template completed with your permit application. You should use the H5 Site Condition Report word template to prepare your SCR.

You must complete a stage 1 to 3 assessment and include this in your SCR if you are proposing to use, produce or release hazardous substances.

Permit variations - SCR

You must update your existing site condition report if you are proposing to:

- extend your site boundary
- use, produce or release any new hazardous substances

You must submit your updated site condition report with your permit variation application. If you have not previously produced a site condition report you should use the H5 Site Condition Report word template to prepare your SCR.

If you have an existing Application site report (ASR) and Site Protection and Monitoring Programme (SPMP) you should either update or replace these with a site condition report.

If you are applying for a variation and you propose to use, produce or release new hazardous substances, you must:

- update your existing stage 1 to 3 assessment
- produce a new stage 1 to 3 assessment if you do not already have one
- update or collect new baseline reference data, if applicable

This also applies if you are proposing to relocate any hazardous substances you currently use, produce or release to a new area within your site boundary.

You must submit this to us as part of your updated site condition report.

Guidance for new bespoke permits and variations - SCR

A stage 1 to 3 assessment is required to comply with the requirement for a baseline report in Schedule 7 (paragraph 5 [m]) in the Environmental Permitting Regulations.

If your stage 1 to 3 assessment identifies a risk to soil and groundwater we recommend baseline reference data is established for these substances and you do soil and groundwater monitoring during the life of your permit.

It is recommended that A1 installations who do not have hazardous substances complete the stage 1 to 3 assessment for any other potentially polluting substances.

This will help you demonstrate your site is in a satisfactory state when you apply to surrender all or part of your permit.

Decarbonisation Readiness

If you are applying for an environmental permit for a new or substantially refurbished electricity-generating combustion power plant on or after 28/02/2026, you may be required to demonstrate Decarbonisation Readiness (DR) as part of your permit application. DR is demonstrated through a DR report, which shows there are no known barriers to converting the plant in future to low-carbon route operation (carbon capture or hydrogen), should you be required to. You should refer to the published external guidance for operators and our consultation response for full details of applicability and exemptions.

DR Transition

Where an environmental permit (or permit variation) is issued containing DR conditions, those decarbonisation readiness conditions will supersede the existing Carbon Capture Readiness (CCR) conditions imposed through the 2013 Regulations. No further action is required to remove existing CCR conditions – they cease automatically once the permit containing DR conditions is issued.

If your plant is subject to existing CCR conditions under the planning regime and you wish to voluntarily transition to decarbonisation readiness, you may apply for a permit variation to include DR conditions.

You may have carbon-capture-related requirements in your Development Consent Order (DCO) that were not imposed to meet the CCR 2013 Regulations. These requirements will not always be automatically superseded by DR conditions. You should seek your own planning/legal advice on how your DCO requirements interact with DR.

The four tests

Your DR report must address all four DR tests: spatial availability, technical feasibility, access to CO_2 transport and storage or to a hydrogen supply, and economic feasibility.

If you are applying for a Standard Rules permit, you must complete and document your own assessment for all four tests and provide self-certification statements with your permit application to confirm that the requirements have been met. Your DR report must be kept and made available to the EA upon request.

If you are applying for a bespoke permit, you must submit a DR report with your application. We will assess the spatial availability and technical feasibility tests as part of determination. You must still complete and document your own assessment for the other two tests (access to CO_2 transport and storage or to a hydrogen supply,

and economic feasibility) and provide a statement of self-certification as part of your DR report.

The level of detail evidenced in your DR report should be proportionate to plant size and complexity.

You should refer to the published DR guidance when producing your DR report to ensure you meet the requirements. The guidance is supported by, and should be reviewed in conjunction with, the:

- carbon capture readiness technical study
- hydrogen readiness technical study

Charges

A charge will apply if you need to submit a DR report for assessment. You must pay the add-on charge when applying for a new permit or if you need to submit a new report when applying for a permit variation.

The draft charges proposed are:
• **£5,090** for plants **≥50 MWth** or **any energy-from-waste plant**;
• **£3,181** for plants **<50 MWth**.

A **£100 per hour** time-and-materials rate is also proposed for any DR-related compliance work (for example, assessing updated DR reports). Final charges will be confirmed following consultation.

Reviewing Decarbonisation Readiness

You will be required to review and update your DR report at intervals not exceeding two years, to ensure that the proposed decarbonisation route remains feasible as technologies and infrastructure develop. An up-to-date DR report must be made available upon request.

If your preferred decarbonisation route changes, you may update your DR report at any time. We may request the updated report as part of compliance activities.

Multi-operator installations

If different parts of the installation (that are technically connected) will be operated by different organisations or people you will need to apply for a multi-operator installation. This means that if we granted the application the Installation will be covered by more than one permit (issued to different operators), with each permit defining their responsibility within the Installation area.

When making an application each potential operator will need to apply for a permit for the parts of the site they will be responsible for. The applications must be submitted at the same time. Each applicant will need to pay the relevant application charge for the activities they are applying for. It is important all operators discuss proposals with each other and consider the impacts of their operations on the other operators.

The applications should refer to each other so we can assess them together. Each application needs to include any relevant supporting information requested by our application forms, such as site condition reports, environmental risk assessments and descriptions of operating techniques.

We will normally return any individual applications for multi-operator installations where the other applications for the site have not yet been submitted. For new applications we will typically issue any granted permits at the same time so the application timescales will be dependent on each other.

It is important we understand which parts of the installation each operator will be responsible for if a permit is granted. In your applications all operators will need to include:

- Site plans showing the boundaries of the whole site and the boundaries for the specific activities controlled by each operator
- An environmental risk assessment which covers the whole site and all activities (for example cumulative impacts for noise emissions from both permits operational at the same time)
- Explanation of how the different activities are interconnected and who has responsibility for what in their operating techniques. Where there is crossover (for example a conveyor carrying material into the other site) and it is not possible to divide responsibility, the application should identify the overall responsible operator for that plant
- Explanation of how the respective Environmental Management Systems address the interaction between the two operators and will implement effective communication throughout the life of the permit

Any future changes to the permits such as variations or transfers need to be discussed with all operators and depending on the changes proposed (such as where there is an interaction between emissions) may require applications from all operators to make any required changes to all permits.

If you think you will have more than one operator at your site we recommend you seek enhanced pre-application advice.

Water Discharges

If your application will include water quality discharges which form part of the same installation facility you must complete the installation application forms and water quality application forms. If the discharge is standalone (not technically linked to the installations facility) on another separate permit you can access pre-application advice here or follow the guidance here.

Waste Activities and Exemptions

If you require pre-application advice about a standalone waste activity, then you can access advice here. If the waste activity will be included with your installations permit application, and is not a directly associated activity, you should follow the guidance here and complete application form's part B4 or B1 as appropriate.

A waste exemption is a waste operation that is exempt from needing an environmental permit. Future reforms to waste exemptions will mean exemptions cannot be registered at or adjacent to (where there is a direct link) permitted installations. Waste exemptions cannot currently be used on a permitted installation. For further details including transition periods, please read Waste Exemptions – Getting Ready for Change. We do not expect changes to the Environmental Permitting Regulations (EPR) before 2025. The exact date depends on parliament and its legislative programme.

Other permissions required

The above advice covers installations activities only. Other permissions from the Environment Agency and/or other bodies may be required for your activity or if you carry out any associated or additional activities, for example:

- List of activities that need an environmental permit
- If you abstract or impound water
- Planning permission
- If you work on or near a river, flood defence or sea defence

Submitting an application

Please submit your application by email or, if applicable, by using the online form as detailed in the ‘How do I apply for a new permit?’ section above.

Send environmental permit application information in stages

You can ask the Environment Agency if you can submit application information in stages if your proposal is either or both:

- complex
- a novel technology

If you want to submit information in stages read the guidance and follow the instructions to request as part of enhanced pre-application advice.

After you apply

We will check your application to make sure it is complete. We refer to these checks as ‘validation’ and ‘duly making’. This is to ensure we have enough information to start to determine your permit application. We will contact you if information is missing and can feasibly be provided within 10 working days. If we consider information cannot be provided within this time frame we will return your application with a list of what is missing.

If we cannot progress your application past this stage for any reason, we will return it and refund the application charge minus 20% to cover our costs to that point.

We will not charge this if we return an application after having done very little work – for example, because it contained obvious errors or omissions.

The amount we will keep is capped at £1,613.

Once we have duly made an application we will start to determine it. This is when we do our technical checks. We may need to ask you for further information or additional documents at this stage.

Once an application has been validated or duly made, it is ready to be allocated for determination.

The time it takes us to allocate an application varies, depending on the complexity of the specific application and the availability of a member of our team with the right skills to assess it.

The amount of time taken to determine your application will vary. It will be impacted by factors such as:

- The quality of the application
- The complexity of the application
- Whether an application is of high public interest
- Whether the application includes novel technologies or techniques
- Whether the determination requires input from others, both internal and external to the Environment Agency
- Whether modelling and/or monitoring and assessment is required, for example Air Quality modelling and assessment

The Permitting Officer determining your application will be able to keep you updated with the progress of your application.

I still have questions about my application, and I’d like further advice

If you have remaining basic questions about your application which have not been answered by.gov.uk guidance pages or the advice given in this document (and any supplementary activity document) you can email us with your application specific question to: preapplicationservice@environment-agency.gov.uk

Please quote your unique Environment Agency EPR number found in your pre-app response email. Please note this basic free advice is limited to:

- The correct application charges
- The correct application forms to use
- What guidance you must follow
- Information about administrative tasks the Environment Agency may need you to do as part of your application
- If there are standard rules sets relevant to your activities and if you meet the criteria for them
- Information about risk assessments you may need to do to accompany your application

Alternatively, if you have decided that you now need chargeable enhanced pre-application advice to ask more detailed site-specific technical questions about your application then you will need to complete this form to access this service, insert your unique EPR number found in the basic pre-app response email when prompted by the form.

This enhanced service could include advice on:

- the type of permit you need
- complex modelling
- preparing risk assessments
- parallel tracking for complex permits with planning applications
- specific substances assessments
- monitoring requirements (including baseline)
- what guidance you must follow before you submit your application
- the correct application charge

Priority Tracked Service

We offer coordination for pre-application advice and decisions for large or complex projects which require multiple environmental permits or licences, or a combination of both. You can use this optional service to help you submit multiple applications effectively. Further information is available via Request environmental permit coordination for major projects.

Supplementary stage 1 - 3 assessment advice (Part A installations)

Background

Schedule 7 to the EPR transposes the requirements of the Industrial Emissions Directive into domestic law. This requires Part A1 installations to complete a 'baseline report.'

To satisfy the requirement for a 'baseline report' Part A1 installations are required to produce a stage 1 - 3 assessment if they propose to use, produce or release any hazardous substances during the life of the permit to identify if there is a risk of pollution risk to soil and groundwater.

Where a risk to soil and groundwater is identified baseline reference data **must** be established and periodic soil and groundwater monitoring carried out – at a frequency to be agreed but every 10 and 5 years respectively as a minimum.

Whilst a periodic monitoring condition is included in all Part A1 installation permits this condition only becomes active when a risk from relevant hazardous substances is identified.

Further information on the Stage 1 - 3 assessment is detailed in the EC guidance concerning baseline reports (2014/C 136).

We are currently updating our existing H5 SCR guidance on GOV.UK to provide further information on complying with baseline reporting and periodic monitoring requirements.

Stage 1 – Identify hazardous substances used on site

You should produce a list of all hazardous substances you propose to use, produce or release within your site boundary.

Include raw materials, effluent discharges, products, intermediaries, by-products, emissions or wastes.

You should then determine which of the substances are classified as hazardous substances.

Hazardous substances are defined in article 3 of the Classification, labelling and packaging of substances and mixtures regulations (CLPR).

They are defined as a substance or a mixture of substances that meet the criteria given in Parts 2 to 5 of Annex I of the CLPR. They are:

- Part 2 – physical hazards.

- Part 3 – health hazards.
- Part 4 – environmental hazards.
- Part 5 – additional hazard to the ozone layer

Your material safety data sheets will state if any substances you are proposing to use, produce or release are hazardous substances.

You can also use the:

- C&L Inventory on the European Chemicals Agency (ECHA) website
- Registered substances on the ECHA website
- eChemPortal on the Organisation for Economic Co-operation and Development website

Include the chemical constituents if substances are listed as trade names. Give details of the proportion of the largest constituent chemicals if there are mixtures or compounds.

Stage 2 – Identify relevant hazardous substances

You must work out the potential pollution risk of each hazardous substance you have identified in Stage 1. If they could cause soil and groundwater pollution, they are called 'relevant hazardous substances'.

To identify relevant hazardous substances, you must do this by reviewing the chemical and physical properties of each hazardous substance by assessing the:

- solubility
- toxicity
- mobility
- persistence – consider for example degradation rates, breakdown products and the potential for bio-accumulation
- biodegradability
- physical state - solid, liquid or gas

To get information on physical and chemical properties you can use your material safety data sheets.

You can also use the:

- eChemPortal on the Organisation for Economic Co-operation and Development website

Where a group of substances display similar characteristics, you can assess them together. Your assessment must include:

- your data and how you interpreted it
- a justification if any hazardous substances have been excluded, included or grouped together

- substances you have identified as relevant hazardous substances

The information for this stage is generally summarised in a table with the final column identifying whether a substance has the potential to cause pollution and is therefore a Relevant Hazardous Substance (RHS) or a substance with a pollution potential.

You can use Example 1 as a checklist for the type of information you will need to provide for your Stage 1 and 2 assessment. We recommend the final column identifies whether a substance has been identified as relevant hazardous substance.

Stage 3 – Assessment of site specific pollution possibility

You must assess the potential pollution risk to soil and groundwater for each RHS for all activities that will take place on your site. For example, production areas, tank farms, fuel storage and warehousing.

The assessment of the potential pollution risk from each RHS needs to include:

- a detailed physical inspection
- their location
- quantity of each one used, produced or released
- location of delivery
- existing pollution prevention measures and whether they are fit for purpose
- the circumstances under which emissions may occur

The EC guidance contains useful detail on this stage.

Use the information you have collected to assess if there is a risk to soil and groundwater from the relevant hazardous substances you have identified. Use a source-pathway-receptor approach.

If a risk is identified, you **must** establish baseline reference data for soil and groundwater for those relevant hazardous substances and you will be required to do periodic soil and groundwater monitoring.

You should provide the information in a table or series of tables for each type of activity on-site for example, production areas, tank farms, warehousing with additional supporting details in the body of the report – i.e. the zone assigned in the site plan.

The supporting information in the report should include a ‘detailed’ summary of the procedures (including document references) and the systems in place within your company environmental management system (EMS) for the inspection and maintenance of all pollution prevention measures.

It is recommended the assessment of existing pollution prevention measures is undertaken using a ‘lines of evidence’ type approach to set out the primary,

secondary and tertiary containment measures and process control measures for example, alarms, manned loading / off loading facilities that are in place to prevent the pollution of soil and groundwater.

Where possible it is useful to refer to asset numbers of tanks and bunds so the assessment can be crossed referenced with the inspection and maintenance programme within your EMS – and the reporting elements of your operational SCR. This should be carried out in the text and table format with reference to the detailed zoned site plan.

Drainage systems, collection pits/sumps, interceptors should also be included in the assessment.

Examples 2 and 3 provide worked examples of the types of information you will need to include.

Example 1: Stage 1 – 2 assessment

Trade name	Hazardous Substance	Composition	Classification Labelling Packaging (CLP) Classification (EC No 1272/2008)	Physical State	Solubility	Toxicity	Mobility	Persistence	Potential to pollute soil and groundwater	Relevant Hazardous Substance
Not applicable	Xylene	Xylene 100%	Physical Hazards Flammable liquids Category 3 (H226) Health Hazards Aspiration Toxicity Category 1 (H304) Acute dermal toxicity	Liquid	Low	High	Med	Yes	Yes. Moderately mobile in soil and may leach into groundwater and be persistent for many years.	Yes

Trade name	Hazardous Substance	Composition	Classification Labelling Packaging (CLP) Classification (EC No 1272/2008)	Physical State	Solubility	Toxicity	Mobility	Persistence	Potential to pollute soil and groundwater	Relevant Hazardous Substance
			Category 4 (H312) Acute Inhalation Toxicity - Vapours Category 4 (H332) Causes skin irritation Category 2 (H315) Causes serious eye irritation Category 2 (H319)							

Trade name	Hazardous Substance	Composition	Classification Labelling Packaging (CLP) Classification (EC No 1272/2008)	Physical State	Solubility	Toxicity	Mobility	Persistence	Potential to pollute soil and groundwater	Relevant Hazardous Substance
			Specific target organ toxicity - (single exposure) Category 3 (H335) Specific target organ toxicity - (repeated exposure) Category 2 (H373) <u>Environmental Hazards</u> Toxic to aquatic life with long lasting effects							

Trade name	Hazardous Substance	Composition	Classification Labelling Packaging (CLP) Classification (EC No 1272/2008)	Physical State	Solubility	Toxicity	Mobility	Persistence	Potential to pollute soil and groundwater	Relevant Hazardous Substance
			Category 4 (H411)							
Not applicable	Sulphuric acid	Sulphuric acid 72% weight solution	<u>Health Hazards</u> Causes severe skin burns and eye damage Category 1A (H314) Causes serious eye damage Category 1 (H318)	Liquid	High	Low	High	Low	Yes. May affect pH in groundwater.	Yes

Example 2: Stage 3 assessment

This example of a tank farm shows the relevant hazardous substance is not a pollution risk to soil and groundwater.

Relevant Hazardous Substance (RHS)	Tank Number	Maximum capacity of tank (tonnes)	Maximum amount stored at site (tonnes)	Maximum amount used annually (tonnes)	Details of existing pollution prevention measures	Is the RHS a pollution risk?
Xylene	T001	25	15	100	<u>Primary containment measures</u> Stainless steel tank seated on concrete plinth. Tank fitted with level indication and alarm system with independent high-level alarm. Tank is inspected and maintained in line with manufacturers guidelines in accordance with Standard Operating Procedure (SOP) 01 Inspection and testing of primary tanks. Tanker off-loading activities are supervised and completed in accordance with SOP 02 Off-loading of bulk chemical road tankers. Instructions identifying destination tank are issued in writing and tank contents are checked before tanker offloaded to confirm sufficient capacity available. <u>Secondary containment measures</u> Tank located in secondary containment bund constructed of reinforced concrete tied into underlying reinforced concrete slab	No

Relevant Hazardous Substance (RHS)	Tank Number	Maximum capacity of tank (tonnes)	Maximum amount stored at site (tonnes)	Maximum amount used annually (tonnes)	Details of existing pollution prevention measures	Is the RHS a pollution risk?
					with a bund liquid alarm detection switch. Bund volume meets CIRIA C736 requirements of a 110% capacity. Sump observed in the bund. This was observed to be in good condition. Bund integrity is tested annually by a certified contractor in accordance with procedure SOP 03 Site Bund Inspections. The removal and disposal of surface water from the bund is completed in accordance with SOP 04 Removal and disposal of surface water from bunds. <u>Tertiary containment measures</u> Offloading area is served by an impermeable concrete surface with containment provision for the entirety of the largest tanker delivery. The surfacing is in good condition. There are no evidence of cracks or damage. Site surfacing is inspected in accordance with procedure SOP 05 Inspection of site surfacing. The tanker unloading area and external hard standing are inspected on a monthly basis. <u>Environmental Management System: Inspections and Procedures</u>	

Relevant Hazardous Substance (RHS)	Tank Number	Maximum capacity of tank (tonnes)	Maximum amount stored at site (tonnes)	Maximum amount used annually (tonnes)	Details of existing pollution prevention measures	Is the RHS a pollution risk?
					Daily checks of all primary, secondary and tertiary containment are completed in accordance with procedure SOP 06 Daily checks for primary, secondary and tertiary containment. Defects logged on the maintenance system and assigned a timescale for repair on a risk basis. A register is maintained via the Environmental Management System to record all inspection, maintenance repair and replacement work for all primary, secondary and tertiary containment including drainage systems to ensure these remain fit for purpose. <u>Emergency response procedure</u> Spill kits observed to be available and training on use provided. Procedures governing the inspection, use and training of spill kits and emergency equipment is documented within procedure SOP 07 Site Spillage Control Equipment and SOP 08 Emergency response equipment. Emergency incidents and spillages are dealt with in accordance with procedure SOP 09 Procedure for dealing with environmental incidents and emergencies.	

Example 3: Stage 3 assessment

This example of a tank farm shows the relevant hazardous substance is a pollution risk to soil and groundwater.

Relevant Hazardous Substance (RHS)	Tank Number	Maximum capacity of tank (tonnes)	Maximum amount stored at site (tonnes)	Maximum amount used annually (tonnes)	Details of existing pollution prevention measures	Is the RHS a pollution risk?
Sulphuric Acid (72% weight solution)	T002	8	5	20	<u>Primary containment measures</u> High density polyethylene tank (HDPE) seated on concrete plinth Tank fitted with level indication and alarm system with independent high-level alarm. Tank is inspected and maintained in line with manufacturers guidelines in accordance with procedure SOP 01 Inspection and testing of primary tanks. Tanker off-loading is supervised but no formal procedure is in place detailing instructions to be followed. <u>Secondary containment measures</u> Tank located in secondary containment. Bund constructed of reinforced concrete tied into underlying reinforced concrete slab. Extensive loss of surface observed on bund wall and base slab revealing exposed aggregate. Hairline cracks observed in bund wall. Rainwater in bund observed to be permeating into bund wall	Yes

Relevant Hazardous Substance (RHS)	Tank Number	Maximum capacity of tank (tonnes)	Maximum amount stored at site (tonnes)	Maximum amount used annually (tonnes)	Details of existing pollution prevention measures	Is the RHS a pollution risk?
					at base. No corrosive protective coating observed on bund walls or base slab. Bund volume does not meet CIRIA C736 requirements of a 110%. Given these observations there is a medium – high potential that soil and groundwater may be potentially impacted. Bund integrity testing is not completed by a certified contactor. Integrity assessed via daily checks only. No formal procedure in place for bund integrity assessment checks or for the removal and disposal of rainwater in the bund. <u>Tertiary containment measures</u> Offloading area is served by a concrete and tarmac surface. Any spills are likely to seep through the permeable tarmac surface and corrode the tarmac due to the corrosive nature of the substance and migrate into soil and groundwater. Joints within the concrete observed to be unsealed and cracks observed potentially creating a pathway for any spills to migrate into the soil and groundwater. No containment provisions are in place for spillages or loss of entire tank load. Any spills are likely to enter nearby surface water drains and potentially impact any receiving water bodies. There is	

Relevant Hazardous Substance (RHS)	Tank Number	Maximum capacity of tank (tonnes)	Maximum amount stored at site (tonnes)	Maximum amount used annually (tonnes)	Details of existing pollution prevention measures	Is the RHS a pollution risk?
					no information on the integrity of the surface water drains. Due to the corrosive nature of the substances this may corrode the drains and potentially impact soil and groundwater. <u>Environmental Management System: Inspections and Procedures</u> Daily checks of all primary, secondary and tertiary containment are completed, and defects logged on the maintenance system and assigned a timescale for repair on a risk basis. No formal procedure in place documenting daily checks for primary, secondary and tertiary containment. A register is maintained via the Environmental Management System to record all inspection, maintenance repair and replacement work for all primary, secondary and tertiary containment including drainage systems. <u>Emergency response procedure</u> Spill kits observed to be available and training on use provided. Procedures governing the inspection, use and training of spill kits and emergency equipment is documented within	

Relevant Hazardous Substance (RHS)	Tank Number	Maximum capacity of tank (tonnes)	Maximum amount stored at site (tonnes)	Maximum amount used annually (tonnes)	Details of existing pollution prevention measures	Is the RHS a pollution risk?
					procedure SOP 02 Site Spillage Control Equipment and SOP 03 Emergency response equipment. Emergency incidents and spillages are dealt with in accordance with procedure SOP 04 Procedure for dealing with environmental incidents and emergencies.	