

Notes on IED Baseline Reporting for Permit Reviews

IED requires an assessment to be carried out for all hazardous substances used, produced or released within the installation. Where a risk to soil and groundwater is identified baseline conditions **must** be established and soil and groundwater monitoring carried out during the life of the permit.

All sites must follow stages 1 to 3 below to assess if a baseline report is required. Note that sites who applied for a permit after 2013 should check whether they have already done the baseline report assessment.

A baseline report must contain the information necessary to determine the state of soil and groundwater contamination so as to enable a quantified comparison to be made at the time of permit surrender. Where existing measurements are not available new measurements, having regard to the possibility of soil and groundwater contamination by those hazardous substances to be used, produced or released by the installation, must be included.

EU Guidance on how to produce a baseline report is available [here](#) and this is the most useful reference document as it provides detail on the stages of assessment given below.

Definition of Relevant Hazardous substances:

‘**Relevant hazardous substances**’ (Article 3(18) and Article 22(2), first subparagraph) are those substances or mixtures defined within Article 3 of Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) which, as a result of their hazardousness, mobility, persistence and biodegradability (as well as other characteristics), are capable of contaminating soil or groundwater and are used, produced and/or released by the installation

Stage 1 – Identify hazardous substances on-site: You should first produce an inventory of all chemicals and potentially polluting liquids used or held inside the installation boundary. These can be raw materials, products, intermediaries, emissions or wastes, and should be associated with the regulated activity/ies. You should then determine which of the substances are classified as hazardous substances (product safety data sheets are a useful reference). Hazardous substances are defined in the article 3 of the Classification, labelling and packaging of substances and mixtures regulations. This is interpreted as a substance or a mixture of substances that meet the criteria relating to physical, health or environmental hazards. These criteria are given in Parts 2 to 5 of Annex I of the IED. You can search for substances to help to find out if they are hazardous on the [European Chemicals Agency](#) (ECHA) website. Where substances are listed as trade names include the chemical constituents. For mixtures or compounds, use the relative proportion of the largest constituent chemicals. You should record the hazard properties of each.

Stage 2 – Identify relevant hazardous Substances: The aim of stage 2 is to identify which of the hazardous substances you have listed in stage 1 are capable of causing soil and groundwater contamination. If this is possible, they are then called relevant hazardous substances (RHS).

To identify RHS, consider the chemical and physical properties of each hazardous substance such as its:

- composition,
- solubility,
- toxicity,
- mobility,
- persistence,
- physical state (solid, liquid or gas)

Where a group of substances display similar characteristics they may be considered together, and you should provide justification for the grouping.

Use this information to determine if the substance has the potential to cause pollution of soil and groundwater at your site. If this is the case, they are then called relevant hazardous substances (RHS) and a baseline report is required.

You must provide justification if any the identified hazardous substances from stage 1 do not pose a risk to soil and groundwater.

Note, existing pollution prevention measures and management procedures are not considered at this stage. 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 RHS (ie a substance with a pollution potential).

Stage 3 – Assessment of site specific pollution possibility: The aim of stage 3 is to identify if there is a risk of pollution to soil and ground of the RHS identified in stage 2 water. Use a source-pathway-receptor approach to assess the likelihood and significance of a release of each RHS occurring.

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

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

The [EU guidance](#) contains useful detail on this stage. Where your risk assessment shows that there is no significant possibility for contamination of soil/GW, or where risks are sufficiently mitigated, then a BR is not required.

Where you assess that a BR is not required, you must make a record of this decision including the reasons why and submit it in response to the Regulation 61 Notice.

The EA will review the findings of your Stage 1 – 3 assessment. If we do not agree with your assessment we will notify you and ask for further information.

If a baseline report is required (ie RHS have been identified which present a pollution risk), it is possible or likely that some of the original Site Condition Report (SCR) information covers the requirements of the BR, in which case your submission in response to the Notice can refer to the original SCR with the additional baseline information included.

If you have no baseline data, it is advisable to re-assess whether data is required for other potentially polluting substances.

NOTE: this only applies to those substances which may be released from the permitted activity. Other substances which may be present as a result of historic activities but will not be used at the installation are not relevant to the baseline report, even though they may be of interest to the Operator.

Further information on Site condition and baseline reports is available in our [H5 Site condition report guidance](#).

The requirements for when you want to ultimately surrender the permit will also have to be considered throughout

If you are required to produce a baseline report, then you should update your Site Condition Report (SCR), originally produced for your permit application, to incorporate the baseline report.