

# **Pollution Prevention and Control Regulations**

## **H5 - Site Report Guidance and Template for Applicants and Operators**



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First published Jan 2012

**Record of changes**

<b>Version</b>	<b>Date</b>	<b>Change</b>
1.0	Jan 2012	First Issue.

## **1.0 GUIDANCE**

A site report is required to satisfy requirements of the Pollution Prevention and Control Regulations (NI) 2003. This guidance applies to both new installation and existing installations. This document will help you prepare and maintain a site report over the lifetime of a site.

The Site Report is not applicable to parts of a permitted landfill that have permanent deposits of waste.

## **2.0 WHAT IS A SITE REPORT?**

A Site Report describes and records the condition of the land and groundwater at a site. It will enable baseline conditions of the land and groundwater to be established and subsequently enable you to demonstrate that you have protected the land and groundwater and it is in a satisfactory state when you come to surrender your permit. You can demonstrate this by:

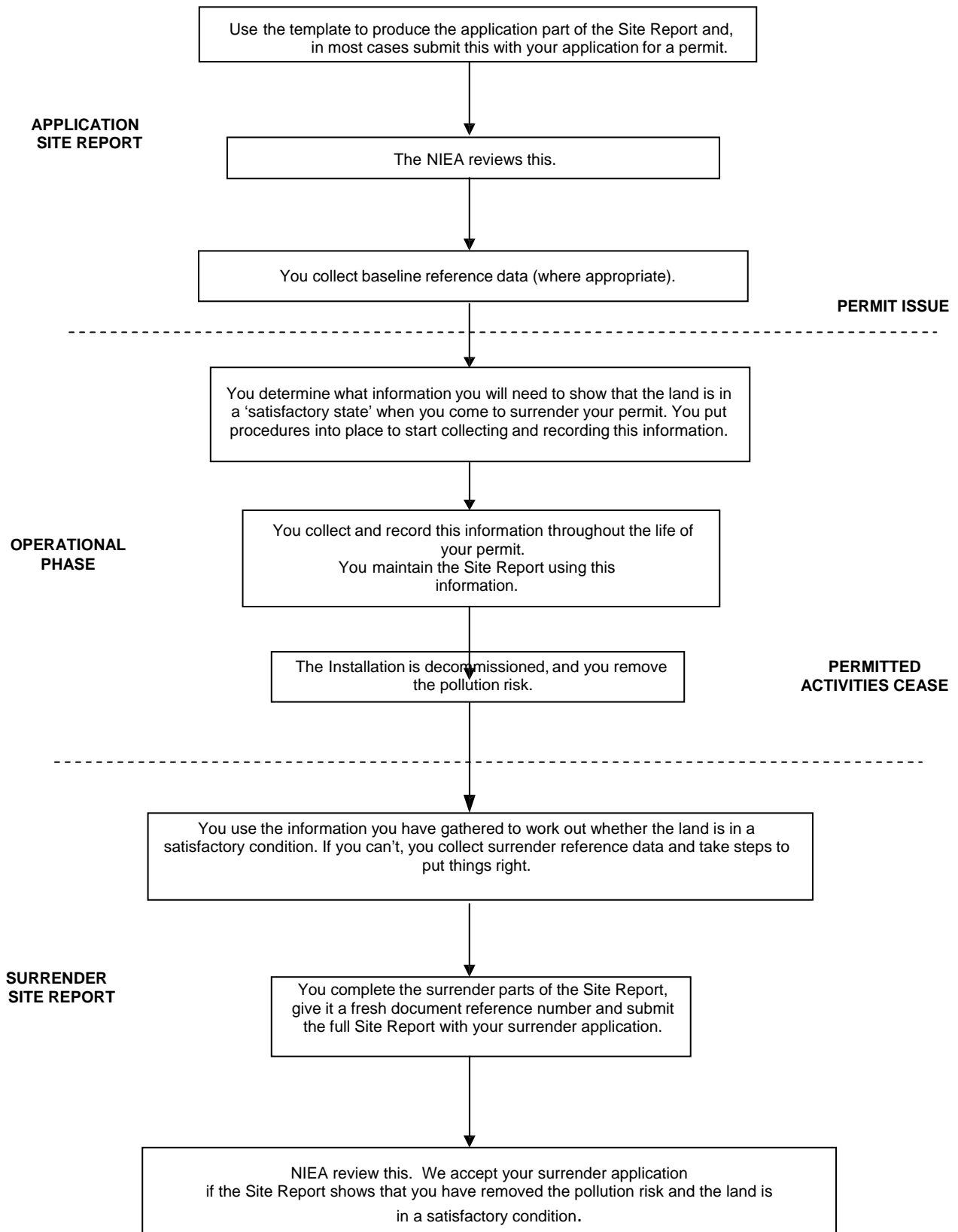
- Producing the application part of the Site Report when you first apply for a permit.
- Updating the Site Report during the lifetime of your permit.
- Completing the surrender parts and submitting the full completed Site Report when you apply to surrender your permit.

In the Site Report, you will describe what condition the land and groundwater are in at the time of surrender. If the land and groundwater are not in a satisfactory state, we will not accept your application to surrender your permit.

### **Why do you need to produce a Site Report?**

You need a point of reference at the start of operations or at the time the permit is issued so that when you want to surrender the permit you can determine if there has been any additional contamination of the site during the operation and ensure that the condition of the land and groundwater are in a “satisfactory state” when you apply to surrender the permit.

## Outline of the stages in the Site Report process



### 3.0 APPLICATION SITE REPORT

The application part of the Site Report describes the condition of the land and groundwater at the point at which you apply for a permit. To produce an Application Site Report you should complete the attached template. The red text in the boxes tells you what sort of information to include. Replace the red text with your own. The template also lists the supporting information you will need to supply. If you have already given us the information in your application, then you can simply provide the specific document references.

**Note, it will be important that you keep these reference documents readily available, as you will need to refer to them through the life of the permit and at surrender.**

The amount of detail we want you to give will depend on the type of activity and its environmental setting. You are required to produce an environmental risk assessment to support your application.

In this risk assessment you must have identified all the hazards from your activities and everything that can be affected by those hazards (including the land and groundwater). In particular, you must list all the potential fugitive emissions.

You must consider the land use and pollution history of your site. You may find that the land and groundwater could already be contaminated with substances that have been identified as hazards in your risk assessment. Where these hazards exist, and you have identified in your risk assessment a way that these substances could reach the land and groundwater (a pathway), we recommend that you take samples of soil or groundwater and measure levels of contamination, in order to provide baseline data characterising the site. If you don't collect this information then, when you apply to surrender your permit we may have to consider that any contamination found was caused during the lifetime of the permit and require you to undertake remediation.

We think that you should take samples of soil or groundwater and measure levels of contamination where there is evidence that there is, or could be, existing contamination and:

- your environmental risk assessment has identified that historic and potential future materials brought on site are coincident and your risk assessment has identified a possible pathway to the land or groundwater;  
or
- there is a risk of pollution migrating on site from other sources such as a neighboring site.

We think that it may not be essential to take samples of soil or groundwater and measure levels of contamination where:

- your environmental risk assessment identifies no hazards to land or groundwater;  
or
- where your environmental risk assessment identifies only limited hazards to land and groundwater and there is no reason to believe that there could be historical contamination by those substances that present the hazard;  
or
- where your environmental risk assessment identifies hazards to land and groundwater but there is evidence that there is no historical contamination by those substances that pose the hazard.

Where sampling is to be undertaken, you will need to decide whether you need to sample the groundwater as well as the soil. You should use your environmental risk assessment to decide this, based on the sensitivity of the groundwater and the pathway from your site to the groundwater.

When you need samples of soil or groundwater and measure levels of contamination, you should discuss this with the agency prior to carrying out, so as to ensure sampling and analyses meet the required standards.

## 4.0 THE OPERATIONAL PHASE

When you apply for your permit, you should set out how you will ensure that land and groundwater are protected and will be left in a satisfactory condition. You then need to collect and record this information throughout the life of the permit. Many of these records are required by the permit conditions.

The information needed will vary from site to site. But it will need to show that the measures you took to protect the land and groundwater have worked. It needs to show how you investigated and sorted out any pollution incidents that may have affected the land or groundwater.

You may also decide to monitor the quality of the soil, gas and/or water during the life of the permit. If these show that the site's condition has deteriorated, you will need to investigate and remedy this.

When the site has been decommissioned and pollution risks removed, you will need to show that this process itself has not polluted the land and groundwater. If it has, you will need to show how you investigated and resolved the problem.

All of this information will be relevant at surrender. Therefore, you must keep your records up to date. We advise you maintain your site report, with links to the various application documents and operational records, as this will make it easier at surrender.

## 5.0 SURRENDER SITE REPORT

The surrender part of the site report describes the condition of the land and groundwater at the point at which you apply to surrender your permit. It must provide the evidence to convince us that your site does not pose a pollution risk and is in a satisfactory state.

To produce a Surrender Site Report you should complete the attached template. It should contain statements that summarise the information you recorded during the life of the permit. Provide supporting information as an Appendix. If you've already given us this information, cross-reference it in the Surrender Site Report.

You may be able to say that the land and groundwater haven't deteriorated, and are therefore in a satisfactory state, if your evidence shows that:

- measures to protect land and groundwater have worked;
- you investigated and remedied pollution incidents that may have affected land;
- you monitored soil, gas or water and you investigated and remedied any deterioration found;

and

- you investigated and remedied any risk of pollution caused by decommissioning.

### **Is an intrusive investigation needed?**

If your records are not complete and it is considered that your activity may have had an impact on the land or groundwater, then taking samples of soil or groundwater and measuring levels of contamination is likely to be the only way in which you will be able to demonstrate whether the condition of the land is satisfactory. If in doubt, it is suggested that you discuss the adequacy of your records prior to submitting your surrender application and Site Report.

We would expect you to take samples of soil or groundwater and measure levels of contamination where the criteria listed in Box 1 apply.

**Box 1: When an intrusive investigation is required at surrender**

1. You sampled the soil or groundwater at the time you applied for the original permit.  
or
2. Your risk assessment identified that your activity presented a high risk to land or groundwater and one of the following applies:-
  - (a) Your records of the pollution prevention measures employed and their effectiveness at the site are incomplete.
  - (b) Your records of the occurrence and remediation of pollution incidents are incomplete.
  - (c) The records show compliance issues with respect to matters that may affect the condition of the land such as spills and leaks of polluting substances.

When you need samples of soil or groundwater and measure levels of contamination, you should discuss this with the agency prior to carrying out, so as to ensure sampling and analyses meet the required standards.

**Do you need to remediate?**

You must consider all the evidence gathered in the Surrender Site Report and compare this to the reference information to see whether the land has deteriorated. If you sampled the soil and groundwater for baseline reference purposes, you should use this information. If not you must compare any sampling information in the surrender site report to other reasonable levels, for example, the expected background concentrations of the substance.

If the land has deteriorated because of the permitted activities, you need to take steps to restore it to the original condition as far as practicable.

We don't expect you to address historic contamination, or that caused by non-permitted activities. However, if we believe that it is reasonable to attribute contamination to your permitted operations then we will require you to take all practical steps to remediate that contamination.

## SITE REPORT TEMPLATE

**COMPLETE SECTIONS 1-3 AND SUBMIT WITH APPLICATION.  
DURING THE LIFE OF THE PERMIT: MAINTAIN SECTIONS 4-7.  
AT SURRENDER: ADD NEW DOC REFERENCE IN 1.0; COMPLETE SECTIONS 8-10; AND SUBMIT WITH YOUR SURRENDER APPLICATION.**

<b>1.0 SITE DETAILS</b>	
Name of the applicant	
Activity address	
Irish grid reference	
Document reference(s) and dates for Site Report at permit application or surrender (where appropriate).	
Document references for site plans (including location and boundaries)	

**Note:**

As part of your application you must give us details of the site's location and provide us with a site plan. We need a detailed site plan (or plans) showing:

- Site location, the area covered by the Site Report, and the location and nature of the activities and/or waste facilities on the site.
- Locations of receptors, sources of emissions/releases, and monitoring points.
- Site drainage.
- Site surfacing.

If this information is not shown on the site plan required as part of your application form then you should submit the additional plan or plans with this Site Report.

<b>2.0 Condition of the land at permit issue</b>	
Environmental setting including: <ul style="list-style-type: none"><li>• geology</li><li>• hydrogeology</li><li>• surface waters</li><li>• activities/installations neighboring site</li></ul>	

Pollution history including: <ul style="list-style-type: none"> <li>• pollution incidents that may have affected land</li> <li>• historical land-uses and associated contaminants</li> <li>• any visual/olfactory evidence of existing contamination</li> <li>• evidence of damage to pollution prevention measures</li> </ul>		
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)		
Baseline soil and groundwater reference data		
<b>Supporting information</b>	<ul style="list-style-type: none"> <li>• Source information identifying environmental setting and pollution incidents</li> <li>• Historical Ordnance Survey plans</li> <li>• Site reconnaissance</li> <li>• Historical investigation / assessment / remediation / verification reports</li> <li>• Baseline soil and groundwater reference data</li> </ul>	

<b>3.0 Permitted activities</b>	
Permitted activities undertaken	
Non-permitted activities undertaken	
Document references for: <ul style="list-style-type: none"> <li>• plan showing activity layout; and</li> <li>• environmental risk assessment.</li> </ul>	

**Note:**

In the application form you must tell us about the activities that you will undertake at the site. You must provide an environmental risk assessment. This risk assessment methodology should be discussed and agreed with the agency.

It is essential that you identify in your environmental risk assessment all the substances used and produced that could pollute the land or groundwater if there were an accident, or if measures to protect land and groundwater fail.

These include substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) regulations and also raw materials, fuels, intermediates, products, wastes and effluents.

If your submitted environmental risk assessment does not adequately address the risks to land or groundwater we may need to request further information from you or even refuse your permit application.

<b>4.0 Changes to the activity</b>	
<b>Have there been any changes to the installation boundary?</b>	If yes, provide a plan showing the changes to the activity boundary.
<b>Have there been any changes to the permitted activities?</b>	If yes, provide a description of the changes to the permitted activities
<b>Have any “Dangerous Substances” not identified in the application Site Report been used or produced as a result of the permitted activities?</b>	If yes, list them
<b>Checklist of supporting information</b>	<ul style="list-style-type: none"> <li>• Plan showing any changes to the boundary (where relevant)</li> <li>• Description of the changes to the permitted activities (where relevant)</li> <li>• List of ‘dangerous substances’ used/produced by the permitted installation that were not identified in the Application Site Report (where relevant)</li> </ul>

<b>5.0 Measures taken to protect land and groundwater</b>	
Use records that you collected during the life of the permit to summarise whether pollution prevention measures worked. If you can't, you need to collect land and/or groundwater data to assess whether the land has deteriorated.	
<b>Checklist of supporting information</b>	<ul style="list-style-type: none"> <li>• Inspection records and summary of findings of inspections for all pollution prevention measures</li> <li>• Records of maintenance, repair and replacement of pollution prevention measures</li> </ul>

<b>6.0 Pollution incidents that may have had an impact on land or on groundwater and their remediation</b>	
Summarise any pollution incidents that may have damaged the land or groundwater. Describe how you investigated and remedied each one. If you can't, you need to collect land and /or groundwater reference data to assess whether the land has deteriorated while you've been there.	
<b>Checklist of supporting information</b>	<ul style="list-style-type: none"> <li>• Records of pollution incidents that may have impacted on land</li> <li>• Records of their investigation and remediation</li> </ul>

<b>7.0 Soil gas and water quality monitoring (where undertaken)</b>	
<p>Provide details of any soil, gas and/or water monitoring you did. Include a summary of the findings. Say whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how you investigated and remedied this.</p>	
<b>Checklist of supporting information</b>	<ul style="list-style-type: none"> <li>• Description of soil, gas and/or water monitoring undertaken</li> <li>• Monitoring results (including graphs)</li> </ul>

<b>8.0 Decommissioning and removal of pollution risk</b>	
<p>Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how you investigated and remedied this.</p>	
<b>Checklist of supporting information</b>	<ul style="list-style-type: none"> <li>• Site closure plan</li> <li>• List of potential sources of pollution risk</li> <li>• Investigation and remediation reports (where relevant)</li> </ul>

<b>9.0 Reference data and remediation (where relevant)</b>	
<p>Say whether you had to collect land and/or groundwater data. Or say that you didn't need to because the information from sections 3, 4, 5 and 6 of the surrender Site Report shows that the land has not deteriorated.</p> <p>If you did collect land and/or groundwater reference data, summarise what this entailed, and what your data found. Say whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, summarise what you did to remedy this. Confirm that the land is now in a "satisfactory state" at surrender.</p>	
<b>Checklist of supporting information</b>	<ul style="list-style-type: none"> <li>• Land and/or groundwater data collected at application (if collected)</li> <li>• Land and/or groundwater data collected at surrender (where needed)</li> <li>• Assessment of satisfactory state</li> <li>• Remediation and verification reports (where undertaken)</li> </ul>

<b>10.0 Statement of site condition</b>	
<p>Using the information from sections 3 to 7, give a statement about the condition of the land at the site. This should confirm that:</p> <ul style="list-style-type: none"> <li>• the permitted activities have stopped</li> <li>• decommissioning is complete, and the pollution risk has been removed</li> <li>• the land is in a satisfactory condition.</li> </ul>	

## **6.0 Additional information and guidance**

### **6.1 - Site Investigation**

- British Standards Institution, "Site Investigations" Code of Practice BS 5930.
- British Standards Institution "Investigation of potentially contaminated site" – Code of practice BS 10175.
- BS ISO 11504. Soil quality. "Assessment of impact from soil contaminated with petroleum hydrocarbons."
- BS ISO 15175. Soil quality. "Characterization of soil related to groundwater protection."

### **6.2 - Risk Assessments**

- British Standards Institution, "Risk Management - Code of Practice" BS 31100.
- BS EN 31010:2010 Risk Management "Risk assessment Techniques".
- Environment Agency 2010, Horizontal guidance note H1- Environmental risk assessment for permits.

### **6.3 - Sampling**

- BS ISO 5667, Water quality - Sampling. Part 11 "Guidance on the design and installation of groundwater monitoring point".
- BS ISO 5667, Water quality - Sampling. Part 18 "Guidance on sampling of groundwater at contaminated sites" BS ISO 5667, Water quality - Sampling. Part 6 "Guidance on sampling of rivers and streams".
- BS ISO 10381, Soil quality - Sampling. Parts 1 to 6.

### **6.4 - Conceptual Site modeling**

- National Groundwater & Contaminated Land Centre report NC/99/38/2.
- "Guide to Good Practice for the Development of Conceptual Models and the Selection and Application of Mathematical Models of Contaminant Transport Processes in the Subsurface".

### **6.5 - Management Systems**

- BS EN ISO 14001:2004 "Environmental management systems – Requirements with guidance for use" BS EN ISO 9001:2008 "Quality management systems. Requirements".

### **6.6 - Guidance from other agencies.**

- Scottish Environment Protection Agency, PPC Technical Guidance Note - Content and Scope of Site Reports.
- Environment Agency, Guidance for Applicants H5, Environmental Permitting Regulations, Site condition report - guidance for applicants.
- Environment Protection Agency, ROI, IPC Guidance Note on Storage and Transfer of Materials for Scheduled Activities.