ENVIRONMENT AGENCY

INTEGRATED POLLUTION PREVENTION AND CONTROL (IPPC)

PART A(1) INSTALLATIONS:

GUIDE FOR APPLICANTS FOR PIG AND POULTRY REARING UNITS

PIG AND POULTRY REARING INSTALLATION WITH MORE THAN:
40,000 places for poultry; or
2,000 places for production pigs (over 30 kg); or
750 places for sows.

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Note:

This document is part of the Agency package for Farming applicants. An equivalent document was produced for other sectors in August 2000 with the entry into force of the PPC Regulations, and revised in December 2000 following consultation.

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Purpose of this guide

This Guide is intended to help if you are on a farm subject to regulation by the Environment Agency under the regime of **Integrated Pollution Prevention and Control** (IPPC). IPPC applies to farms used for the intensive rearing of pigs or poultry. The threshold for such farms to be regulated under IPPC is:

- 40,000 places for poultry; or
- 2,000 places for production pigs (over 30 kg); or
- 750 places for sows.

This guide provides a brief introduction to IPPC and explains where you can find more detailed information. It then gives advice on how to prepare applications for **new permits** - to allow new installations to operate when they first come under IPPC.

What is Integrated Pollution Prevention and Control?

IPPC is a regulatory system that employs an integrated approach to control the environmental impacts of certain industrial activities. It applies to many industrial sectors, including the intensive farming of pigs and poultry.

The Agency intends to implement IPPC to:

- protect the environment as a whole;
- promote the use of "clean technology" to minimise waste at source ;
- encourage innovation, by leaving significant responsibility for developing satisfactory solutions to environmental issues with Operators; and
- provide a "one stop shop" for administering applications for permits to operate.

It involves determining the appropriate controls for farm units to protect the environment through a single process. To gain a permit, Operators will have to show that they have systematically developed proposals to apply the "Best Available Techniques" (BAT) and meet certain other requirements for environmental protection, taking account of relevant local factors. The essence of BAT is that the selection of techniques to protect the environment should achieve an appropriate balance between realising environmental benefits, and the costs incurred by Operators.

Once a permit has been issued, other parts of IPPC may come into play. These include compliance monitoring, periodic permit reviews, variations of permit conditions and transfers of permits between Operators. IPPC also requires the restoration of sites when the permitted activities cease.

IPPC operates under the Pollution Prevention and Control (England and Wales) Regulations 2000, Statutory Instrument (SI) 2000/1973 (the PPC Regulations). These Regulations have been made under the Pollution Prevention and Control (PPC) Act 1999 and implement the EC Directive 96/61 on IPPC. Further information on the overall system of IPPC, together with Government policy and more detailed advice on the interpretation of the Regulations, can be found in the DETR document *IPPC: A Practical Guide*. Annex A to this Guide explains where copies of the Regulations, *IPPC: A Practical Guide* and other documents can be obtained from.

Does IPPC apply to you?

IPPC applies to you if you are the "Operator" of the whole or part of an IPPC installation. The PPC Regulations define an **Operator** as the person who has control over the operation of the installation (or who will have such control if the installation is not yet operating). The Operator may be a "legal person" (such as a company) or a "natural person" (an individual). The Operator must be an appropriate person to fulfil the obligations that arise under the permit.

How to use this guide

The Guide should be used as part of an overall "regulatory package" which comprises several elements.

Within this package:

- the IPPC Directive, PPC Act and PPC Regulations set the main legal framework;
- other legislation - for example laws setting Environmental Quality Standards (EQSs) or sector-specific controls - may bear upon the application of IPPC in individual cases;
- the Standard Farming Installation (SFI) Rules give details of the operational and environmental requirements for animal units.
- *IPPC: A Practical Guide* sets out the Government's policies on how IPPC should be applied and how particular terms should be interpreted; other government guidance will also be relevant in some cases, for example Circular 11/94 which is relevant to some waste management installations;
- the Environment Agency's Application Form for intensive animal units provides a structured basis for the various kinds of applications to the Agency; and
- the Agency's IPPC Guidance explains what will normally be expected of Operators , through "Sector Specific Technical Guidance", or through cross-sectoral "Horizontal Guidance" on general topics such as noise or energy. Such guidance will take account of the European Union BAT Reference (BREF) notes that are being published by the Commission.

Annex A provides a list of guidance notes published by the Agency that are relevant to IPPC in general and pig and poultry units in particular.

This Guide describes the main provisions of IPPC that relate to the making of applications to be determined by the Environment Agency. It explains what is involved in obtaining a permit, and what happens after a permit has been issued in relation to variations, transfers and surrender. It provides advice, in particular, on how to use the Application Form and the related Technical Guidance.

Getting a New IPPC Permit

When do you need to apply for a new permit?

When you should apply for a new permit will depend on whether your installation is "new" or "existing". These terms are defined in the PPC Regulations and explained in *IPPC: A Practical Guide*.

When do you need to apply for a permit for a new installation?

A **new installation** cannot be brought into operation until an IPPC permit has been granted[1]. For pig and poultry units this would include the keeping of livestock within a newly constructed unit.

IPPC: A Practical Guide suggests that an Operator should normally submit an IPPC application when full designs have been drawn up but before any construction commences. This will minimise the possibility of investment that does not meet the standards required. If you have already introduced the techniques that you propose in your application, but the Agency judges them inadequate, the expenditure that you have already made will not be relevant to the determination of whether you meet the BAT criteria. This is a matter for your commercial risk.

It may be possible to time your IPPC application alongside other submissions required under other regimes. If planning permission is also required, the IPPC and planning applications should be submitted in parallel whenever possible.

When do you need to apply for an existing installation?

Existing installations will come under IPPC in one of three ways. These are described in *IPPC: A Practical Guide*. They are:

- permitting according to a transitional schedule;
- permitting ahead of the transitional schedule by agreement; or
- permitting ahead of the transitional schedule in the case of a "substantial change''.

The transitional schedule is set out in the PPC Regulations. For pig and poultry units the transitional schedule dates are 1 November 2006 to 31 January 2007. During this period, applications must be submitted for any farms not previously brought under IPPC.

You may wish to apply for a permit ahead of the transitional schedule. To do this, you must first gain the agreement of the Environment Agency. The system would become overloaded if everyone were to apply for permits early. Therefore, *IPPC: A Practical Guide* indicates that any Operator wishing to come into IPPC early should demonstrate how they would be disadvantaged if this were not permitted.

If you wish to make a "substantial change" to an existing installation ahead of the relevant period, you will have to apply for a permit. A "substantial change" is any change in operation that may have a significant negative effect on human beings or the environment. Responsibility for assessing the effects of any potential change lies with the Operator. However, determining whether or not any negative effects are significant will be a matter for the Agency's judgement based on the facts of the case. *IPPC: A Practical Guide* sets out broad principles underlying this judgement. The Agency has developed more detailed internal guidance on this issue. This is available on the Environment Agency's website (www.environment-Agency.gov.uk) so that Operators can assess changes in the same way as the Agency.

[1] In *IPPC: A Practical Guide* the Secretary of State has indicated that "operation" in this context should be taken to mean operation intended for beneficial production - which is significantly more than the first stages of commissioning.

What happens after a permit has been issued?

Getting a permit is only the first step of the overall regulatory process. Once a permit has been issued, other aspects of the regulatory regime come into play. The main parts are outlined below.

♦ *Compliance*

You must comply with the conditions of your permit. The Agency will carry out inspections. We may take various actions to enforce compliance, including serving enforcement notices, suspending operation, bringing prosecutions and, in rare cases, revoking the permit.

If you receive a permit, you will remain responsible for the obligations arising under it (including the payment of fees) unless and until we:

- accept the transfer of the permit to another Operator;
- accept the surrender of the permit; or
- revoke the permit.

♦ *Permit reviews*

From time to time we will review the conditions of your permit. This may lead to a variation of the conditions (see below). Guidance notes published by the Agency set out the normal review periods that are appropriate for installations in each sector. However, we can review your permit at different times, depending on circumstances.

♦ *Changes and variations*

Once you have a permit, you may wish to change the way you operate your farm. As long as this does not conflict with any requirements of your permit, you may submit a simple notification informing us of the proposed change. This notification process is set out in the PPC Regulations and described in *IPPC: A Practical Guide*.

If you wish to make a change that would require a variation to any part of your permit, you must make an application. The Environment Agency may also initiate a variation, for example following a permit review. The Agency may additionally consolidate a permit if, for instance, the permit has been amended several times.

♦ *Permit transfers*

It is an offence to operate an installation without being the holder of a permit. If you wish to transfer your permit, in whole or in part, to another Operator, you and the proposed transferee must make a joint application. Any transfers must be approved **before** they take place.

♦ *Closure and site restoration (Decommissioning)*

If you cease or intend to cease operating the whole or part of your installation, you may apply to surrender the corresponding part of your permit. As part of your application to surrender, you will need to give us a site report describing the state of the land on closure. This, together with the site report that you submitted with your permit application, and operational records, will indicate any steps that need to be taken to avoid any pollution risk and return the site to a satisfactory state.

♦ *Public information*

The Environment Agency is required to place various items related to installations on the public register. These include the permit, monitoring data, details of enforcement actions, and all particulars of any variation, transfer or surrender, as well as the original applications. There are some exceptions on the grounds of commercial confidentiality and national security.

Making an Application

How do you make an application?

You can make any application by completing the Agency's Application Form for pig and poultry units. You can obtain the form by telephoning 0845 933 3111 or from the Agency's website at www.environment-agency.gov.uk.

The form has been designed to reflect the requirements for applications in the PPC Regulations. Please complete it in black ink, then submit it and all other relevant information to the Agency. You may also need to submit a fee under the Agency's PPC charging scheme. There are questions on the form that will help you to calculate the appropriate fee.

You may apply for a permit to operate a pig and poultry installation under one of three categories:

- An application using the Standard Farming Installation Rules;
- An application requiring a site specific permit where the Standard Farming Installation Rules do not apply and which is considered 'small' (i.e. the unit has less than or equal to 10 times the threshold number of places for any category of animals specified in the PPC Regulations);
- An application requiring a site specific permit where the Standard Farming Installation Rules do not apply and which is considered 'large' (i.e. the unit has more than 10 times the threshold number of places for any category of animals specified in the PPC Regulations.

Applications using the SFI Rules will pay a smaller application fee (see Part F). They will also find it easier to complete their application, as the SFI Rules provide clear information on each issue to be addressed by the applicant.

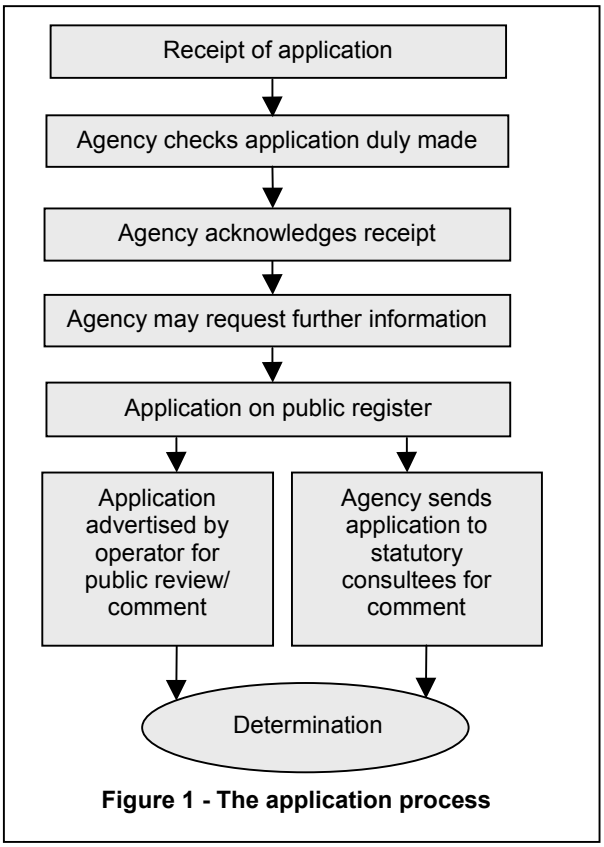

Figure 1 - The application process

What should you do before you apply?

Before you make any application - whether for a new permit, variation, transfer or surrender - you should:

- check that you are required to make an application and understand the requirements of the legislation; and
- read through the appropriate parts of the Application Form and the relevant associated Technical Guidance documents.

Before you prepare an application you may wish to discuss it with the Agency. That way we may help to clarify important issues like whether or not you actually need to make an application and how to present the information required. The Agency can only put limited time into such discussions in order to be able to divide its attention fairly between different Operators.

What will the Agency do with your application?

The application process is shown in Figure 1. Details of the various elements are described below.

♦ *Checking whether the application is duly made*

The Environment Agency will check that an application is duly made in accordance with the PPC Regulations. This depends on whether the application as initially submitted is complete in a legal sense, such that the Agency is able to process it. For the Agency to consider an application duly made, the main requirements are that it should:

- use the Agency's Application Form;
- relate to an installation which is subject to regulation by the Agency under IPPC;
- be submitted with the Agency's prior consent where required (i.e. for a permit for an existing installation submitted ahead of the normal transitional schedule without proposing a substantial change);
- be accompanied by the necessary fee; and
- address all of the necessary points.

If we think an application is not duly made, we may return it to you and will provide an explanation.

- If you apply for a ***permit for a new installation*** you cannot normally bring the installation into operation until a permit has been granted. We cannot issue a permit until we have received an application that is duly made.
- If you apply for a ***permit for an existing installation*** your application must be duly made no later than 31 January 2007 if you wish to continue operating while we process the application. If an application is not duly made until after the relevant period, it will be an offence to operate the installation until a permit is issued.
- If you apply for a permit for an **installation where substantial change is being made** you cannot normally make the change until the permit has been granted. We cannot issue a permit until we have received an application that is duly made.

- With an application for a ***variation, transfer or surrender***, you can continue operating if the application is not duly made but only in accordance with your current permit.

♦ *Acknowledging receipt*

If we are satisfied that the application is duly made we will acknowledge it and, if you request, send a receipt for the fee. We will also give you a contact name and telephone number for someone in the Agency.

♦ *Further information*

We have structured the Application Form, the SFI Rules and guidance in a way that aims to help you provide all of the information needed. However, in some cases we may need to request further information from you before we can determine your application. Where this is the case, we will send you a notice specifying the information required and the period allowed for its submission. If you think you will not be able to provide the information or respond by the date specified, you should let us know us soon as possible. Failure to provide an adequate or timely response may lead us to judge that your application has been withdrawn.

♦ *Public register*

We will put a copy of your application and any further information that relates to it on the public registers, excluding any details that have been determined to be commercially confidential or affect national security. We will also provide copies of the information for inclusion on public registers maintained by Local Authorities. If there is to be public consultation on your application (see below), we will tell you the address of the public registers. You will need to know this in advertising your application.

♦ *Consultation*

The law requires that we consider comments from the public and "statutory consultees" before we determine all new permit applications and for all variations involving a "substantial change". We may also undertake consultation for variations that do not involve a substantial change, and may consult on a non-statutory basis for any other application. Any claims for commercial confidentiality or national security are resolved before consultation.

If the public is to be consulted, the PPC Regulations state that you must advertise your application in one or more local newspapers and the *London Gazette*, providing certain information. Annex B gives more detailed instructions relating to the wording, timing and placement of advertisements in practice, plus a sample advertisement.

With regard to statutory consultation, we will send copies of your application to the various statutory consultees. These are other bodies with specialised interests and expertise who may comment on the application.

♦ *Determination*

Once the Agency has gained sufficient information and any processes of consultation have finished, we will determine your application.

How long should it take for a decision to be reached?

The PPC Regulations set statutory periods following receipt of a duly made application within which we should normally reach a decision. In most cases these will be as follows:

- for a new permit application, four months;
- for an application for a variation, four months if consultation is undertaken under the terms of the PPC Regulations and three months in other cases;
- for an application for a transfer, two months; and
- for an application for surrender, three months.

These periods do not include the time taken for the Operator to respond to any additional requests for information after the application has been submitted. In complex cases, the Agency and the Operator may agree that a longer period is appropriate. However, the Operator does not have to agree to this and may appeal to the Secretary of State against "deemed refusal" if the Agency does not complete its determination in the period specified by the Regulations.

What can you do if you are dissatisfied with the outcome of your application?

You may appeal to the Secretary of State if your application is refused or you are dissatisfied with any permit conditions we impose on you. We will send details of how you can appeal when we advise you of our decision on your application. Appeals should be brought within time limits specified by the PPC Regulations.

Explanatory Notes on Part A of the Application Form

The notes on the front page of part A provide further information about completing the form. It also asks you for an application reference number. If you have already discussed your application with us and it is for a new permit, we may have given you a reference number. If you are applying for a variation, transfer or surrender, you should write your existing permit number here. In all other cases, please leave this section blank.

Please ensure that you are completing the right version of the application form for the year in which you are applying.

A1 About your application

These questions are intended to provide an "at-a-glance" summary of key application and associated reference details.

Question A1.1

Name and address of farm. Please provide the name and address of the farm on which the unit is sited.

Question A1.2

Name and address of installation. Please write the name and address of the installation if it is different from that of the farm. Please also provide the Ordinance Survey grid reference for the one of the principle animal houses of the unit in the box provided. This will take the form of an 8 figure reference number, e.g. NT 1234 5678, from the Landranger map series.

If you are one of several Operators applying for new permits at a single installation, you should all write the same name here so that it is clear that your applications all relate to the same installation.
If you are one of several Operators at an installation, it may be difficult to establish a single site address that applies to the whole installation. In this case you should write the address that corresponds to the part of the installation for which you are applying, for example the address of the premises for your activity. The primary requirement is to provide an address that will enable the Agency to identify the correct part of the installation. A PO Box number should not therefore be used.

If you already hold an IPPC permit and are applying for a **variation, transfer** or **surrender**, please write the name that was assigned to your installation when the permit was granted.

When providing details of postal addresses in this or any other part of the Application Form, please include the postcode. Where you are asked to write the locality, this means the local district of a Post Town where the installation is situated. For example, Coalville is a locality situated near to Leicester.

Question A1.3

Existing Permits. Please provide details in the box provided of any pollution control permits (other than IPPC) that remain in force for the installation. Please identify all relevant Local Authority Pollution Control (LAPC) authorisations, Waste Management Licences or Water Discharge Consents. For each you should provide the permit number, type of permit and the date on which it was issued.

A2 Authorised contacts

Question A2.1

Authorised contact. Please provide details of a person we can contact with questions on your application. This need not be someone who can answer all such questions, but should be someone who can co-ordinate a response. It may be an agent rather than the Operator.

A3 About the operator

These questions are concerned with the identity and legal status of the "Operator". The "Operator" means the person whom it is proposed will have control over the installation in accordance with the permit.

In the case of an application for a transfer, the details that relate to the **proposed** Operator (i.e. the transferee) should be provided by answering the questions in Part D of the Application Form. The questions in Part A should be completed in relation to the **current** Operator.

Question A3.1

Legal status of operator. Please identify whether you are applying to be the Operator as an individual or a group of individuals, a partnership, or a company/body corporate. You may wish to discuss this issue with the Environment Agency before completing the Application Form if you are not sure which applies. How you answer this question will determine which question (A3.2, A3.3 or A3.5) you should go to next.

Question A3.2

Details for individual applicants. You need to provide the information requested here if you are applying as an individual or a group of individuals. If you apply as an individual and a permit is granted, you will be personally responsible for ensuring compliance with the permit conditions. If you apply as a group of individuals, each of you will be responsible.

Question A3.3

Details for applicants in partnerships. You need to provide the information requested here if you are applying as a partnership as permits can only be issued to named individuals, not a partnership name. Information is required from each individual who is a member of the partnership.

Question A3.4

Details of the partnership. If you are applying as a partnership, please give the name of the partnership and the other information requested to demonstrate that the partnership exists as a legal entity.

Question A3.5

Details of companies or corporate applicants. You need to provide the information requested here if you are applying as a company or body corporate. If you are applying as a company you will need to provide a copy of the Certificate of Incorporation and certificates of any subsequent name changes. If you are applying as any other type of body corporate please provide evidence of your status, e.g. a reference to the relevant legislation by which the body corporate is established.

The company registration number that you supply under this question (where appropriate) should relate to the registered company that will operate the installation, rather than the parent company of a large group of registered companies.

Most applicants answering this question will be companies rather than "bodies corporate". The term body corporate refers to other bodies which are not commonly described as companies. Examples are, those incorporated pursuant to some general Act of Parliament (e.g. building societies), those incorporated pursuant to a royal charter or special Act of Parliament ("public corporations") and insurance companies. Applicants will normally know if they fall into any of these categories.

Question A3.6

Details of holding companies. If you are a subsidiary of a holding company within the meaning of Section 736 of the Companies Act 1985, you should tick the "Yes" box in this question and then provide the relevant details in the spaces provided.

Section 736(1) states that: *"A company is a 'subsidiary' of another company, its 'holding company', if that other company:*

a) holds a majority of the voting rights in it, or

b) is a member of it and has the right to appoint or remove a majority of its board of directors, or

c) is a member of it and controls alone, pursuant to an agreement with other shareholders or members, a majority of the voting rights in it,

or if it is a subsidiary of a company which is itself a subsidiary of that other company".

Question A4

Non-technical summary. The PPC Regulations require that a non-technical summary is produced for every installation. Your answers will be used as a summary of your application for the public register.

It will usually be easiest to fill in this section once you have completed the rest of the form.

Question A4.1

Summary of details about your installation. This section requires you to provide contact information for the farm, with the proprietor and operator names (if different). You are also required to tick boxes to provide information on the status of the business and the type and number of animals that are housed. It also asks you to identify whether other specified activities also take place on the site.

Question A4.2

Summary of operational activities. This part of the application should only be completed when you have finished the remainder of the application. In this section you should explain briefly how your farm and other directly associated activities is operated, and the measures you take to prevent pollution. **It must include the main points about your installation and its effects on the environment**. This would normally include stock numbers, density, housing conditions, procedures for cleaning, collecting and storing waste, feeding, water and ventilation arrangements, the use of any specific treatments to minimise run-off or waste handling problems, and the arrangements for waste disposal (including carcasses). Where arrangements have been particularly designed to minimise environmental impacts please explain what has been done, and why.

This summary should aim to be no more than one side of A4, and technical language or jargon should be avoided.

Example of non-technical summary for a broiler farm:

"Broilers kept in 5 xyz type sheds each containing 50,000 birds. Birds stocked at 15 birds per m^2 on a concrete floor bedded with wood shavings. Birds introduced as day olds and harvested at approximately 42 days. Sheds are then emptied, and a contractor removes litter by tractor and trailer directly to field stores for spreading. The building is then disinfected, and fresh dry wood shavings are added for the next crop of day old chicks. The clean-out period is about 10 days. There are 6.9 production cycles per annum.

Sheds are ten years old and are well insulated, with concrete floors and an internal sump to collect any liquid. Ventilation is by wall mounted electric fans and temperature and humidity are automatically monitored, controlled and recorded by a computer system. Target levels are 22°C, and 50% - 70% relative humidity and litter is estimated to have a 65% - 70% dry matter content. Nipple type drinkers are used, and water consumption is monitored daily. Balanced diets from UKASTA accredited mills are bought in. These have the correct quantity and quality of fats, oils, etc. Additives such as digestive enzymes are also used to reduce the moisture content of litter. Shrubs have been planted around sheds and adjacent to fan outlets.

These measures are intended to reduce the production and emission of ammonia, odours and dust from the sheds, and prevent liquid washings escaping to the environment. This in turn should reduce the environmental impact of the farming activities. For example, dust escapes from the sheds through the ventilation, the shrubs will help trap dust and reduce emissions. Odour is reduced by keeping litter dry, whilst ammonia production is reduced by using optimum levels of protein in the diet.

Litter is spread on land as a fertiliser in accordance with the requirements of a manure management plan. The plan details the methods and timing of the operation to minimise the risk of pollution.

Carcasses are incinerated on site using a small incinerator with a combustion chamber designed to minimise emissions to the atmosphere"

The questions in Part B are specific to applications for new permits or for substantially changed installations. This section should be completed for applications for a Standard Farming Installation permit or for those requiring a site-specific permit (see Part D). You must complete all the relevant sections of Part B.

In order to assess your application we need to know about the installation and the systems you operate. By adhering to **Standard Farming Installation (SFI) Rules**, which you should read before you complete this form, a simplified procedure can be followed.

B1 About the installation

Question B1.1

Installation table for new permit application. Please complete the table to identify the entire scope of the installation and the activities that are carried out in it. In most cases it is expected that a single Operator will run a single installation. If, however, different parts of a single installation are run by different Operators, then all of the Operators will need to work together to develop consistent answers for the table. You may need to discuss this issue with the Environment Agency before any applications are submitted. If the Environment Agency receives conflicting applications from Operators who run different parts of the same installation, we are unlikely to be able to determine some or all of the applications.

The Operator is the person/s identified in this application as the operator of the installation. Should any of the directly associated activities have a permit in their own right then the relevant operator should be identified.

Please provide details of the installation in the first table at B.1.1. Examples of activities in the stationary technical unit include rearing broiler chickens, or egg production from laying hens involving more than 40 000 places; and for pigs, the rearing (fattening) of production pigs (over 30kg) involving more than 2000 places, or the rearing of pigs involving more than 750 sow places.

Relevant "directly associated activities" are those that will be carried out on the same site and have "a technical connection" with the activities in the "stationary technical unit" and which could have an effect on pollution. Typical examples might include the mixing and compounding of feed, or swill feeding. You should refer to the PPC Regulations or contact the Agency for advice on whether you have directly associated activities to declare.
The "Schedule 1 references" in the Table at B.1.1 refer to Schedule 1 of the PPC Regulations, of which Section 6.9 deals with intensive farming.

The Regulations can be viewed on the internet at http://www.hmso.gov.uk/si/si2000/20001973.htm or purchased from the Stationery Office. Please note that if your installation includes any activities covered by the other parts of this Schedule, you should still list them in the table. Possible examples include incineration, or land-filling. In this case you will need to provide details of these activities as part of your application. Please contact the Agency for advice on how to do this.

Question B1.2

Why is the application being made? This requires you to tick the appropriate box depending upon whether the application is for a new installation for one for which a "substantial change" is proposed.

Question B1.3

Site maps and reports. This question identifies two sets of documents that must be submitted with your application.

Firstly, you need to provide a **site report**. This must describe the condition of the site for the part of the installation in respect of which you are applying. Guidance on the preparation of site reports for intensive livestock installations is being prepared by the Agency, please contact the Agency for advice.

Secondly, You should provide suitably detailed maps (preferably 1:2,500 scale for buildings and 1:10,000 scale for surrounding area) showing the location of the site of the installation and any directly associated activities, for which you are seeking a permit.

You must make sure that the maps are legible and that you have the necessary permission to make copies of the maps. You must also place a reference number on the site map and report that you submit.

Again, if there are several Operators in an installation, they may wish to produce a common set of maps or plans, and then submit one copy each with their applications. The submissions should make clear which parts of the site and installation relate to each Operator.

B2-B4 Impact on the Environment

These questions are central to your application. You are required to set out various details about the steps that you propose to take to ensure that the environment is protected as a whole from activities taking place on your site.

Sections B2-B4 follow the 3 basic steps for demonstrating that your proposals meet the regulatory requirements:

- ***demonstrating that the techniques you are proposing are BAT and meet the other requirements of the PPC Regulations (Section 2);***
- ***comparing the resulting emissions with any BAT-based benchmarks (Section 3);***
- ***assessing the impact of those emissions on the environment (Section 4).***

In order to make satisfactory responses to them you should refer to the Standard Farming Installation Rules and Guidance and other relevant technical guidance.

♦ *Using existing information when answering these questions*

Your answers to the questions in Sections B2, B3 and B4 will comprise a package of material that you should submit along with the completed Application Form and other attachments.

You may already have some information that is relevant to these questions, for example documentation from previous regulatory regimes or information collated for assurance schemes. Where this is the case, you may attach the relevant information and cross-refer to it. You should ensure that it is clear what parts of any such attached information are being cited and how they relate to your answer to each part of these questions.

♦ *Demonstrating that you will meet the required standards*

The Agency will need to be confident that the operation of you installation will meet the requirements of the PPC Regulations and other legislation. Thus, you should aim to demonstrate, in your responses to questions in Sections B2, B3 and B4, how you propose to achieve this.

The principal requirement is that emissions (of any substances, vibrations, heat and noise) must be prevented or reduced at least to the standards achievable using BAT. *IPPC: A Practical Guide* explains the principles behind BAT. In some cases it will be necessary to reduce emissions further, for example to ensure that requirements relating to matters such as compliance with environmental quality standards and minimisation of long distance and transboundary pollution are met.

We are also required to include other conditions in a permit that we consider appropriate to give effect to provisions relating to issues other than emissions, e.g. energy efficiency, waste management and accidents. We need to ensure your proposals are satisfactory in this regard.

If we are satisfied with your proposals, and that the other requirements of the legislation are met, we will issue you a permit containing appropriate conditions that correspond to what you have proposed. If we are not satisfied we may do one of four things:

1) We may invite you to submit further information in those areas where we believe there are deficiencies in your application or the proposals you have made.
2) We may issue a permit with conditions that go beyond or are additional to what you have proposed.
3) We may issue a permit that only allows the operation of those activities in respect of which we are satisfied, excluding some other activities for which the application was made.
4) We may refuse the permit.

♦ *What the SFI Rules and Guidance contain*

The SFI Rules and Guidance note follow the structure of Sections B2, B3 and B4. They describe the information that you should provide to address these issues. This includes advice on where detailed assessments are required and, where appropriate, clear indicative requirements against which your proposals should be compared.

B2 Your proposed techniques

Questions B2.1–B2.11

These questions require you to demonstrate that the techniques you are proposing are BAT and meet the other requirements of the PPC Regulations.

Sections B2.1 to B2.11 of the SFI Rules and the Technical Guidance note deal with the corresponding application questions B2.1 to B2.12 and cover the various aspects of your farm.

Question B2.1.1 requires you do give details of your inspection and maintenance schedule and provide documentary support for this.

Question B2.1.2 requires you to state whether your staff have received training as detailed in **section 2.1.2** of the Standard Farming Installation Rules. If they have you must supply a document referencing this and, if not, you should indicate when training is to be undertaken.

Question B2.2.1 requires you to provide information on raw materials use as detailed in **Section 2.2.1** of the SFI Rules. The table requires you to provide details of the biocides, pesticides, veterinary medicines, bedding types, fuels and oils which you use. You should indicate whether these are on approved lists and state both the annual quantity that you use and how much you store on site. You may wish to provide this information in a different format than the table, but all of the required information must be supplied. Where there is a choice of a less environmentally hazardous alternative (e.g. you are using a different substance to those on the approved list), you must justify your reasons for choosing that particular material. You should complete the inventory in relation to when the installation is operating normally, rather than anticipating any emergency situations.

Question B2.2.2 requires you to describe the type of feed to be used and the proposed feeding regime, as described in **Section 2.2.2** of the SFI Rules. It also requires you to state whether digestive enzymes or other additives will be used.

Question B2.2.3 requires you to provide information on water use. Requirements are detailed in **Section 2.2.3** of the SFI Rules. In addition collecting and using clean rainwater can contribute to reducing water costs. You should give details of the current or proposed water use per annum. Information from water company bills will be sufficient for existing units. New units should give an estimated use based on livestock requirements and best practice for other water uses such as cleaning out. Further guidance on this is available from a number of sources including the MAFF document on waste minimisation and the Code of Good Agricultural Practice for Water. If a water audit has not been submitted as part of the application give details of your proposed timetable for completion, which **must be within 18 months of the date of the permit.**

Question B2.2.4 requires you to give details of waste minimisation. Requirements are given in **Section 2.2.4** of the SFI Rules. You must Identify the quantity and type of waste produced, e.g. packaging, paper, plastic, scrap metal, chemicals and disinfectants, animal carcasses, veterinary medicines and syringes etc. and explain what you do to minimise the quantities of waste produced (slurry, litter and manure are dealt with in Section B.2.3.3). If you have not undertaken a waste minimisation audit, give details of your proposed timetable for doing so, which **must be within 18 months of the date of the permit.** If you propose to dispose of waste, explain why recovery is either technically or economically not feasible. Describe measures you may take to ensure that impacts on the environment resulting from disposal are minimised. Of particular importance is the disposal of animal carcasses.

Question B2.3. The questions in this section consider the techniques that you may adopt to prevent and control pollution. This is addressed by considering different types of operation that may take place on the farm and requiring you to provide specific information about each of them.

Question B2.3.1 requires you to provide information on measures you adopt to control pollution from feed delivery, milling and preparation. Requirements for feed delivery, milling and preparation are given in **Section 2.3.1** of the SFI Rules. The main environmental considerations are emissions of dust, odour, noise & vibration, and spillage to drains or watercourses. You should provide details of how you will prevent and control pollution for these and other aspects.

Question B2.3.2 requires you to provide information on measures you adopt to control pollution from the storage of fuel oil, other oils and chemicals. Requirements for storage of agricultural fuel oil, other oils and chemicals are given in **Section 2.3.2** of the SFI Rules. Fuel and oil must be stored in such a manner that spillage does not occur. You must demonstrate that stores subject to existing legislation are of the required standard, and smaller stores are constructed and located in such a manner that pollution will not occur. Existing unbunded tanks exempt from current legislation should be upgraded to meet these requirements by 2007. Smaller quantities should be kept in a manner that ensures leakage will be contained, e.g. oil barrels should be stored on sump pallets. Pesticides should be kept in accordance with the requirements of the MAFF “Green Code” and veterinary medicines should be kept in a secure dry store capable of retaining spillage and leaks. Please provide sufficient information about your stores to allow us to make an assessment. The information required in part (i) of the box should be included in the Emergency Plan and, if so, provide us with a copy of the Plan and make reference to it here.

Question B2.3.3 requires you to provide information on measures you adopt to control pollution by minimising emissions from housing. Requirements for minimising emissions from housing are detailed in **Section 2.3.3** of the SFI Rules. Some of the information you provide in answer to this question may also be relevant to Question B2.4.1, in which case you should indicate in your answer here where other issues are addressed. You should describe in detail:

- the housing type including ventilation and heating, insulation, drinker system, slat/floor design, bedding; manure handling systems;
- explain how the housing has been selected to minimise emissions to the environment;
- the management of the house;
- how you prevent contaminated run-off from yard areas;
- if clean roof and yard water is separated from dirty areas;
- measures used to minimise noise and odour;
- **footbaths used and method of containment of disinfectants;**
- **Measures used to minimise noise and odour.**

Question B2.3.4 requires you to provide information on measures you adopt to control pollution from slurry, litter and manure *storage*. Requirements for slurry, manure and litter storage are detailed in **Section 2.3.4** of the SFI Rules. You should provide information on proposed and existing storage facilities and demonstrate that these will meet the requirements of the Rules. You may have covered some of these issues in Question B2.3.3.

Question B2.3.5 requires you to provide information on measures you adopt to control pollution from manure *management*. Requirements for slurry/litter/manure management are detailed in **Section 2.3.5** of the SFI Rules. All applicants should provide details of:

- the amount of slurry/litter/manure handled per year;
- the methods used to empty buildings/stores and transport slurry/litter/manure;
- the measures you have in place to prevent run-off when cleaning sheds;
- the slurry/litter/manure storage facilities, including how you select sites for field storage of solid litter/manure if relevant;

If a contractor is used for slurry/litter/manure removal:

- state who this is, and give details of any contractual arrangements.
- state the quantity of **suitable** land available for spreading;

When slurry/litter/manure is spread on your own land:

- state the nutrient status of soil where manure is spread (based on analysis initially conducted at least once every four years);
- provide a Manure Management Plan equivalent to the requirements stipulated in the SFI Rules.

Where manure is exported to third parties, you should provide evidence that there is sufficient land available to utilise the manure. Information should include the name and addresses of recipient/s, and the area of suitable land available for spreading. For each of these issues you should provide specific references to attached documents in the box provided. You may have covered some of these issues in Question 2.3.4.

Question B2.3.6 requires you to provide information on measures you adopt to control odour if there are any people within 400m, or substantial complaints have been received in the past. Requirements to control odour will be site-specific, depending on the location of the installation. You should use the Agency document “Draft Guidance for Odour Management at Intensive Livestock Installations” to prepare an odour management plan if one is required. The box requires you to specify any specific parts of the environment that could be affected by odours and any substantial complaints that have been caused by the farm.

Question B2.4 requires you to provide information on the disposal of dangerous substances to land and water. This refers to specific lists of substances, called List I and List II substances. You should assume that all pesticides and veterinary products contain either List I or List II substances. Disposal onto or into land or discharge to controlled waters requires authorisation, whilst **use** does not. Information about the Groundwater Regulations, and best practice can be obtained from the Agency. Disinfectants in footbaths do not need to be included provided footbaths do not overflow, and effluent from footbaths is disposed of by applying to land with slurry or manure in accordance with SFI Rules, **Section 2.3.3.** You may carry out routine disinfecting of housing, in which case you should give details of how you do so and what happens to any waste material/washings contaminated with disinfectants that arise. This information may be included in your answer to question 2.3.3, in which case you should simply refer to that document here. If in any doubt you should consult your local Agency office for further advice on this.

Questions B2.5 and 2.6 relate to techniques to control pollution during waste storage, handling, recovery and disposal. Legislation currently exempts farms from these requirements and so these sections are not yet applicable to intensive livestock farms.

Question B2.7 requires you to provide information relating to energy use and the climate change levy, if applicable. Requirements are described in **Section 2.7** of the SFI Rules, together with details of audit guides and packages. If you are subject to a Climate Change Levy Agreement you should provide details of your participation in the agreement. If you are not subject to a Climate Change Levy Agreement, you should submit records of your current annual energy use (e.g. from bills or meters) or provide a description of your proposed energy use. **You must complete an energy audit within 18 months of the permit date**

Question B2.8 requires you to demonstrate that you have a management plan to prevent accidents and to manage their consequences if they do occur. Requirements for accident prevention and management are detailed in **Section 2.8** of the SFI Rules. A standard format for an emergency plan is detailed in **Appendix 2** of the Rules. Your plan should include the procedures you would take to minimise environmental risks and hazards from accidents and their consequences.

Question B2.9 requires you to provide information on measures you adopt to control noise and vibration if there are any people within 400m or substantial complaints have been received in the past. Requirements to control noise will be site-specific, depending on the location of the installation, as referred to in **Section 2.9** of the SFI Rules. You should use the Agency document “Draft Guidance for Noise Management at Intensive Livestock Installations” to prepare a noise management plan if one is required.

Question B2.10 asks you to provide information relating to the monitoring of emissions. In most circumstances estimates of emissions to air can be based upon standard emission factors provided by the Agency, and livestock numbers. These data will be used to calculate emissions from the installation. Please provide details of any other existing or proposed monitoring that is carried out e.g. monitoring ammonia concentrations inside livestock housing. You should provide details of the sampling and testing schedule for the nutrient status of slurry/litter/manure to demonstrate the monitoring of your emissions to land (refer to requirements of SFI Rules in section 2.3.5). Please also provide details of monitoring arrangements for discharges to water.

Question B2.11 requires you to provide information on measures that would be taken to decommission the farm unit once it is no longer used for intensive animal production. Requirements are detailed in **Section 2.11** of the SFI Rules. Even if you have no intention to close the installation, it is a requirement of the PPC Regulations that you submit a decommissioning plan as part of the permit application. This

should state how you will return the site to a satisfactory condition on cessation of activities, and avoid any pollution risk. The site should be returned to a condition no worse than it was in, from an environmental perspective, when the permit was applied for. Further information is given in the Agency's guidance on the preparation of site reports in Annex C.

B3 Your proposed emissions

Question B3.1 This question asks you to compare the emissions resulting from your proposed techniques.

To assist you with emission of ammonia (and dust from poultry) to the atmosphere, the tables in the application form provide emission factors for different categories of livestock housing, manure storage and landspreading techniques. In section a) enter the number of pigs/poultry, in section b) enter the area of the manure store, and in section c) enter the tonnes of manure spread per year. Multiply by the factor provided to give the total emission per year for each source, then calculate the total emission by adding the totals for section a) b) and c).

You should also give details of:

- other emissions, for example discharges to watercourses or sewers, or stack emissions from incinerators;
- emissions to land;
- any other emissions from the installation that you are aware of.

If your application is for a new or recently built installation, an Environmental Statement may have been prepared for your planning application. If an Environmental Statement is available, it should be submitted as part of this application. Please provide a document reference number in the box provided. **If you will be undertaking an environmental assessment as part of a planning application you are advised to consider the requirements of IPPC as well.** If an Environmental Statement is not available, you may wish to seek specialist advice to assist you in determining the environmental impacts.

B4 The impact of your proposals on the environment

Questions B4.1–B4.2 These questions require you to assess the impact of your emissions on the environment.

Please give details of the environmental effects of emissions from the installation. The information you provide should be relevant for the parts of the environment that may be affected by the installation. The most likely impacts will be the effects of ammonia emissions on the environment and the impact of odour nuisance. Other less obvious impacts may include dust, vehicle movements, visual impacts, noise and discharges to watercourses, on to land, as well as damage to sensitive habitats.

As well as people and the environment in general you should consider impacts on statutory designated areas, such as Nitrate Vulnerable Zones, Sites of Special Scientific Interest, National Nature Reserves, Environmentally Sensitive Areas (ESA), National Parks, Areas of Outstanding Natural Beauty, and on local environmental assets such as trees with Tree Preservation Orders etc.

The basic stages of assessing the environmental impacts of your installation are as follows:

- identify the activities of the installation that are likely to affect the environment (both negatively and positively) (the nature and quantity of emissions to air, water and land were established in Part B.3.1);
- identify the potential effects of emissions on resources and receptors. Resources affected are likely to include air, water and soil, receptors may be crops, woodland, plants or people affected by the emissions;
- determine the pathways linking the emission with resources or receptors. Links between the source of pollution, such as animal housing, and the receptor may be direct or indirect. For example, ammonia from fan outlets may have a direct toxic effect on trees nearby. This would be a short-term direct effect. Ammonia in the atmosphere falling on sensitive sites downwind of the farm may result in changes over time due to increased nutrients. This would be a long-term indirect effect;
- predict the likely nature and magnitude of any effects. For example, the impact of any fertilising effects of ammonia on arable land may be negligible, but the same fertilising effect on a semi-natural woodland could be considerable. Spreading slurry immediately up-wind of a housing estate could result in a severe but short term impact.

Question B4.2 ***Assessment of affects on "European" sites***. You must determine if emissions from your installation are likely to affect sites with a conservation designation (made or proposed) under the Conservation (Natural Habitats etc.) Regulations 1994, known as European sites. These sites have the highest level of statutory protection and include Special Areas of Conservation (SAC) and Special Protection Areas (SPA). Some Sites of Special Scientific Interest (SSSI) are potential European sites. English Nature or the Countryside Council for Wales can provide information and advice on these designated conservation sites.

Emissions from the installation could affect conservation sites within 2 kilometres and it is possible that they could affect sites in a wider radius. You should show that you have adequately considered the likely effects, this may require atmospheric modelling, and taken steps to reduce your emissions to an acceptable level.

You should indicate in the box provided whether you will require an environmental assessment to determine effects on such sites and, if so, provide a reference number for the assessment document, which should be attached. The environmental assessments required in sections B4.1 and B4.2 may best be considered in the same document.

B5 EIA Directive assessments

Question B5.1 ***EIA Directive information.*** You are required to provide information so that the Environment Agency can take account of any relevant Environmental Impact Assessment (EIA) for your installation undertaken in fulfilment of EC Directive 85/337 on the assessment of the effects of certain public and private projects on the environment (the EIA Directive).

If the development of your installation or any subsequent change or extension of it has required an environmental statement under the EIA Directive, please supply a copy of it and details of any decisions made in respect of it through the planning process. You may need to obtain this information from the relevant planning authority if you do not already have it. You should supply the information regardless of whether the environmental statement was required in respect of a past planning decision that has already been determined or a current planning application that has yet to be determined.

B6 Statutory consultees

This section of the Application Form asks a series of questions that will assist prompt processing of your application by ensuring your application is sent to the right statutory consultees. In some cases you may need to identify specific authorities, such as the applicable Local Authority, Health Authority, Harbour Authority or Local Fisheries Committee. If you do not know the name of the appropriate authority in relation to a question, please contact the relevant Environment Agency regional office and we will endeavour to help you to identify the authority or direct you to another source of information.

Question B6.1

Local Authorities. Please identify any relevant Local Authorities in whose area your installation is situated. The relevant Local Authorities in this context are:

a) in Greater London, a London borough council, the Common Council of the City of London, the Sub-Treasurer of the Inner Temple and the Under Treasurer of the Middle Temple;

b) in England outside Greater London, a district council, the county council if there is no district council, and the Council of the Isles of Scilly;

c) in Wales, a county council or county borough council.

Question B6.2

How many copies are required?
The Agency is required to consult others on your application under the PPC Regulations. This part of the form will help you to determine how many copies of your application you need to send to the Agency. This will normally be at least 6 copies, but could be as many as 10 depending on where your installation is sited and which interests it may affect.

In determining whether additional copies are required to be submitted with your application, you should consider the following:

- Does the installation involve the release of any substance into a sewer vested in a sewerage undertaker (i.e. Water Company)? If so an additional copy will be required for the Water Company.
- Is the installation within 2 kilometres of any Sites of Special Scientific Interest (SSSIs), or do you believe it could have an effect on a European site, as defined in Regulation 10 of the Conservation (Natural Habitats) Regulations 1994? If so an additional copy will be required for English Nature or the Countryside Council for Wales.
- Could the installation involve the release of substances into a harbour managed by a Harbour Authority? If so an additional copy will be required for the Harbour Authority.
- COMAH Regulations are the “Control of Major Accident Hazard” Regulations – if you are unsure as to whether your site is covered please contact the Agency for advice.

The table indicates the number of copies required for all applications and lists additional statutory consultees which may require consultation. If you determine that they should receive copies you should add '1' to the right hand column and provide a total at the end of this column.

Explanatory Notes on Part C of the Application Form

Part C of the Application Form covers applications for a variation to the permitted activity. This section of the pig and poultry form has not yet been produced. In the interim, please contact the Agency for advice on 0845 9333 111.

Explanatory Notes on Part D of the Application Form

Part D of the Application Form covers applications for the transfer of the permit between operators. This section of the pig and poultry form has not yet been produced. In the interim, please contact the Agency for advice on 0845 9333 111.

Explanatory Notes on Part E of the Application Form

Part E of the Application Form covers applications for the surrender of permitted activities. This section of the pig and poultry form has not yet been produced. In the interim, please contact the Agency for advice on 0845 9333 111.

Explanatory Notes on Part F of the Application Form

This part of the form should be completed and signed.

F1 Fees and charges

When you send us an application, you need to enclose a fee in all cases except where the application is for a non-chargeable variation. The application will not be duly made (valid) unless the necessary application fee is received.

The notes below should be used in conjunction with the Environment Agency's *Charging Scheme for Pollution Prevention and Control*, which you should have received with your Application Form, to help you answer the questions on the form. The "scheme paragraph" references in the notes identify the relevant parts of that charging scheme where appropriate. The scheme is updated every financial year (starting in April), so please make sure that you are using the right version for the year in which you are applying.

Please ensure that you are completing the right version on the application form for the year in which you are applying.

Question F1.1

Application fee. Please tick one box (and only one) from the following as appropriate:

There are three levels of fee:

- For an application using the Standard Farming Installation Rules.
- For an application requiring a site-specific permit where the Standard Farming Installation Rules do not apply and which is considered "small" (i.e. the unit has less than or equal to 10 times the threshold number of places for any category of animals specified in the PPC Regulations).
- For an application requiring a site-specific permit where the Standard Farming Installation Rules do not apply and which is considered "large" (i.e. the unit has more 10 times the threshold number of places for any category of animals specified in the PPC Regulations.

Question F1.2

Invoice address. If you are granted a permit, you will be required to pay an annual subsistence charge. Please provide an address to which invoices for this charge should be sent.

F2 Commercial confidentiality and national security

This section allows you to submit a claim for information to be protected as commercially confidential and asks you to tell us if you have applied to the Secretary of State for a direction on national security.

Question F2.1

Commercial confidentiality. You have the right to claim that any information contained in or attached to an application is commercially confidential. If you wish to do this, you should tick the "Yes" box in response to this question. You should submit an attachment giving precise reasons to justify any such claim. If possible, please submit the information that you consider to be confidential in a way that will allow it to be removed easily if we agree with your claim. For example, you may submit it on separate pages rather than mixing it with information for which confidentiality is not claimed. You should also mark the information "claimed confidential" where appropriate on the application form or any attachments.

The Agency will consider whether any such claim is justified. We are required to let you know within 28 days of receipt of the application whether or not we agree that the information is confidential, unless we jointly agree a longer period for this decision. If we agree, the application will be placed on the register with the confidential information removed. If the Agency does not agree, you may withdraw the application or appeal to the Secretary of State. If you do not appeal or withdraw the application within 21 days of our decision on the confidentiality claim, we will place the information on the public register. If you appeal, the information will only be placed on the register, if appropriate, once the appeal has been determined.

The scope for confidentiality claims is limited. Before making one you should read the relevant provisions of the PPC Regulations and the accompanying text in *IPPC: A Practical Guide*.

Question F2.2

National security. You may also claim that your application includes information that needs to be protected for reasons of national security. Any such claim should be submitted for determination by the Secretary of State, who will direct the Agency. Again, you should look at the PPC Regulations and *IPPC: A Practical Guide* before you make a national security application.

If you believe there is any information in your application that should be kept from the public register for reasons of national security, please **do not write anything on the Application Form that reveals this**. Rather, you should provide details on a separate sheet and attach a copy of the application to the Secretary of State for a national security direction. You should contact the appropriate Environment Agency office before submitting the application to ascertain who is authorised to receive such information. You should then submit the full application in a sealed package with the name of that person clearly marked upon it. To assist prompt processing, the Application Form (only, i.e. not any attachments) should be photocopied and, together with any application fee, should be placed alongside the envelope containing the full application in another package addressed to the relevant Agency office.

F3 Data protection notice

The person signing the data protection declaration must be one of the signatories to Section F6. In signing the declaration you are confirming that you have ensured that the data protection notice in Section F3 has been brought to the attention of all the individuals named on the form.

The information you give will be used by the Agency to process your application. It will be placed on the relevant public register(s), and used to monitor compliance with licence/permit conditions, or to process renewal applications.

We may also use and/or disclose any of the information you give to us in order to:

- consult with the public, public bodies and other organisations (for example Health and Safety Executive, local authorities, emergency services) on environmental issues;
- carry out statistical analysis, research and development on environmental issues;
- provide public register information to enquirers;
- investigate possible breaches of environmental law and take any resulting action;
- prevent breaches of environmental law;
- offer/provide you with our literature/services relating to environmental matters;
- assess customer service satisfaction and improve our service.

We may pass on the information to agents/ representatives who we may ask to do other things on our behalf.

Individuals have a right to see information we hold about them. We will correct it if it is inaccurate

F4 Any other Information

This section of the Application Form provides an opportunity for you to provide any other information that you wish the Agency to take into account in considering your application.

You may attach any information that you consider relevant to your application. You are advised to avoid supplying non-relevant information as it can slow down the determination. Also, any information that you do supply may become part of the permit and, if so, you will need to be able to demonstrate compliance with it on an ongoing basis.

F5 Signatures and declaration

By completing and signing the declaration you certify that the information in your application is correct. We will return unsigned applications.

Note that it is an offence under Regulation 32 of the PPC Regulations to:

- make a statement which you know to be false or misleading in a material particular;
- recklessly make a statement which is false or misleading in a material particular;

for the purpose of obtaining a permit (for yourself or anyone else).

If you make a false statement:

- you may be liable to prosecution; *and*
- if you are convicted, you are liable to a fine or imprisonment, (or both).

One or more signatures and associated information should always be provided in the boxes under the heading **"Signature(s) of operator"**. These should be the signatures of the person (or persons) applying to obtain a permit.

Explanatory Notes on Part G of the Application Form

This part of the form is to assist those applying under the Standard Farming Installation Rules. In order to benefit from reduced costs, you must comply with all the SFI Rules either now or within any timescale specified in the Rules. The table in this section shall be used as a checklist in making sure that you have assessed your compliance with all the Rules. You will need to complete the table by referring to the Agency's document, "Standard Farming Installation Rules and Guidance". Where you fully meet the requirements in the SFI Rules you should tick column one. If you do not meet the requirements in the SFI Rules you should tick column two, which means that you will need to apply as a non-standard application.

Explanatory Notes on Part H of the Application Form

This Part of the form provides a checklist for you to check whether you have completed all of the required questions in the form and attached and referenced all supporting document. This summary will assist the Environment Agency in assessing your application and will assist you in ensuring that all information is supplied that, therefore, your application can be processed.

When you have completed your application, please return the Application Form, together with all the supporting information and payment, to the address given on the form. (If you have downloaded the form from the internet, it will not have the address written on it. You can obtain the correct address by telephoning 0845 933 3111.)

Please submit the original, signed Application Form that you have completed with its supporting attachments, plus an appropriate number of copies of each document. The number of copies required will vary depending on the type of application and the number of statutory consultees. This is shown in the table below. There is a similar table on the last page of the Application Form, which you can use to calculate the number of copies needed. The determination process will be slowed down if enough copies are not submitted, as we must send copies to all of the statutory consultees.

Please note that in the case of a variation application, the responsibility for deciding if any proposed change is substantial rests with the Agency. Therefore, if you apply for a variation and indicate that you think it may be a substantial change, we might decide that it is not substantial and could then return some copies of the application to you.

Conversely, if you think that a proposed variation is not a substantial change, but we take the opposite view, we will ask you for the additional copies required. The same is true if we decide to undertake statutory consultation on a non-substantial change.

With regard to providing copies for the Nature Authorities (English Nature, Countryside Council for Wales and Scottish Natural Heritage), please note that we only need a maximum of one copy of the application for each body. Thus, for example, if you indicate in response to question B6.4 that there is an SSSI in England within 2 kilometres, and then identify another site in England that may be affected in response to question B6.6, you still only need supply one copy for English Nature. If your answers to questions B6.4 – B6.6 or C6.4 – C6.6 identify sites in more than one country (England, Scotland and Wales), please provide one copy for each relevant Nature Authority.

Please contact us if you have any questions about the number of copies you should submit. We are under some circumstances able to accept electronic submission of applications, although this would be rather exceptional at the moment as we need to make sure that all the documents can be read by all the consultees. Please let us know if you would like to discuss this.

Reason Required	**Application for Permit**	**Application for Variation with Substantial Change ("Yes" to question C1.4)**	**Application for:** **(a) Variation with no Substantial Change ("No" to question C1.4);** **(b) Transfer;** **(c) Surrender**
Original for Agency determination	✓	✓	✓
Copy for Agency public register	✓	✓	✓
Copy for Food Standards Agency	✓	✓	✗
Copy for Local Authority public register	✓(may need more than one copy if on a boundary – question B6.1)	✓(may need more than one copy if on a boundary – question C6.1)	✓(may need more than one copy if on a boundary)
Copy for Local Authority as statutory consultee	✓ (may need more than one copy if on a boundary – question B6.1)	✓(may need more than one copy if on a boundary – question C6.1)	✗
Copy for Health Authority	✓(may need more than one copy if on a boundary – question B6.2)	✓(may need more than one copy if on a boundary – question C6.2)	✗
Copy for Sewerage Undertaker	Only if answer to question B6.3 is "Yes"	Only if answer to question C6.3 is "Yes"	✗
Copy for English Nature	Only if answer to question B6.4, B6.5 or B6.6 is "Yes" and site is in England	Only if answer to question C6.4, C6.5 or C6.6 is "Yes" and site is in England	✗
Copy for Countryside Council for Wales	Only if answer to question B6.4, B6.5 or B6.6 is "Yes" and site is in Wales	Only if answer to question C6.4, C6.5 or C6.6 is "Yes" and site is in Wales	✗
Copy for Scottish Natural Heritage	Only if answer to question B6.4, B6.5 or B6.6 is "Yes" and site is in Scotland	Only if answer to question C6.4, C6.5 or C6.6 is "Yes" and site is in Scotland	✗
Copy for Harbour Authority	Only if answer to question B6.7 is "Yes"	Only if answer to question C6.7 is "Yes"	✗
Copy for Local Fisheries Committee	Only if answer to question B6.8 is "Yes"	Only if answer to question C6.8 is "Yes"	✗
Copy for Health and Safety Executive	Only if either box ticked in question B6.9	Only if either box ticked in question C6.9	✗
Copy for Planning Authority	Only if installation includes "specified waste management activities" (answer to question B7.1 is "Yes")	Only if installation includes "specified waste management activities"	✗
Copy for Secretary of State for Wales	Only if installation is in Wales	Only if installation is in Wales	✗

Definitions and Glossary

BAT	Best Available Techniques
BREF	BAT Reference – sectoral notes being produced by the Commission
CCL	Climate Change Levy
CCLA	Climate Change Levy Agreement
COMAH	Control of Major Accident Hazards
DETR	Department of the Environment, Transport and the Regions
EIA	Environmental Impact Assessment
ELV	Emission Limit Value
EQS	Environmental Quality Standard
FAPP	Fit and Proper Person
IPC	Integrated Pollution Control
IPPC	Integrated Pollution Prevention and Control
LAAPC	Local Authority Air Pollution Control
LAPC	Local Authority Pollution Control
LAPPC	Local Authority Pollution Prevention and Control
PPC	Pollution Prevention and Control (the name of the regulations which cover, *inter alia*, IPPC)
SI	Statutory Instrument
SSSI	Site of Special Scientific Interest
WML	Waste Management Licence

With reference to this document only the following definitions are intended:

Biodegradation – the breakdown/decomposition of a substance by bacterial or other micro-organisms.

Bioaccumulation – increasing levels of substances which do not breakdown in the environment but accumulate within the tissues of plants or animals. A very well known example is DDT (now banned).

Conceptual model – a picture or set of words which describe what the site is currently like and how any contamination may be behaving within the site, together with the likelihood of that contamination affecting the *surrounding environment*. A conceptual model identifies *pollutant linkages* for the site.

Contaminant – a substance that is in, on or under the land which has the potential to cause harm or to cause pollution of controlled waters.

Desk study **– Interpretation of historical, archival and current information to establish where previous activities of the land were located, and where areas or zones containing distinct and different types of soil and water contamination can be expected to occur, and to understand the environmental setting of the site in terms of pathways and receptors**

Environmental setting – the presence or absence of sensitive environmental *receptors* such as *groundwater*, surface water features, sites of ecological interest, amenity uses (e.g. parkland), other agricultural/horticultural uses and areas of population.

Geological, hydrogeological setting – the nature of the soils and rocks underlying the site, together with the flows, quantities, quality, use and depth of any associated *groundwater*. The main consideration relates to the vulnerability of any *groundwater* to pollutants, which will depend largely upon the geological conditions. Hence, for example, sites located directly over chalk are likely to be very sensitive in respect to *groundwater* vulnerability due to the generally permeable nature of the chalk and the importance of chalk *groundwater* as an abstracted resource. Conversely, sites located on substantial clay deposits are likely to be generally less sensitive in respect to *groundwater* vulnerability.

Groundwater – all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"Initial" condition - the presence or absence of contamination on, in or under the site before the production unit starts operating under the IPPC Regime. If the site is an existing unit then the "initial" condition must be assessed as far as reasonably possible without being destructive to buildings and fixed machinery. Further guidance on this is given in the A1 Guide to Applicants.

Listed substances – this means any substances defined in List I or List II of the *Groundwater* Directive. A full list is given in the directive, for farming applicants the substances most likely to be relevant are hydrocarbons (fuel, oil etc.) which are List I, and the active ingredients of pesticides and disinfectants which are largely on List I. The Directive requires that there is **no discharge** of List I substances to *groundwater* and no *pollution* of *groundwater* by List II substances.

Mean values – the arithmetical "average" of a data set. Anyone undertaking this level of analysis should already be familiar with the definition and use of mean values.

Migration/escape – substances may gradually leave the site, frequently travelling through the *groundwater* or soil pore water, in which case they are said to have migrated from it. Or they may escape catastrophically, for example with the failure of a slurry store.

Phases 1a, 1b and 2 – the successive stages of collecting information to enable the production of a site report, each stage requires further investigation and sampling. For a green-field agricultural site a Phase 1a report, should be sufficient. For Phase 1b or 2 reports it is highly likely that at least some professional assistance will be required. It should be noted that other parts of the application, such as the manure management plan, will require soil sampling and there are opportunities to avoid duplication of effort and expenditure by careful planning before any sampling work is undertaken.

Pollutant Linkage – the relationship between a *contaminant*, a pathway and a receptor identified as part of the *conceptual model*

Pollution - **The introduction by man into the environment of substances or energy liable to cause hazards to human health, harm to living resources and ecological systems, damage to structures or amenity, or interference with the legitimate use of the environment (Holdgate 1979).**

Remediation – Actions required to remove, rectify or make good any damage to the environment which may have resulted from the operation of the intensive livestock production unit.

Site investigation – intrusive/analytical work carried out to provide information on the condition of the land.

Site reconnaissance – A walk over survey (visual inspection) of the site to identify it's physical state and current activities such as buildings, plant and machinery, facilities such as electricity lines, pylons and substations, or irrigation installations etc, together with any evidence of contamination and potential hazards on the site.

Surrounding environment – the land, air, water, habitats, flora and fauna, and population in the vicinity of the site. This includes unseen elements such as *groundwater*.

Receptors/Vulnerable Receptors – parts of the *surrounding environment* that could be affected by contamination on the site, or moving off the site. To be considered to be vulnerable a receptor must be connected to any contamination present by a pathway. For example a nearby watercourse might be a vulnerable receptor to run off contaminated by manure/litter/slurry storage, resulting in the death of fish and other organisms.

ANNEX A - Documents Relevant to IPPC for intensive animal units

Contents of documents relevant to IPPC

Titles in Sections 1 to 6 are being made available free of charge for viewing or download on the Environment Agency Website http://www.environment-agency.gov.uk. The site also contains an updated version of this list and other up to date information. The same information can also be accessed via the SEPA web site http://www.sepa.org.uk, or the NIEHS web site www.nics.gov.uk/ehs

Most titles will also be available in hard copy from The Stationery Office (TSO). Some existing titles are not yet available on the Website but can be obtained from TSO.

The Stationery Office on line ordering service can be accessed from the Environment Agency Website, or directly via http://www.tsonline.co.uk. Alternatively publications can be ordered from:

- **TSO Publications Centre** (Mail, fax and telephone orders only) PO Box 276, London SW8 5DT, Telephone orders: 0870 600 5522 (all major credit cards accepted) Fax orders: 0870 600 5533
- London, 123 Kingsway, WC2B 6PQ 020 7873 0011 fax 020 7831 1326
- Birmingham, 68-69 Bull Street, B4 6AD 0121 236 9696 fax 0121 236 9699
- Bristol, 33 Wine Street, BS1 2BQ 0117 926 4306 fax 0117 929 4515
- Manchester, 9-21 Princess Street, M60 8AS 0161 834 7201 fax 0161 833 0634
- Cardiff, 18-19 High Street, CF1 2BZ 029 2039 5548 fax 029 2038 4347
- Belfast, 16 Arthur Street, BT1 4GD 028 3223 8451 fax 028 3223 5401
- Edinburgh, 71 Lothian Road, EH3 9AZ 0131 228 4181 fax 0131 229 2734
- Also available from TSOs accredited agents - see Yellow Pages - and from some booksellers.

Section 1 – IPPC Sector Guidance

IPPC S0.01 General Sector Guidance – for use with existing IPC or waste guidance where specific IPPC Sector Guidance has yet to be produced – Version 2 June 2001 available on EA Website or from the Stationery Office ISBN 0 11 310174 0.

IPPC S6.02 Standard Farming Installation Rules and Guidance - Version 3 Jun 2001 available on EA Website or offices only.

IPPC Sector Guidance for pigs and poultry: consultation draft.

Section 2 – Cross Sector Guidance relevant to IPPC

A4 Effluent treatment techniques January 1997, £28.00 ISBN 0-11-310127-9

D1 Guidelines on discharge stack heights for polluting emissions July 1993, £8.00 ISBN 0-11-752794-7 Addendum to D1 can be found in Odour measurement and control - an update by M Woodfield and D Hall August 94 ISBN 0-85-6248258 published by AEA - contact telephone number is 01235 463162

E1 Best practicable environmental option assessments for IPC April 1997, £35.00 ISBN 0-11-310126-0

M1 Sampling facility requirements for the monitoring of particulates in gaseous releases to atmosphere March 1993, £5.00 ISBN 0-11-752777-7

M2 Monitoring emissions of pollutants at source January 1994, £10.00 ISBN 0-11-752922-2

M3 Standards for IPC Monitoring Part 1: Standards, organisations and the measurement infrastructure August 1995, £11.00 ISBN 0-11-753133-2

M4 Standards for IPC Monitoring Part 2: Standards in support of IPC Monitoring Revised 1998

M8 Environmental Monitoring Strategy -Ambient air April 2000 £50 ISBN 0-11-310175-9

M9 Monitoring methods for ambient air May 2000. £50.00 – 0-11-310176-7

M10 The Measurement of Particulate Emissions 1998 £20 ISBN 0 11 310156 2

Items planned or in preparation	Consultation drafts expected
Methodology for IPPC BAT Determinations (will replace E1)	Jul-01
Energy efficiency	01-June-01
Noise	01-May-01
Odour	01-Aug-01

Section 4 – Relevant DETR publications

IPPC: a practical guide http://www.environment.detr.gov.uk/ppc/ippcguide/index.htm
DETR Publications Sales Centre, Unit 21, Goldthorpe Industrial Estate, Goldthorpe, Rotherham, S63 9BL Tel: 0870 122 6236 Fax: 0870 122 6237

Local Air Pollution Control Guidance (Part B guidance) http://www.environment-agency.gov.uk/business/lapc/
DETR, Air & Environmental Quality Division, Ashdown House, Room 4/H10, 123 Victoria Street, London, SW1E 6DE Tel: 020 7944 6333

Section 5 – PPC Regulations

The Pollution Prevention and Control (England and Wales) Regulations 2000, SI 2000 No 1973, available in hard copy from TSO for £8.80 or free in electronic copy via http://www.tsonline.co.uk.

Enquiries on this list should be addressed to: Environment Agency, Block1, Government Buildings, Burghill Road, Westbury-on-Trym, Bristol BS10 6BF, 0117 914 2871 fax 0117 914 2770

If you are required to advertise an application for public consultation, you must do so by placing advertisements in a local newspaper and the London Gazette. The time periods for placing advertisements are:

- for an application for a permit:
  1) within a period of 28 days beginning 14 days after the day on which the application is made where there are no matters of commercial confidentiality or national security to be "disposed of" (this term is defined in the PPC Regulations); or
  2) within a period of 28 days beginning 14 days after the day on which any matters of commercial confidentiality or national security are "disposed of";

- For an application for a variation:
  1) within 28 days beginning on the day that the Agency notifies you of the requirement to advertise, where there are not matters of commercial confidentiality or national security; or
  2) within a period of 28 days beginning 14 days after the day on which any matters of commercial confidentiality or national security are "disposed of".

The advertisement should give a clear picture of the main details of the application in a way that is understandable to the public. The precise requirements for advertising are specified by the PPC Regulations. Broadly, each advertisement must:

- state the name of the applicant;
- state the address of the installation;
- describe briefly the activities in Part 1 of Schedule 1 to the PPC Regulations to be carried out in the installation and, in the case of an application for a variation, describe the change in the operation of the installation that would be authorised;
- state that the application describes any foreseeable significant environmental effects;
- state where any register which contains particulars of the application may be inspected and that it may be inspected free of charge;
- explain that any person may make representations in writing to the Regulator within the period of 28 days beginning with the date of the advertisement and give the Regulator's address (you may need to contact the Environment Agency to obtain this information); and
- explain that any such representations made by any person will be entered in a public register unless that person requests in writing that they should not be so entered, and that where such a request is made there will be included in the register a statement indicating only that representations have been made which have been the subject of such a request.

The local newspaper should be registered with the Post Office and available on demand at local newsagents. The address and telephone number of the London Gazette are:

PO Box No 7923
London SE1 5ZH
telephone number 0207 394 4580.

You should word your advertisement carefully and check copies of the editions the advertisements appear in. If there is any mistake, you may have to re-advertise - this can be time consuming and expensive.

To prove that you have publicised your application, we will need to see the complete page of the local newspaper where the advertisement appeared. *We need to see originals, not copies*. We need the complete page so as to confirm the date, and may sometimes ask to see the complete newspaper.

The box overleaf provides a sample advertisement for a permit application.

Sample Advertisement

Public Notice

PUBLIC NOTIFICATION OF AN APPLICATION MADE UNDER REGULATION 10
OF
THE POLLUTION PREVENTION AND CONTROL (ENGLAND AND WALES) REGULATIONS 2000

INTEGRATED POLLUTION PREVENTION AND CONTROL

Notice is hereby given that "name of applicant" has applied to the Environment Agency for an Integrated Pollution Prevention and Control (IPPC) permit to operate an installation involving the "brief description of activities in Part 1 of Schedule 1 of the Regulations to be carried out". The installation is located at "site address" in the Borough/District of "Name of Borough or District" in the County of "Name of County".

The application contains a description of any foreseeable significant effects of emissions from the installation on the environment.

Information relating to the above IPPC application for a permit to operate the "name of installation" is held in registers at the following locations:

The Environment Agency
"Agency address as given"

"Borough or District Council and Address"

Members of the public can inspect these registers free of charge at the above stated addresses during normal office hours. In addition, members of the public who wish to obtain a copy of the relevant information contained in the registers can do so upon the payment of a reasonable charge to cover the costs of copying.

Any objections or representations to the above IPPC application should be made in writing to the Environment Agency at the address below, within 28 days from the date of this public notice.

The Environment Agency
"Agency address as given"

Any such objections or representations will be entered into a public register unless the person making them requests in writing that they should not be so placed. If there is such a request, the register will only include a statement that there has been a request.

Section 1 – Introduction

Under the Pollution, Prevention and Control (England and Wales) Regulations 2000 (PPC Regulations) some poultry and pig producers will need to obtain an Integrated Pollution Prevention and Control (IPPC) permit to operate their units. The PPC Regulations require that an applicant submit a site report as part of the permit application.

The aim of the site report is to describe the "initial" condition of the land on which the intensive livestock unit, and it's directly associated activities, is, or will be, situated at the time the permit is applied for. This means that the report should identify the nature and extent of any environmental pollution present prior to the application for the IPPC permit. Once completed the "initial" site report should contain sufficient information to give both the applicant and the Environment Agency a reasonable understanding of the condition of the site and how any pollution may be interacting with the surrounding environment. This is often referred to as a conceptual model of the site.

The condition of the site of the intensive livestock unit should not deteriorate over time as a result of the permitted operation. To determine possible changes in the condition of the land, a further site report must be prepared when closure is proposed ("final" site report). The "initial" site report will then be compared with the "final" report and, where pollution of the site has occurred which is not authorised under the permit, it is the responsibility of the operator to return the land to its previous condition. Comparison of the two reports will enable the livestock producer and the Environment Agency:

(i) to decide if there has been any pollution of the land as a result of the operation;

(ii) to assess the need for remediation; and

(iii) to confirm that the site has been returned to a satisfactory state.

In addition to this guidance, which relates specifically to intensive livestock production, generic guidance on the production of site reports has also been prepared by the Environment Agency and is available in the all sector Part A (1) Installations Guide to Applicants.

Section 2 – Key points

Key points for the production of a site report as part of an application for an IPPC permit for a pig or poultry installation.

- When applying for a permit to operate an IPPC installation, applicants are required to describe the condition of the site prior to operation under the authorisation. The results of the work carried out to describe the condition of the site need to be provided in the form of a site report as part of the permit application.
- The site report should cover all of the land on which any of the activities of the installation may take place. This should include any land which is integral to the operation of the installation, for example, areas needed for the movement of materials by vehicles or other means, and the area around associated pipework.
- PPC does not consider whether the condition of the site is acceptable, it seeks to establish a reference against which any deterioration in condition can be assessed. Therefore:
  - a risk assessment of the impact of current levels of contamination **is not required** as part of the site report in a permit application;
  - an explicit factual statement of the current condition of the site is required;
  - quantification of levels of contamination is required for those substances that may be added to by the operation of the installation at the site.
- The condition statement contained within the site report (i.e. the proposed baseline for the site) must be representative of the actual conditions at the site. The site may be split into zones by the operator for the purposes of the assessment, in which case a baseline for each zone will be required, with appropriate levels of detail.
- The condition of the site includes the surface soils and waters, as well as the sub-surface strata and associated groundwaters where they are likely to be impacted by any substances released at the site of the installation.
- Presentation of the information collected during the preparation of the site report is important. Good information presented in a poor format can detract from the usefulness of the data. Example structures for site reports are therefore provided as a guide to good information and data presentation.
- The permit application can be rejected (i.e. not accepted as duly made) if the site report does not meet a basic standard of adequacy. There must be at least a Phase 1a assessment for this purpose.
- Once an application has been accepted as duly made, the Agency may still request further information in respect of the site report, if necessary to establish a reasonable model for the site bearing in mind the possibilities for further contamination. This may include Phase 1b or 2 works. The application will not be determined until all the required information has been supplied. If the information is not supplied the application can be refused or deemed withdrawn.

Section 3 – Aims of the guidance

The aim of this guidance is to make the process of applying for an IPPC permit by an intensive livestock producer as straightforward and as economical as possible. In addition it should enable more rapid processing of the application by the Environment Agency. The guidance provides a framework for data collection for the production of a basic "initial" site report and includes information for applicants on the main data collection activities required to produce such a report.

The "initial" site report can be produced in three phases (Phases 1a, 1b and 2). Completion of each phase will require more information and will need more resources to obtain that information. It is expected that many intensive livestock producers will only be concerned with Phase 1a (see section 8.1) where no significant contamination is present; some with Phase 1b (section 8.2) where marginal levels of contamination may be present (for example, where there is a risk that in the past the site may have become contaminated by copper or zinc due to slurry application, or fuel or oil from either previous agricultural use or other activities); and a few with Phase 2 (section 8.3) generally relating to sites where previous uses of

the land may have resulted in more significant contamination, for example storage of fuel oil perhaps for aviation, where the suspected contamination may be similar to that which might result from the installation.
The guidance provides details of the basic information requirements for each phase but it does not provide detailed explanation of how to interpret this information.

A glossary of technical terms used in the guidance (words contained in the glossary are indicated by Italics) is included under Definitions and Glossary.

Much of the additional guidance which is available on all of the activities involved in the production of a site report is aimed principally at specialists in contaminated land assessment and remediation. These references have been included within this document to provide additional background if required.

This guidance is of an interim nature and will be subject to review and amendment, as appropriate. It has been issued to provide an indication to applicants of the Environment Agency's broad requirements for site reports in permit applications, which, in detail, may be variable for each site. It is not intended to be prescriptive but to indicate what is required. Similarly, is not intended to be a substitute for the use of, and advice from, suitably qualified and competent professionals in carrying out the tasks described.

Section 4 – Site reports in permit applications

The PPC Regulations (Schedule 4) provide that an IPPC permit application must include a site report. The site report must describe the condition of the site of the intensive livestock unit and must in particular identify any polluting substance in, on or under the land that may constitute a *pollution* risk. The report should include all of the land on which any of the activities directly associated with the livestock unit may take place, but should not include fields on which manure/slurry is spread. The nutrient status of soils in these fields will be identified in the manure management plan. The only exception to this is where fields have a fixed (semi-permanent) irrigation system for dirty water and/or slurry from the unit, in this case they should be included in the site report. If the intensive livestock production unit covers only a proportion of the land occupied by a diverse agricultural business, then areas not related in any way to the intensive livestock production process can be excluded from the site report.

If the operator of the livestock unit subsequently wishes to extend the land area used for the unit once the IPPC permit has been issued, they will need to apply for a variation in the permit, and must provide a further site report for the additional area. Hence it is advisable to include all of the area of land likely to be required for the unit in the foreseeable future within the site report in order to avoid the need to repeat the process later.

It must be remembered that the reference point established in the "initial" site report will have to be revised if the condition of the site is later improved following, for example, *remediation* of any contamination which may be required by other legislation or be carried out voluntarily.

Section 5 – The site report and other legislation

IPPC is intended to prevent *pollution* of the environment (land, water and air) occurring during the operation of an intensive livestock production unit. It does not regulate past *pollution* such as that which may have occurred from the previous uses of sites on which intensive livestock units have since been established.

Any contamination resulting from any activities carried out before the permit was issued, may be dealt with under planning permissions, building control, anti-pollution works notices under Section 161 of the Water Resources Act 1991, or Part IIA of the EPA 1990.

The Groundwater Directive (80/68/EEC), as implemented by the Groundwater Regulations 1998, is also enforced via the IPPC permit. So, where **there is or is proposed to be a deliberate discharge or disposal to land or to ground** of *listed substances*, a "prior investigation" is required and the Environment Agency must be satisfied that there is "requisite surveillance of *groundwater*".

The investigation requirements of the Groundwater Directive are very similar to those required for a site report, so providing the supporting investigations for the site report have taken into consideration the requirements for the Groundwater Directive, only one investigation should be necessary. The applicant should bear this in mind at each stage of investigation and consult the Environment Agency in cases of doubt.

Section 6 – Framework for site reports

The framework which has been developed for the preparation of site reports principally relates to the provision of factual information on the sources of contamination which are present. Although the site report should also provide information on the *environmental setting* of the site and how emissions from the installation may interact with the environment, it is not intended to include an assessment of the current or future risks to the environment. Rather, the site report should identify the levels of contamination already present at the site and provide information which will help to identify conditions that may be required in the permit to protect the environment from emissions which may occur in future.

It is not possible to specify the requirements for the amount of investigation that each site will require, as all sites will be different. The methodology for producing a site report, outlined below, is intended to enable the required amount of information to be collected but also to be sufficiently flexible to allow the livestock producer to exit from the process when sufficient information has been collected. Thus, it will not always be necessary to complete all phases within the process. At the end of each phase there is a suggested decision sheet to complete which should allow the applicant to evaluate whether or not sufficient information has been collected to allow production of an adequate report. If this is the case, the site report can be produced and the process can stop. If there is not sufficient information, the applicant will need to move on to the next phase. Examples of completed decision sheets are provided in Section 10.

The framework for information collection is split into three phases - 1a, 1b and 2 - each building on the work of the earlier phase (see Figure C1). If completion of Phase 1a indicates that further work is required, the applicant will need to go to Phase 1b and then may need to go to Phase 2. Alternatively, the applicant may wish to consider combining Phase 1b and Phase 2 into a single phase by carrying out only one *site investigation*.

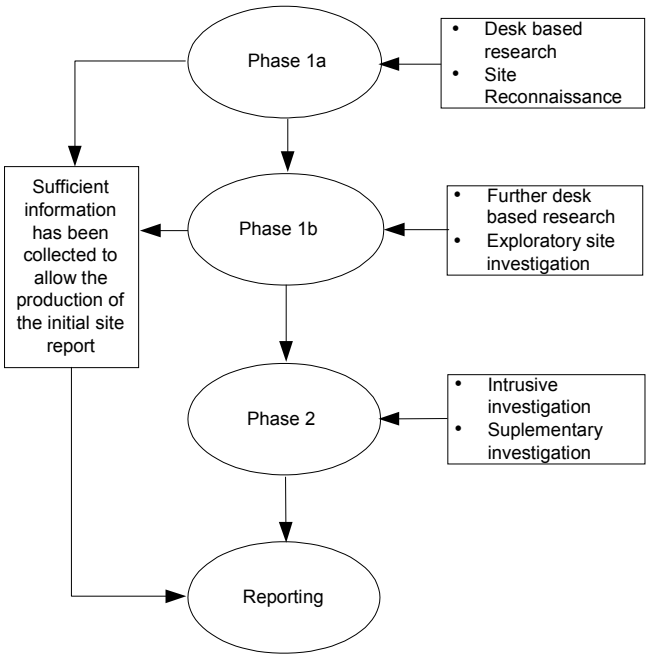

Figure C1 - Flow chart of main phases and data collection activities for production of an "initial" site report

Section 7 – "Initial" conditions at the site

The series of questions raised in the following section is intended to help you to understand the function and content of the "initial" site report.

(i) What will the "initial" condition site report be used for?

The site report in IPPC will be used to provide:

- a point of reference for later decisions as to whether or not deterioration of the site has taken place from the operations covered by the permit. When the Operator wishes to surrender the permit, the surrender application will need to include another site report identifying any changes in the site (the "final" site report);
- useful information on the physical attributes of the site and its vulnerability to *pollution*, for example the presence of *groundwater* close to the surface. This will provide information on the environmental sensitivity of the site which can be used by the Agency to set appropriate permit conditions to protect the environment;
- ***evidence of any prior investigations, for the purposes of complying with the Groundwater Directive.***

(ii) What further issues should be considered when collecting information and data for the "initial" condition site report?

- The use of historical and current information to target areas of potential contamination e.g. farm diaries to pinpoint manure/litter/slurry spreading, farm maps to show previous farming enterprises, maps or aerial photographs to show former airfield layout to identify fuel storage tanks. Information from previous owners or occupiers may also be helpful.
- The way the unit will operate and what this might mean for the nature and extent of contamination in the future. e.g. fuel stores, slurry stores, manure storage, location of wheel and foot-baths, transfer of slurry and manure from the livestock unit to fields. Careful consideration of all the areas where data might be needed is important in order to demonstrate any contamination that already exists.
- Ways in which it would be appropriate to split the site into zones/areas (e.g. where the livestock buildings, feed, fuel and slurry/litter/manure stores will be).
- Recording the locations of any samples collected sufficiently accurately to enable the same location to be re-sampled for the "final" site report, if appropriate.
- Proper collection of samples of soil or water to ensure that cross contamination does not occur and that they are representative samples. This can be helped by accurate and clear labelling, suitable storage and transportation (to ensure that the samples do not deteriorate before analysis) and recording. Professional advice, probably from the laboratory that will analyse the samples, should be sought before taking samples.
- Recording the analytical techniques used on the samples to ensure that any limitations, and the accuracy and precision of the measurements, are understood and documented.
- An understanding of how the information provided in the "initial" site report can be compared with the information that will be provided in the "final" site report

(iii) How much and what type of information is required?

There is a reasonable minimum level of information that is needed to establish the *"initial" condition* in a way that is clear and acceptable. Applicants should therefore decide how much and what type of information is to be collected bearing in mind:

- that any contamination found during the operation or at surrender is likely to be attributed to the operation of the intensive livestock production unit unless identified in the "initial" site report, or positively identified as resulting from another source;
- the type and extent of contamination likely to be present from historical activities and how it may behave at the site (e.g. oil spills, herbicide/pesticide spills, any other chemicals used on the site, build up of substances from slurry/manure/litter around storage areas or from spreading, build up of heavy metals from sewage sludge, disposal of farm waste and/or carcasses, etc.);
- the types of substances which are likely to be used or produced by any current or future operation on the site (for example where and how chemicals, oil and diesel are stored and used, storage and disposal of waste materials, substances in feed which may accumulate on site);

the characteristics of the site which may affect the behaviour and variations in concentrations of contaminants in soils and *groundwater* (for example where *groundwater* is present at a very shallow depth within permeable soils there may be a greater probability of *groundwater pollution* occurring);

- whether any contamination is likely to have accumulated in the ground and/or how much may have moved into the *groundwater*;
- the potential for *migration/escape* of contamination onto (or off) the site of the intensive livestock production unit;
- the possible consequences if insufficient information is collected, for example the extra costs and liabilities that may be incurred during or at the end of operations if any existing contamination is not identified prior to commencing operations.

Applicants may choose to collect different levels or types of information in different areas or zones of a site where justified by site conditions. In this case, it is important to record the justification for the approach, any findings, and subsequent decisions, on a zone-by-zone basis. An example of zoning is shown with the sample decision sheets in section 10.

(iv) How should the "initial" conditions be described and presented?

- Consider what is the best way to present the results of any investigation for the site, be it a *desk study* or a *site investigation*. For some site investigations there may be a lot of numeric data to present. Statistical methods can be used to describe different parts of the data in a way that will make it easier to compare the data collected for the "initial" and "final" site reports. It is likely that specialist advice will be needed to collect, analyse and present data collected for Phase 1b and 2 investigations.
- Consider presenting both information and numerical data by zones. Each zone may have a different "initial condition".
- Where soil samples are analysed for *contaminants*, consider if enough samples have been analysed to provide a representative and meaningful characterisation of the site conditions.

Section 8 – Additional considerations

An applicant may also wish to consider the following additional issues in deciding the type and amount of information to collect during each phase of assessment.

♦ *All applicants*

- The more extensive and complete the original site characterisation, the less need there is likely to be for further site investigations throughout the operating life of the installation. For example where additional or different substances are to be used at the installation and it is suspected that they may have been used at the site previously there may be a need to establish that there is no pre-existing contamination with these substances. However, even a fully comprehensive site report would not remove or replace the need for monitoring the impact of the installation, for example, via requisite surveillance (e.g. for Groundwater Directive compliance).
- Any contamination apparent on closure, which was not noted in the "initial" site report, will be attributed to the operation of the installation under IPPC, unless the Environment Agency is convinced that the livestock producer cannot reasonably be held responsible for it. Evidence that the installation is not responsible might include measures such as regular checking of tanks and keeping inventories of fuel use to demonstrate that there have been no losses.
- The full range of desk-based and intrusive and non-intrusive *site investigation* techniques should be considered. Combinations of such techniques may be particularly valuable at existing production units where there may be difficulties with access within operational areas, due to, for example, the location of underground services. The Environment Agency would not normally expect the *site investigation* activities to:
  - interrupt the operation of the unit;
  - be located in areas of known or suspected services or underground structures such that damage may be caused;
  - breach the integrity of adequate containment features such as suitably constructed bunds.
- Information collected during the *desk study* and *site investigation* (e.g. on the *environmental setting* of the site) can be used as part of the assessment of the acceptability and effects of proposed discharges from the installation (for example, whether the proposed discharge complies with the requirements of the Groundwater Directive).
- The Environment Agency will supply the site report (along with the rest of the permit application) to the relevant Local Authority as a statutory consultee under the IPPC regime. The Local Authority may use this information when carrying out its statutory duties under other legislation (predominantly Part IIA of the Environmental Protection Act (EPA) 1990 and planning legislation).
- A site assessment which has already been undertaken for other purposes may provide some or all of the information required for the "initial" IPPC site report. Careful consideration should be given to when and how the information was collected to ensure that it meets current good practice and standards, and is relevant to the objectives of the "initial" site report.

♦ *New installations*

- If the assessment for an "initial" site report is planned and undertaken appropriately, it may satisfy some of the requirements for Planning and Environmental Impact Assessment purposes should these be required. The applicant is encouraged to consider making enquiries about the requirements of these regimes and assess the potential for combining some of these investigations to make time and cost savings. In particular, where a scoping opinion under the Environmental Impact Assessment Regulations 1999 is requested from the Local Planning Authority, this would normally be referred to the Environment Agency as a statutory consultee. The applicant should discuss the extent of the assessment required for the two statutory regimes with the Environment Agency to ensure consistency and avoid duplication of effort.

♦ *Existing installations*

- Any contamination identified during the site characterisation works may require *remediation* under other legislation. The applicant is urged to contact the relevant Local Authority or the Environment Agency if there is reason for concern with respect to contamination already present at the site.
- Although it is appreciated that there are added difficulties for investigation of operational sites e.g. access, locations of services etc. (see additional considerations for all applications above), it should still be possible to produce a relatively comprehensive "initial" site report setting out the status of the site prior to operation under the IPPC regime. It will be all the more important for applicants at such sites to undertake a comprehensive investigation due to the similarity between substances to be used within the IPPC regulated activities and those used within the former operations. It is therefore in the applicant's interest to ensure that the site is investigated thoroughly. This should ensure that any contamination that has already taken place at the site, and which may be similar in nature to any substances likely to be used or produced by any current or future operation of the installation, is identified.

Section 9 – Production of the "initial" site report

♦ *9.1 - Phase 1a assessment*

♦ *9.1.1 - Objectives*

The objectives of Phase 1a for the production of an "initial" site report are:

- To review the previous historical and current uses of the site in order to identify the potential for areas of contamination to exist.
- To review information on the *environmental setting* of the site to gain an understanding of the nature, extent and behaviour of any contamination which may be present.
- To obtain sufficient information to allow the development of a *conceptual model* or representation of the site. This model can be expressed as a picture or in words but should effectively describe the inter-relationships between the environmental media (water, land, air) and other *receptors*, for example plants and animals, and any contamination which may exist at the site.

♦ *9.1.2 - Activities*

This phase encompasses desk-based research and *site reconnaissance*. The research involves the collection and review of all readily available documentary information and consultation with relevant parties (e.g. previous occupants of the land, land owners, operators, regulatory authorities). The *site reconnaissance* should check and confirm the desk-based findings and provide further information

The information obtained from these activities should be sufficient to provide an "initial" description of the site conditions including the identification and characterisation (as far as possible) of the main areas of contamination which may be present and their likely implications for the *surrounding environment*, i.e. an "initial" *conceptual model*.

Further information on Phase 1a activities can be obtained from the following:

- Desk based research, including review of documentary information and consultation with relevant parties (e.g. landowners, operators, and regulatory authorities). Detailed information on how to undertake a desk study is provided in CLR3: *Documentary research on industrial sites*, DoE 1994. In addition, brief descriptions of, and indicative contaminants associated with, various industrial activities can be found in the DoE industry profiles, 1996/7.
- Observations made on-site during site reconnaissance to confirm the desk-based findings and provide further information. Further information on how to plan a site reconnaissance can be found in CLR2, *Guidance on the preliminary inspection of contaminated land*, DoE 1994.

♦ *9.1.3 - Steps to be followed*

(i) Undertake a *desk study* which should collate the existing information about the site. All the information sources should be recorded and suitably referenced in the report. Box 1 provides examples of the type of information required. Box 2 provides examples of potential sources of information. As an alternative to collecting much of the documentary evidence from the original sources, which can be a very time consuming, some of this information is now available from commercial companies at a relatively modest cost. The information obtained from such sources may be presented in a format that could be readily incorporated into the site report.

(ii) Use the information collected for the *desk study*, to plan and carry out the site reconnaissance. This should include the identification of any health and safety measures needed to permit safe entry onto the site, although generally this should not cause a problem for a site previously used for general agriculture. Box 1 provides examples of the type of information that should be obtained during a site reconnaissance. Box 2 provides examples of potential sources of information.

(iii) Identify and list any contamination, or possible sources of contamination, which may be present at the site. It is also essential to consider the potential nature (e.g. solid, liquid, soluble, insoluble, toxic, volatile), extent (e.g. a point source such as a fuel tank or widespread, for example as a result of historic sludge spreading), and likely behaviour of any contamination already present. This is to ensure that all possible locations on the land, or in water where contamination may be present will be adequately investigated in any subsequent phases of work. For example, compared to solid insoluble contamination, mobile *contaminants* such as liquid fuels are more likely to have spread over a wider area. Hence, where liquid fuels are thought to be present, they are likely to justify a greater proportion of the investigation effort than other, immobile or less-mobile, *contaminants*. Box 3 provides examples of relevant characteristics of contamination that should be considered.

(iv) Develop a *conceptual model* (or picture) of what the site is currently like and how any contamination may be behaving within the site and its *surrounding environment*. This model should take into account the *environmental setting*, including factors which can influence how contamination might move around the site (e.g. *geological* and *hydrogeological* conditions), potential *receptors* for the contamination(e.g. *groundwater*, surface water, humans, animals, plants) and the likely form and behaviour of the contamination. Box 4 provides an example of a simple matrix for the identification of potential *contaminants* at a site.

Box 1: Information Requirements for Phase 1a Assessment

Indicates reasonable minimum needs

Readily available background material:

- *Current ownership*
- *Size and location*
- *Current use (including site layout, operational records etc. where available) and future use of the site (including details of the proposed operation of the intensive livestock production unit).*
- *Current and (where appropriate) future use of land in the vicinity of the site*

Information obtained by desk study research:

- *Historical uses of the site and surrounding land*
- *Authorisations for Part A and B prescribed processes on site or in surrounding area*
- *Waste management licences and exemptions on site or in surrounding area*
- *Local geology (drift and solid)*
- *Local surface water and groundwater hydrology and surface/groundwater water quality, pollution incidents*
- *Surface water and groundwater catchment and source protection zones, groundwater vulnerability*
- *Water abstraction details*
- *Topography*
- *Details of any accidental releases at site (in particular for already operational sites)*
- *Proximity of protected or "sensitive" habitats or species*
- *Existing site investigation, assessment and remediation records if available*
- *Details of the operation of the proposed intensive livestock production unit, including review of chemicals and materials used, stored, produced or disposed of*
- *Existing operational records, environmental audit etc. (for intensive livestock production units which are already operating)*
- *Emergency response records (e.g. exceptional events such as disposal of disinfectant, or carcasses, in disease emergencies, fire, spillages etc. – in particular for operational sites)*
- *Building control reports*
- *Effluent discharge consents*
- *Aerial photographs*
- *Planning register details*
- *Environmental health department records (e.g. statutory nuisance)*

Information obtained by site reconnaissance:

- *Access arrangements and potential for public (including unauthorised) access to the site*
- *Confirmation of site layout plus details such as the presence and condition of above ground buildings, structures, type and condition of surface covers (e.g. concrete), agricultural chemical stores, feedstores, disinfectant baths, electricity transformers), below ground structures, services*[*]
- *Evidence of disturbed ground, discoloured soil or water, subsidence, above ground deposits etc.*
- *Vegetation type and signs of distress*
- *Existing significant odours, both agricultural and non-agricultural (e.g. smell of oil, may indicate pollution, odour from existing livestock enterprises may be relevant to future complaints)*
- *Liquid discharges from the site*
- *Direction and flow of surface water run-off and presence of ponding, adequacy of drainage*
- *Confirmation of land uses in the vicinity of the site*
- *Confirmation of presence and condition of surface water*
- *Evidence of any accidental/uncontrolled releases at the site (previous or current)*
- *Confirmation of operations and practices currently being undertaken at the site*
- *Identify any potential access constraints e.g. overhead cable, operations at the site which may be relevant when planning later investigations*[*]

[*] *These may not be needed for the Phase 1a report, but could be helpful*

Box 2: Potential Sources of Information

Information the applicant should have available:

- *Current use (e.g. map/plan will show lay out of site if not a green field site and include features such as building, storage areas etc.)*
- *Intended future use (e.g. a map or plan of site showing planned production facilities)*
- *Current use of land in vicinity of site (e.g. a map showing land use around the application area, location of streams/rivers/drainage ditches)*
- *Historical uses of the site and surrounding land in ownership (e.g. from old maps and plans, aerial photographs, local knowledge, farm diaries, construction plans and blue prints)*
- *Details of any accidental releases of contaminants and pollution incidents relating to the site (in particular for already operational sites)*
- *Water abstraction details for own land e.g. location, use and volume of surface water abstractions and private abstractions from wells and springs*
- *Waste management licence(s) and exemptions for the site*
- *Details and locations of areas used (past and present) for spreading*
- *Existing site investigation, assessment and remediation records if available (or record of previous soil sampling done on farm; farm waste management plan etc)*
- *Details of the operation of the livestock installation (e.g. details of how disinfectants are disposed of, details of which chemicals/raw materials are used including volumes, storage details etc)*
- *Existing operational records, environmental audit (e.g. water use, waste management) etc.*
- *Emergency response records for operational sites (e.g. fire, spillages)*
- *Effluent discharge consents for the site*
- *Location of private services (e.g. drainage, gas, waster, electricity etc) for the site*

Available from the Local Authority:

- *Local plan information for the surrounding area (may indicate potential future changes in land use)*
- *Planning register details*
- *Building control reports*[*]
- *Definitive rights of way maps*
- *Environmental Health records (e.g. in relation to statutory nuisance)*
- *Details of other private water supplies e.g. wells and springs*
- *Location of locally important nature conservation areas*

Available from the Environment Agency:

- *Other IPC / IPPC licensed facilities in the vicinity*
- *Waste management licence(s) and exemptions for nearby sites*
- *Local hydrology and surface/groundwater water quality*
- *Pollution incidents from other sources*
- *Water abstraction details for other land owners*
- *Effluent discharge consents for sites upstream and downstream of the land*
- *Floodplain information*

Available from local libraries or from book shops:

- *Historical and current ordnance survey and other maps, aerial photographs and local history publications*
- *Local geology (e.g. map of solid and drift geology)*
- *Local detailed soil map (if available) or portion from 1:250,000 National Soil Map*
- *1:10,000 scale map showing:*
- *Topography as shown by contours*
- *Public rights of way*

Available from The Stationary Office (TSO):

- *Environment Agency Groundwater Vulnerability maps at 1:10,000 scale*

Available from English Nature or Countryside Commission for Wales:

- *Proximity of protected or "sensitive" habitats or species*

Box 3: Examples of relevant characteristics of contamination which need to be considered

Example characteristics of possible contamination present at the site:

- *Substances likely to be soluble in water (e.g. nutrients from manure/slurry, pesticides/biocides)*
- *Other sorts of mobile contaminants (e.g. fuel oil)*
- *Volatile contaminants (e.g. ammonia)*
- *Contaminants not soluble (or less soluble) in water (e.g. heavy metals)*
- *Contaminants immiscible with water (e.g. fuel oil)*
- *Possible breakdown products of contaminants*

Examples of substances which may be present and their relevant characteristics:

- *Nutrients from manure/slurry/litter – generally soluble in water and also mobile, but phosphorus may accumulate in the soil.*
- *Metals from manure/slurry/litter e.g. copper, zinc – not (very) soluble, may bind to soil particles and so accumulate in the soil, may be carried into watercourses with eroded soil particles.*
- *Metals from non-agricultural organic fertilisers, e.g. sewage sludge (heavy metals) – not soluble, may bind to soil particles and so accumulate in the soil, potentially toxic.*
- *Pesticide, herbicide, biocide residues – soluble in water, mobile.*
- *Ammonia from existing agricultural enterprises – volatile, may be deposited through rainfall, affected by wind direction, potentially damaging to vegetation.*
- *Fuel and oil – immiscible with water, mobile, slightly volatile (may be detected by smell)*

Some of these contaminants may break down into other substances with different characteristics

For sites which have been used for non-agricultural and potentially contaminating uses it may be helpful to obtain professional advice.

Box 4: Example of a simple matrix for possible contamination of a site

Former and current uses at the site[1]		***Contaminants[2] (i.e. used in previous and current activities)***				
SITE ZONE	CURRENT USES	Arsenic	Cadmium	Copper	Petroleum hydrocarbons	Landfill gas/leachate
A	Green field site	✗	✗	✗	✗	✗
B	Greenfield site in area of naturally occurring metal ores	✔	✗	✗	✗	✗
B	Greenfield site much used for slurry disposal	✗	✗	✔	✗	✗
	HISTORIC USES					
D	Landfill	✔	✔	✔	✔	✔
E	Former airfield	✗	✗	✗	✔	✗
F	Fuel storage from previous non-intensive farming use	✗	✗	✗	✔	✗

1 *Naturally occurring contamination may exist on some green field sites; sampling will identify such sites*
2 *The list of contaminants is likely to be more extensive than those shown here for illustration; this is particularly the case for sites used previously for industrial purposes*

♦ 9.1.4 - Key decisions

The next stage is to decide whether sufficient information has been collected to enable the production of an appropriate *"initial" condition* site report. In order to help decide whether further phases of work will be needed, it is recommended that the applicant complete the Decision Summary Sheet (DSS) included in section 9. An example of how to complete/use a DSS is provided in section 10. Some important general points to consider are provided below:

(i) Has sufficient information been collected to enable the production of an *"initial" condition* site report or is there a need to collect more information? It is important to remember that the questions set out in the DSS should only be answered when a reasonable minimum amount of information has been collected (as set out in Box 1). In answering the questions, consider whether a further more detailed *desk study* or site reconnaissance is required in order to give sufficient confidence about the assessment of the presence of contamination and the consequences of any subsequent actions. If so, this information should be collected and the questions answered on the basis of all of the information obtained.

Is the operation of the proposed (or current) intensive livestock production unit likely to add contamination to the site that is similar to that which may already exist? If so, the applicant should use the Decision Summary Sheet (DSS) in section 9 of this document, in association with the Decision Criteria Sheets, to determine the need for further information on the existing levels of contamination.

(ii) Where there is no evidence to indicate that contamination may exist at the site, which is similar in nature to any substances that are used or may be produced/generated by the operations or presence of the intensive livestock production unit, it should be possible to demonstrate that no further phases need to be undertaken. The Phase 1a findings should then be documented. A suggested format for such reports is provided in Box 5. The "initial" site report process may then be exited.

(iii) Where there is evidence to indicate that contamination may exist consider proceeding to either **Phase 1b, Phase 2 or a combined Phase 1b and 2 assessment, unless sufficient information has already been collected through current or previous investigations which allows the production of the site report.** The information presented in Box 8 may be useful when considering the sufficiency of the information already available.

Box 5: Minimum Reporting Requirements for Phase 1a

1. **INTRODUCTION AND BACKGROUND INFORMATION**
2. **OBJECTIVES OF PHASE 1a**
3. **SOURCES OF INFORMATION CONSULTED**
4. **SITE RECONNAISSANCE DETAILS**
5. **SUMMARY OF FINDINGS**
   - *site description*
   - *geology and hydrogeology*
   - *site history (archive search and land use chronology)*
   - *relevant information about chemicals and other materials, used, produced, stored or disposed of at the site (including details of land spreading practices where appropriate)*
   - *relevant details of the proposed operation of the site*
   - *history of incidents*
   - *consultation with statutory authorities/review of statutory records*
   - *consultation with other parties*
   - *other data gathering*
6. **DISCUSSION OF RESULTS INCLUDING DEVELOPMENT OF CONCEPTUAL MODEL**
7. **DATA INTERPRETATION**
   - *proposal of "initial" conditions for the site (the baseline condition)*
   - *main limitations/constraints on the investigation findings/baseline proposals (e.g. relating to data quality and quantity)*
8. **CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER ACTION**
9. **REFERENCE LIST**
10. **TECHNICAL APPENDICES CONTAINING SUPPORTING INFORMATION**

    e.g. site location plan, site layout plan, record of correspondence with information sources, site reconnaissance record, photographic record (if taken)

♦ 9.2 - Phase 1b assessment

♦ 9.2.1 - Objectives

To gain a better understanding of the site and the contamination present and to refine the conceptual model developed during Phase 1a.

♦ 9.2.2 - Activities

This phase encompasses further desk-based research as well as exploratory investigations in order to determine in greater detail the nature, likely location and behaviour of potential *contaminants* at the site.

More detailed technical advice on how to undertake this stage can be found as follows:

- identifying contaminant sources, and understanding their behaviour and effects – CLR3: *Documentary research on industrial sites*, DoE 1994. In addition, brief descriptions of, and indicative contaminants associated with, various industrial activities can be found in the DoE industry profiles, 1996/7;
- developing soil sampling strategies - Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination, R&D Technical Report P5-066/TR, Environment Agency, 2001 and CLR 4: *Sampling Strategies for Contaminated Land*, DoE 1994;
- appropriate health and safety precautions – HS(G)66: *Protection of workers and the general public during development of contaminated land*, HSE, 1991; CIRIA Report Number 132: *A guide to safe working practices on contaminated sites*, 1996; appropriate steps to anticipate, and if necessary, protect against possible environmental impacts of *site investigation* works (intrusive investigation works may create new exposure or *migration* pathways, e.g. where boreholes are drilled without protective casing or sealing; or where excavated materials arising from trial pits are left at, or spread about, the surface of a site) – CIRIA Special Publications 103: *Remedial treatment for contaminated land, Vol III, Site investigation and assessment*, 1995;
- information on the appropriateness of site investigation techniques – *Technical Aspects of Site Investigation*, R&D Technical Report P5-065/TR, Environment Agency, 2001 And *Investigation of Potentially Contaminated Sites – Code of Practice*, British Standard BS 10175, 2001.
- *Chemical Test Data on Contaminated Soils – Qualification Requirements*, ref. EAS/2703/1/6/Version3/FINAL1, Environment Agency Policy Statement.

♦ *9.2.3 - Steps to be followed*

(i) Review all the existing information and identify the priority information which needs to be collected during Phase 1b. Information is likely to be needed which will confirm contamination in certain areas of the site. Any further desk-based research should be done prior to carrying out any exploratory/intrusive *site investigation*.

(ii) Using the available information, plan and carry out an appropriate exploratory investigation of the site.

(iii) Review and refine the *conceptual model* developed during Phase 1a in the light of the information gained in Phase 1b. The further information should confirm the presence of any contamination where possible. Box 6 shows an example of the type of factors to be taken into account when refining the model.

Box 6: Factors to be taken into account when refining the conceptual model

Known or likely characteristics of contamination already present in the site, e.g.

- *nature of contamination (e.g. contaminated soils)*
- *composition and concentration of contaminant(s)*
- *extent or amount of contamination*
- *toxicity (including carcinogenic potential)*
- *mobility, solubility, volatility of contaminant(s)*
- *persistence of contaminant(s)*
- *potential for **biodegradation** or **bioaccumulation** of the contaminant(s).*

♦ 9.2.4 - Key decisions

The next stage for the Applicant is to decide whether sufficient information has been collected to enable the production of the site report. On completion of the Phase 1b investigation the same decision process should be followed as described in 8.1.5 above using the Decision Summary Sheet (DSS) and Decision Criteria Sheets contained in section 9. An example of how to use/complete the DSS is provided in section 10.

Note that the questions set out in the DSS should not be answered unless a reasonable minimum amount of information has been collected. Where further information can be collected during this phase to increase the confidence about the presence or absence of contamination then this information should be collected and the DSS questions answered on the basis of all of the information collected.

Where there is no evidence to indicate that contamination may exist at the site, which is similar in nature to any substances that are used or may be produced/generated by the operations or presence of the intensive livestock production unit, it should be possible to demonstrate that no further phases need to be undertaken. The Phase 1b findings should then be documented. A suggested format for such reports is provided in Box 7. The "initial" site report process may then be exited.

Guidance on the sufficiency of the information available and the possible need to proceed to a Phase 2 investigation is given in Box 8.

Box 7: Minimum Reporting Requirements for IPPC Phase 1b Site Report

1. **INTRODUCTION AND BACKGROUND INFORMATION**
2. **OBJECTIVES OF PHASE 1B**
3. **RATIONALE FOR EXPLORATORY INVESTIGATION**
4. **DETAILS OF EXPLORATORY SITE INVESTIGATION STRATEGY, e.g.**
   - *numbers and types of samples collected/tests conducted*
   - *sampling locations*
   - *laboratory analysis*
5. **SUMMARY OF EXPLORATORY INVESTIGATION FINDINGS, e.g.**
   - *on-site investigations*
   - *results of in-situ testing*
   - *results of laboratory analysis*
6. **DESCRIPTION OF DATA AND PRESENTATION OF CONCEPTUAL MODEL TAKING INTO ACCOUNT THE LIKELY NATURE, EXTENT AND BEHAVIOUR OF ANY CONTAMINATION AT THE SITE**
7. **DISCUSSION OF FINDINGS (INCLUDING CONFIDENCE LEVELS GIVEN THE SCOPE OF EXPLORATORY INVESTIGATION WORK)**
8. **DATA INTERPRETATION**
   - *proposal of baseline conditions for the site*
   - *main limitations/constraints on the investigation findings/baseline proposals (e.g. related to data quality and quantity)*
9. **CONCLUSIONS AND RECOMMENDATIONS FOR ANY FURTHER ACTION**
10. **TECHNICAL APPENDICES, e.g.**

    Location plan showing positions of exploratory holes, results of laboratory analysis, results of in situ testing, description of exploratory holes, photographs (if taken)

Box 8: Some factors to take into account when deciding whether to carry out a more detailed (Phase 2) site investigation (where Phase 1b exploratory investigation or information from previous site investigations is available e.g. under planning regulations)

*More detailed sampling is likely to be required where **contaminant** concentrations are likely to vary significantly over the area of the site. Applicants should take the following "weight of evidence" factors into account when deciding whether further sampling is required within individual zones on the site:*

- *Likely origins and distribution of the contamination (e.g. point sources of contamination such as tanks, or widespread/diffuse sources of contamination, such as historical land spreading practices).*
- *Location and extent of known or suspected waste disposal, handling and related activities.*
- *Extent to which visual and other field observations made during the site investigation can be used to infer likely ground conditions in un-sampled locations - specific aspects include:*
  - *nature, depth and extent of fill and other materials*
  - *presence and type of sub-surface features such as under floor slurry channels*
  - *location and extent of discoloration, abnormal textures or odours*
  - **seepage of liquids into, and discoloration of, surface waters*
  - *evidence of existing effects (e.g. on vegetation, building materials etc.) in specific parts of the site*
  - *likely behaviour and extent of contaminants in the soil and water environment.*
- *Extent to which available information on the concentration of contaminants in soils already shows a reasonable possibility that the concentrations can be used with confidence to predict soil concentrations in un-sampled locations.*
- *The degree to which all areas of the site have been investigated, in particular those areas that are suspected of having contamination present.*
- *The degree to which analysis of samples from all appropriate media (i.e. soil and water) for suspected contaminants identified in the desk study, site visit and exploratory investigations have been interpreted.*
- *The attention which has been paid to characterising the nature and extent of those contaminants/types of contaminants which may be used in the future at the installation, such that any future increases in contamination can be adequately assessed.*
- *The extent to which appropriate sample collection, transport, storage, handling and analysis techniques have been followed.*
- *The extent to which the potential of mobilisation of contaminants and the potential for breakdown and changes in the composition of contaminants has been taken into account in relation to the sampling strategy at the site.*

Where there are actual or proposed discharges or disposals to land or to groundwater, the needs of prior investigation and requisite surveillance to ensure compliance with the Groundwater Directive should be considered in tandem with the above, to avoid duplication of effort

♦ *9.3 - Phase 2 assessment*

♦ *9.3.1 - Objectives*

To collect additional detailed information and data on the site conditions to enable the production of an "initial" condition site report.

♦ *9.3.2 - Activities*

In broad terms this phase encompasses the main *site investigation*. It involves further (and sufficient) data collection to better characterise the contamination present at the site.

This phase marks the point at which substantial resources may be required for *site investigation* and associated data gathering activities. It is particularly important that there is a clear plan and understanding of the type and amount of information required, and from which location or zone within the site and over what period (see section 6).

The following guidance on matters relevant to Phase 2 is available:

- developing sampling strategies – Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination, R&D Technical Report P5-066/TR, Environment Agency, 2001 and CLR4: *Sampling Strategies for Contaminated Land*, DoE, 1994;
- appropriate health and safety precautions – HS(G)66: *Protection of workers and the general public during development of contaminated land*, HSE, 1991; CIRIA Report Number 132: *A guide to safe working practices on contaminated sites*, 1996;
- environmental protection implications of site investigation works – CIRIA Special Publications 103: *Remedial treatment for contaminated land, Vol III, Site investigation and assessment*, 1995;
- information on the appropriateness of site investigation techniques – *Technical Aspects of Site Investigation*, R&D Technical Report P5-065/TR, Environment Agency, 2001;
- *Chemical Test Data on Contaminated Soils – Qualification Requirements*, ref. EAS/2703/1/6/ Version3/FINAL1, Environment Agency Policy Statement.

♦ 9.3.3 - Steps to be followed

Once this stage is reached a specialist consultant may be necessary to plan and undertake the detailed investigation and to report the findings. The following key steps need to be considered and completed:

- Review the existing data for the site and decide what further information is required to enable the *"initial" conditions* at the site to be further defined.
- Use this to plan and carry out the *site investigation* works needed to generate the necessary additional data. Ensure that any health and safety and environmental protection measures needed to permit safe investigation of the site are identified and addressed.
- The Applicant should then assess the data collected during the *site investigation* to establish whether further information is required. Box 8 provides some information that may help in establishing whether sufficient information has been collected. Where further data are required these should be collected prior to collation of the site report.

The suggested format for the production of a site report where Phase 2 has been completed is provided in Box 9.

♦ 9.3.4 - Key decisions

The Applicant must decide whether sufficient information has been collected to produce an *"initial" condition* for the site. Refer to section 8.1.5 and the Decision Summary Sheet and Decision Criteria Sheets contained in section 9.

When the Phase 2 assessment has been completed and sufficient information has been collected to identify the *"initial" condition* of the site a suggested format for the site report is provided in Box 9.

Box 9: Minimum Reporting Requirements for IPPC Phase 2 Site Report

1. INTRODUCTION

2. BACKGROUND TO THE ASSESSMENT

- *site details*
- *summary of Phase 1a and Phase 1b (if reported separately - if not this report should address the requirements for Phase 1a and Phase 1b reporting as defined in Boxes 4 and 6).*

3. OBJECTIVES OF THE ASSESSMENT

- *context within IPPC regime e.g. to define "initial" site conditions etc*
- *description of general approach e.g. followed the Environment Agency guidance ,or used a different approach*
- *different types of contaminants to be considered.*

4. SITE INVESTIGATION (DATA COLLECTION) DETAILS

- ***Description of site investigation and related***
- ***Activities***
  - *details of and reasoning for sampling strategy (including referencing to staged investigations if relevant)*
  - *sampling methods for soil, water and gas*
  - *number, location and type of samples collected*
  - *in-situ testing details*
  - *monitoring activities including methods, equipment specification, duration/frequency, ambient conditions etc.*
  - *sample handling, shipment and storage details*
  - *field Quality Assessment/Quality Control data*
  - *limitations/constraints on field works.*
- ***Description of laboratory analysis***
  - *details of and reasoning for selection of test parameters*
  - *sample preparation and analysis methods*
  - *limitations/constraints on laboratory analysis.*

5. SUMMARY OF SITE INVESTIGATION AND ANALYSIS FINDINGS

- *on-site observations*
- *in-situ testing results*
- *monitoring data*
- *laboratory test data*
- *laboratory Quality Assessment/Quality Control data*
- *identification of invalid data*
- *data summaries.*

6. DATA INTERPRETATION

- *proposal of baseline conditions for the site*
- *main limitations/constraints on the investigation findings/baseline proposals (e.g. relating to data quality and quantity).*

7. CONCLUSIONS

8. REFERENCES

TECHNICAL APPENDICES/SUPPORTING INFORMATION

For example:

A. Site investigation details (e.g. site location and layout, photographs, Sampling locations, trial pit/borehole logs, sample descriptions, in-situ test data, monitoring results, equipment details)

B. Laboratory analysis (e.g. certificates of analysis, Quality Assessment/Quality Control results, summary data).

Section 10 – Decision Summary Sheets

Decision Summary Sheet - Phase 1a and 1b

Note to DSS

Decision Summary Sheet (DSS) should not be completed unless a reasonable minimum amount of information has been collected and the assessor considers that the information is complete, relevant, reliable and clear. Assessors should take into account the criteria set out in Decision Criteria Sheets boxes 1.1 and 1.2 to judge whether to answer "yes" or "no" to the questions listed. In the course of considering the questions, the assessor may decide to collect more information in order to improve confidence in the answers. The questions should then be answered on the basis of all of the available information. If the site has been split into zones or areas for the purpose of the production of the site report, a DSS will need to be completed for each zone/area to aid the consideration of whether more information is required on a zone-by-zone basis. In addition, where there are any known or planned changes to the site, surrounding environment or operation of the site (e.g. a change of chemicals or materials used at the site) the assessor would be wise to complete the DSS with these changes in mind.

Project Site Name: .....……..…… Zone …… Assessor: .....……

Date: .....……. Signature:.....

		YES	NO
1	**POTENTIAL CONTAMINATION AT THE SITE (Decision criteria sheet 1.1)**		
	• Does the available evidence indicate that contamination is likely to exist at the site which is similar in nature to any substances which are used or may be produced / generated by the operation or presence of the intensive livestock production unit? **Remember to consider:** - that contamination may have arisen from current or past uses of the site; - that a relevant authorisation or farm management plan for the site may indicate that there is the presence of pre-existing contamination at the site. "Relevant" in this case means an authorisation which indicates that a process/practice has been used at the site in which materials similar to those currently or proposed to be used at the production unit have been handled in the past	❑	❑
	• Are there any relevant analytical data available for the areas of the site which are suspected of being contaminated?	❑	❑
	• Are these analytical data sufficient for the purposes of the site report?	❑	❑
2	**DATA QUALITY (Decision Criteria Sheet 1.2)**		
	• Does the information provide sufficient levels of confidence and / or comply with in-house requirements (if available) etc.?	❑	❑
3	**LEVEL OF INFORMATION**	**Min**	**>Min**
	• Indicate the level of information on which the answers have been based (See Box 1 for Phase 1a).	❑	❑

Decision Criteria Sheet 1.1: Indicators of Relevant Pollutant Linkages (Phase 1a)

Evidence to Support the Existence of Contamination at the site

- Current or historical use of the site or surrounding land for the handling, processing, storage or disposal of materials with the potential to cause contamination
- Documentary evidence (e.g. planning records, site investigation reports) of the presence of materials with the potential to cause contamination
- History of local nuisance, accidents, fires, spillages
- Putrescible material deposited on, or within an appropriate distance (given likely ground conditions) of the site
- Visual evidence (e.g. obvious discoloration, odours, uneven or made ground, pits, ponds, lagoons, condition of areas used for livestock production and associated activities)
- Existing adverse effects (e.g. health effects, vegetation die-back)
- Spreading of waste materials on land or discharges/disposals to ground

Decision Criteria Sheet 1.2: Data Quality Criteria (Phase 1a and 1b)

Completeness

Data can be considered complete if a reasonable minimum amount of information has been collected.

Relevance

Data can be considered relevant if the assessor is confident that :

Phase 1a:

- all the appropriate document sources relevant to the site use have been consulted

Phase 1b:

- the presence of all likely relevant *contaminants* has been investigated

Reliability

Data can be considered reliable if:

Phase 1a:

- significant gaps in the historical/current land use record have not been found
- unavoidable information gaps and uncertainties have been identified and taken into account in the assessment
- site reconnaissance information is generally consistent with documentary records
- an appropriate assessment procedure has been used
- suitably qualified and competent professionals (either internal or external) have been used to collect and interpret the data

Phase 1b:

- trial pits/boreholes/spot samples etc. have been appropriately located
- samples have been appropriately collected, transported and stored
- appropriate testing and analysis has been carried out
- an appropriate assessment procedure has been used
- unavoidable data gaps and uncertainties (to include possible access constraints, temporal effects, likely pattern and distribution of contamination) have been identified and taken into account in the assessment
- suitably qualified and competent professionals (either internal or external) have been used to collect and interpret the data

Clarity

Data can be considered to be clear if there is no ambiguity about their origins, meaning or interpretation

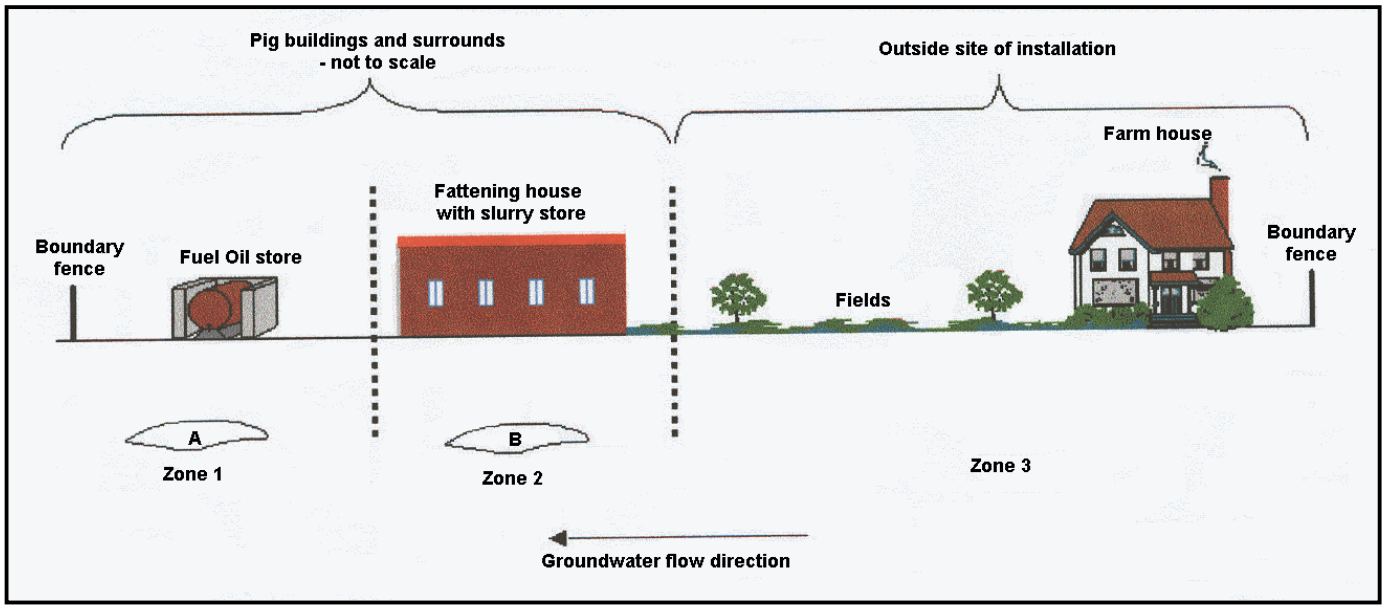

Figure C2 - Example Cross Section of Site

Section 11 – Worked example to explain the completion of the Decision Summary Sheets

In this example an Operator is producing a site report as part of an application for an IPPC permit. The example has been simplified to assist in highlighting a number of the key issues that need to be considered during the production of the report.

THE SITE:

Background

The site is an existing pig unit that produces bacon pigs grown from weaners brought in at 30kg. A Phase 1a assessment has been carried out. The Operator is now working through the guidance on the production of a site report in an IPPC permit application to consider whether further information needs to be collected.

Current information

The situation at the site is summarised in the diagram below and in the following text. The diagram does not constitute a complete *conceptual model* for the site as it has been simplified for the purposes of highlighting a number of key issues.

On the basis of the desk study and *site reconnaissance* information, the site has been split into two zones, namely:

Zone 1: A bunded area used for the storage of liquid feed and fuel oil;

Zone 2: An area containing the fattening unit which has slatted floor buildings with under floor slurry channels which has just been constructed but not yet brought into use;

The farmhouse and its curtilage are outside the site of the intensive livestock production unit (although they are within the "site" boundary fence) as this area is not integral to the operation of the installation. The fields are outside the unit and are not required to be covered in the site report except to record that investigations have taken place which are relevant to the manure management plan.

The site has been zoned on the basis of the current use of the site. However, in other situations it will be appropriate to zone on the basis of previous uses or both previous and current uses. The appropriateness (or otherwise) of zoning the site will depend on the types of activities which have been or are being carried out and the potential *contaminants* which may be present at the site.

Analytical data are only available for the fields surrounding the site. The data were collected one year ago when spreading of imported material was being considered, in order to establish the levels of heavy metals present. The spreading was not subsequently carried out for other reasons and only manure arising from the unit has been spread on this land.

The possible presence of contamination has been identified in the areas identified with *contaminants* A and B on the figure. Only desk-based and *site reconnaissance* information is available and no sampling has been carried out to date. *Contaminants* A is the same (or similar) to the materials currently used or produced at the site but *contaminant* B is not.

The decision summary sheet will need to be completed for each of the zones in turn and the following issues will need to be considered when deciding the answers to the questions:

ALL ZONES:

(i) The activities which may have taken place on the site in (or in the vicinity of) the zone;

(ii) The current activities which are taking place on the site in (or in the vicinity of) the zone;

(iii) The potential for any of these activities to have caused contamination;

(iv) The potential for any current or future activities to generate future contamination;

(v) The types of contamination that may have been/could be formed and how these may behave at the site (e.g. Will they migrate? What direction will they migrate? Will they degrade/change into other *contaminants*?);

(vi) The potential for contamination from outside of the zone to migrate into the zone i.e. consider the types of contamination which may be in the surrounding area / zones.

ZONE 1:

In addition to the issues to be considered for all zones, the following issues also need to be considered:

(i) The type and quantity of contamination which may have been caused before the bunding was installed;

(ii) The type of contamination which may migrate under this part of the site and may be attributed to the storage of feed and fuel oil in this area;

(iii) The potential for future contamination to be caused;

(iv) The fact that in the majority of cases the Environment Agency would not require samples to be taken which may compromise the integrity of the bund but that samples around the bunded area may be useful and possible. The potential for contaminant A to be present under this area already and the need to quantify the levels of contamination prior to operation under the IPPC permit to ensure that any contamination already present is not confused with that generated during the operation of the intensive livestock production unit under IPPC.

ZONE 2:

In addition to the issues to be considered for all zones, the following issues also need to be considered:

(i) The types and quantities of materials to be used, and the substances which will be produced in the pig building, e.g. disinfectant for washing down, phosphates in manure etc;

(ii) The potential for these to generate contamination e.g. what areas within the zone have the greatest potential to be contaminated either from past, current or future practices?

(iii) The construction of the building including the basement / floor slab and slurry store;

(iv) The activities which may be undertaken outside the building which have the potential to cause contamination, e.g. foot baths;

(v) The location and construction of services bearing in mind that the Environment Agency will not be expecting samples to be taken in the vicinity of services due to the risks associated with this;

(vi) The fact that contaminant B is not to be used at the site and that the pig unit has not yet been operated and therefore could not have caused contamination.

Fields:

The fields, which are not considered to be part of the unit, will be fertilised with slurry from the unit and, in accordance with the Code of Good Agricultural Practice for the Protection of Water, a manure management plan will be prepared including information on the nutrient levels of the soils. Data from the earlier sampling is recent enough to be relevant for this and will be used as part of the manure management planning.

Farmhouse:

This area is not considered to be part of the site of the installation in this example, however, if there was the potential for contamination to occur which was similar in nature to that which may occur on the site (e.g. if there was a domestic fuel oil store) it may be worth considering quantifying the contamination from this to ensure that the contamination was not attributed to the operation of the installation if the contamination migrated under the site and was discovered in the “final” site report. This extra investigation would not be required as part of the site report to comply with the information required to enable a permit to be issued.

Completion of the DSS for each zone

Example DSS have been completed for each zone and a summary note has been added at the end of each stating whether further investigation is required in that zone.

Zone 1

Decision Summary Sheet - Phase 1a and 1b

Note to DSS

Decision Summary Sheet (DSS) should not be completed unless a reasonable minimum amount of information has been collected and the assessor considers that the information is complete, relevant, reliable and clear. Assessors should take into account the criteria set out in Decision Criteria Sheets boxes 1.1 and 1.2 to judge whether to answer "yes" or "no" to the questions listed. In the course of considering the questions, the assessor may decide to collect more information in order to improve confidence in the answers. The questions should then be answered on the basis of all of the available information. If the site has been split into zones or areas for the purpose of the production of the site report, a DSS will need to be completed for each zone/area to aid the consideration of whether more information is required on a zone-by-zone basis. In addition, where there are any known or planned changes to the site, surrounding environment or operation of the site (e.g. a change of chemicals or materials used at the site) the assessor would be wise to complete the DSS with these changes in mind.

Project Site Name: *Example*.....…….....…… Zone 1…… Assessor: .....……

Date: .....……. Signature:.....

		YES	NO
1	**POTENTIAL CONTAMINATION AT THE SITE (Decision criteria sheet 1.1)**		
	• Does the available evidence indicate that contamination is likely to exist at the site which is similar in nature to any substances which are used or may be produced / generated by the operation or presence of the intensive livestock production unit? **remember to consider:** - that contamination may have arisen from current or past uses of the site; - that a relevant authorisation or farm management plan for the site may indicate that there is the presence of pre-existing contamination at the site. "Relevant" in this case means an authorisation which indicates that a process/practice has been used at the site in which materials similar to those currently or proposed to be used at the production unit have been handled in the past *This decision was made on the basis of the following information:* - *The area is already in use for the storage of fuel oil and liquid feed, therefore it is possible that there may be chemicals/substances present that are likely to be similar in nature to those that will be used under IPPC;* - *The substances will continue to be stored and used in this area and therefore there is the potential to add to the contamination which may already be present.*	☑	❑
	• Are there any relevant analytical data available for the areas of the site which are suspected of being contaminated? *This decision was made on the basis of the following information:* - *There are no analytical data currently available for this area.*	❑	☑
	• Are these analytical data sufficient for t urposes of the site report? *This decision was made on the basis of the following information:* - *There are no analytical data currently available for this area.*	❑	☑
2	**DATA QUALITY (Decision Criteria Sheet 1.2)**		
	• Does the information provide sufficient levels of confidence and / or comply with in-house requirements (if available) etc.?	☑	❑

This decision was made on the basis of the following information:
- *There are no analytical data available*
- *The information on previous, current and future use of the site is reliable*
- *All relevant information has been collected, reviewed and is sufficient for its purpose.*
- *The data available provide a sufficient level of confidence (this is based on an assessment of criteria Decision Criteria Sheet 1.2).*

3	**LEVEL OF INFORMATION**	**Min**	**>Min**
•	Indicate the level of information on which the answers have been based (See Box 1 for Phase 1a). *This decision was made on the basis of the following information:* *The level of information collected was in line with the minimum data requirements listed in Box 1 of this guidance*	☑	❑

Further investigation of Zone 1 is therefore **likely to be required** as there are no analytical data to quantify levels if contaminant A which is believed to be beneath Zone 1. This is required so that any future contamination of this nature can be quantified. As a result, remediation of the site prior to closing would only require restoration to a condition equivalent to site conditions immediately prior to issue of the permit.

Zone 2

Decision Summary Sheet - Phase 1a and 1b

Note to DSS

Decision Summary Sheet (DSS) should not be completed unless a reasonable minimum amount of information has been collected and the assessor considers that the information is complete, relevant, reliable and clear. Assessors should take into account the criteria set out in Decision Criteria Sheets boxes 1.1 and 1.2 to judge whether to answer "yes" or "no" to the questions listed. In the course of considering the questions, the assessor may decide to collect more information in order to improve confidence in the answers. The questions should then be answered on the basis of all of the available information. If the site has been split into zones or areas for the purpose of the production of the site report, a DSS will need to be completed for each zone/area to aid the consideration of whether more information is required on a zone-by-zone basis. In addition, where there are any known or planned changes to the site, surrounding environment or operation of the site (e.g. a change of chemicals or materials used at the site) the assessor would be wise to complete the DSS with these changes in mind.

Project Site Name: *Example*.....…… Zone …2…… Assessor: .....……

Date: .....…….. Signature:.....

1	**POTENTIAL CONTAMINATION AT THE SITE (Decision criteria sheet 1.1)**	**YES**	**NO**
•	Does the available evidence indicate that contamination is likely to exist at the site which is similar in nature to any substances which are used or may be produced / generated by the operation or presence of the intensive livestock production unit? **remember to consider:** - that contamination may have arisen from current or past uses of the site; - that a relevant authorisation or farm management plan for the site may indicate that there is the presence of pre-existing contamination at the site. "Relevant" in this case means an authorisation which indicates that a process/practice has been used at the site in which materials similar to those currently or proposed to be used at the production unit have been handled in the past	❑	☑

This decision was made on the basis of the following information:
- *There is the possibility of contamination around and possibly below the existing housing arising from previous activities but this contamination is not similar in nature to that expected from the installation.*
- *The pig unit has not been operated.*
- *There is the potential for the operation of the pig buildings to cause contamination in the future.*

•	Are there any relevant analytical data available for the areas of the site which are suspected of being contaminated?	❑	☑

This decision was made on the basis of the following information:
- There are no analytical data currently available for this area.

•	Are these analytical data sufficient for the purposes of the site report?	❑	☑

This decision was made on the basis of the following information:
- *There are no analytical data currently available for this area.*

2	**DATA QUALITY (Decision Criteria Sheet 1.2)**		
•	Does the information provide sufficient levels of confidence and / or comply with in-house requirements (if available) etc.?	☑	❑

This decision was made on the basis of the following information:
- *There are no analytical data available*
- *The information on previous, current and future use of the site is reliable*
- *All relevant information has been collected, reviewed and is sufficient for its purpose.*
- *The data available provide a sufficient level of confidence (this is based on an assessment of criteria Decision Criteria Sheet 1.2).*

		Min	**>Min**
3	**LEVEL OF INFORMATION**		
•	Indicate the level of information on which the answers have been based (See Box 1 for Phase 1a).	☑	❑

This decision was made on the basis of the following information:
- *The level of information collected was in line with the minimum data requirements listed in Box 1 of this guidance.*

Further investigation of Zone 2 is therefore **unlikely to be required,** as the contamination already present is not similar in nature to that which maybe caused by the operation of the installation and the pig unit has not been operated.