15/11/2017

EPA Licence P0640-01

Review Application

In respect of pig farm located at

Tullynaskeagh,
Bailieboro,
Co. Cavan

On Behalf of

John Kiernan

C/o Skeagh Farms,
Ballinamoney,
Bailieboro,
Co. Cavan.

CLW Environmental Planners Ltd.

C.L.W. Environmental Planners
. Mews
23 Farnham Street
Cavan
Tel:049 4371447
E-mail info@clw.ie

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Industrial Emissions Activity Licence

Application Form
Pig & Poultry Sector

EPA Reg. No: *(Office use only)*	

*ELECTRONIC COPIES OF THE APPLICATION **MUST** BE SUBMITTED IN ACCORDANCE WITH THE "INSTRUCTIONS FOR LICENCE APPLICANTS" DOCUMENT AT THE LINK BELOW.*

FAILURE TO DO SO MAY RESULT IN A DELAY IN PROCESSING YOUR APPLICATION.

http://www.epa.ie/pubs/forms/lic/industrial%20emissions/instructionsforapplicantsreapplicationform.html

This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the EPA Act 1992, as amended.

Environmental Protection Agency
P.O. Box 3000, Johnstown Castle Estate, Co. Wexford
Telephone : 053-9160600 Fax : 053-9160699

Tracking Amendments to Application Form

Version No.	Date	Amendment since previous version	Reason
V.1.	2013	N/A	Introduction of Industrial Emissions (Licensing) Regulations 2013
V.2.0	2014	Amendments to Section B and I	Clarification on IE (Licensing) Regulations 2013
V.3.0	2014	Amended Section C, J and K.	To implement the Board's Decision at its 761st Licensing Meeting of the EPA regarding Environmental Liabilities and Financial Provision.
V.4.0	2015	Amendments to Section I.5	Environmental Considerations, Main alternatives and BAT
V.5.0	June 2015	Amendments to Section A	To require summary table of impacts in Non-Technical summary
		Amendment to Section B.1	Change from "Owner/Operator" to "Applicant"
		New Section B.3B	In relation to Fees
		Amendments to Section B.6	Additional requirements in relation to planning history and the submission of EISs.
		Amendments to Section L	To reflect BAT & IED requirements

Environmental Protection Agency

Application for an industrial Emissions Licence (Pig & Poultry Sector)

Environmental Protection Agency Act, 1992, as amended.

CONTENTS

INTRODUCTION

A valid application must contain the information prescribed in the Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations, 2013. **The applicant is strongly advised to read the *Application Guidance Notes* for Pig & Poultry, available from the EPA.**

The applicant must conform to the format set out in the guidance notes for applications (available from the EPA). Each page of the completed application form must be numbered, e.g. *page 5 of 45*, etc. Also duplicated pages from the application form should be uniquely numbered, e.g. page 5(i) of 45, etc. **The basic information should for the most part be supplied in the spaces given in application form** and any supporting documentation should be supplied as attachments, as specified. Consistent measurement units must be used throughout.

The applicant should note that the application form has been structured so that it requires information to be presented in an order of progressive detail.

When it is found necessary, additional information may be provided on supplementary attachments which should be clearly cross referenced with the relevant sections in the main document.

While all sections in the application form may not be relevant to the activity concerned, the applicant should look carefully through all aspects of the form and provide the required information, in the greatest possible detail.

All maps/drawings/plans must be no larger than A3 size and scaled appropriately such that they are clearly legible. In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.

Information supplied in this application, including supporting documentation will be put on public display and open to inspection by any person. Should the applicant consider information to be confidential, this information should be submitted in a separate enclosure bearing the legend "In the event that this information is deemed not to be held as confidential, it must be returned to .....". In the event that information is considered to be of a confidential nature, then the nature of this information, and the reasons why it is considered confidential (with reference to the "Access to Information on the Environment" Regulations) should be stated in the Application Form, where relevant.

CHECK LIST FOR REGULATION 9 COMPLIANCE

Regulation 9 of the Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations, 2013, sets out the statutory requirements for information to accompany a licence application. The application form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in Regulation 9. In order to ensure a legally valid application in respect of Regulation 9 requirements please complete the following check-list.

Regulation 9(2)(a) (i) give the name, address and telephone number of the applicant and, if different, any address to which correspondence relating to the application should be sent and, if the applicant is a body corporate, the address of its registered or principal office,

LOCATION	Section B.1	
CHECKED	**Applicant** ☒	**Official** ☐

(a)(ii) give the location or postal address (including where appropriate, the name of the relevant townland or townlands) and the National Grid reference of the premises to which the activity relates,

LOCATION	Section B.2	
CHECKED	**Applicant** ☒	**Official** ☐

(a)(iii) give the name of the planning authority in whose functional area the activity is or will be carried on,

LOCATION	Section B.6	
CHECKED	**Applicant** ☒	**Official** ☐

(a)(iv) in the case of a discharge of any trade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority, give the name of the sanitary authority in which the sewer is vested or by which it is controlled,

LOCATION	Section B.6	
CHECKED	**Applicant** ☒	**Official** ☐

(b) give -

(i) in the case of an established activity, the number of employees and other persons working or engaged in connection with the activity on the date after which a licence is required and during normal levels of operation, or

(ii) in any other case, the gross capital cost of the activity to which the application relates,

LOCATION	Section B.4	
CHECKED	**Applicant** ☒	**Official** ☐

(c)specify the relevant class or classes in the First Schedule to the Act to which the activity relates,

LOCATION	Section B.3	
CHECKED	**Applicant** ☒	**Official** ☐

(d) In accordance with Section 87(1B)(a) of the EPA Acts of 1992 to 2013 in the case where an application for permission for the development comprising or for the purposes of the industrial emissions directive activity to which the application for the licence relates is currently under consideration by the planning authority or An Bord Pleanála, a written confirmation from the planning authority or An Bord Pleanála, as appropriate, of that fact together with either:

(i) a copy of the environmental impact statement, 2 hard copies and 2 electronic copies or in such form as may be specified by the Agency, that was required to be submitted with the application for planning permission, or

(ii) a written confirmation from the planning authority or An Bord Pleanála that an environmental impact assessment is not required by or under the Act of 2000.

LOCATION	Section B.6	
CHECKED	**Applicant** ☒	**Official** ☐

(e) In accordance with Section 87(1B)(b) of the EPA Acts of 1992 to 2013 in the case where permission for the development comprising or for the purposes of the industrial emissions directive activity to which the application for the licence relates has been granted, a copy of the grant of permission together with either:

(i) a copy of the environmental impact statement, 2 hard copies and 2 electronic copies or in such form as may be specified by the Agency, that was required to be submitted with the application for planning permission, or

(ii) a written confirmation from the planning authority or An Bord Pleanála that an environmental impact assessment was not required by or under the Act of 2000.

LOCATION	Section B.6	
CHECKED	**Applicant** ☒	**Official** ☐

(f) specify the raw and ancillary materials, substances, preparations, fuels and energy which will be produced by or utilised in the activity,

LOCATION	Section H	
CHECKED	**Applicant** ☒	**Official** ☐

(g) describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems, and operating procedures for the activity,

LOCATION	Section D	
CHECKED	**Applicant** ☒	**Official** ☐

(h) indicate how the requirements of section 83(5)(a)(i) to (v) and (vii) to (xa) of the EPA Acts shall be met, having regard, where appropriate, to any relevant specification issued by the Agency under section 5(3)(b) of the EPA Acts or any applicable BAT conclusions adopted in accordance with Article 13(5) of the IED and the reasons for the selection of the arrangements proposed,

LOCATION	Section L	
CHECKED	**Applicant** ☒	**Official** ☐

(i) give particulars of the source, nature, composition, temperature, volume, level, rate, method of treatment and location of emissions, and the period or periods during which the emissions are, or are to be, made,

LOCATION	Section E	
CHECKED	**Applicant** ☒	**Official** ☐

(j) identify monitoring and sampling points and outline proposals for monitoring emissions and the environmental consequences of any such emissions,

LOCATION	Section F	
CHECKED	**Applicant** ☒	**Official** ☐

(k) provide:

(i) details, and an assessment, of the impacts of any existing or proposed emissions on the environment as a whole, including on an environmental medium other than that or those into which the emissions are, or are to be, made, and

(ii) details of the proposed measures to prevent or eliminate, or where that is not practicable, to limit, reduce or abate emissions,

LOCATION	Section I & F	
CHECKED	**Applicant** ☒	**Official** ☐

(l) describe in outline the main alternatives to the proposed technology, techniques and measures which were studied by the applicant,

LOCATION	Section I.8	
CHECKED	**Applicant** ☒	**Official** ☐

(m) describe the condition of the site of the installation,

LOCATION	Section I.3	
CHECKED	**Applicant** ☒	**Official** ☐

(n) provide, when requested by the Agency, in the case of an activity that involves the use, production or release of relevant hazardous substances (as defined in section 3 of the EPA Acts of 1992 to 2013) and having regard to the possibility of soil and groundwater contamination at the site of the installation, a baseline report in accordance with Section 86B of the EPA Acts of 1992 to 2013.

(o) specify the measures to be taken to comply with an environmental quality standard where such a standard requires stricter conditions to be attached to a licence than would otherwise be determined by reference to best available techniques,

LOCATION	Section I	
CHECKED	**Applicant** ☒	**Official** ☐

(p) describe the measures to be taken for minimising pollution over long distances or in the territory of other states,

LOCATION	Section I	
CHECKED	**Applicant** ☒	**Official** ☐

(q) describe the measures to be taken under abnormal operating conditions, including start-up, shutdown, leaks, malfunctions, breakdowns and momentary stoppages,

LOCATION	Section F	
CHECKED	**Applicant** ☒	**Official** ☐

(r) describe the measures to be taken on and following the permanent cessation of the activity or part of the activity to avoid any risk of environmental pollution and to return the site of the activity to a satisfactory state or the state established in the baseline report if such is required under Section 86(B) of the EPA Acts of 1992 to 2013.

LOCATION	Section K	
CHECKED	**Applicant** ☒	**Official** ☐

(s) describe the arrangements for the prevention of waste in accordance with Part III of the Act of 1996, and where waste is generated by the installation, how it will be in order of priority in accordance with section 21A of the Act of 1996, prepared for re-use, recycling, recovery or where that is not technically or economically possible, disposed of in a manner which will prevent or minimise any impact on the environment,

LOCATION	Section H	
CHECKED	**Applicant** ☒	**Official** ☐

(t) specify, by reference to the relevant European Waste Catalogue codes as prescribed by Commission Decision 2000/532/EC of 03 May 2000, the quantity and nature of the waste or wastes produced or to be produced by the activity, or the quantity and nature of the waste or waste accepted or to be accepted at the installation,

LOCATION	Section H	
CHECKED	**Applicant** ☒	**Official** ☐

(u) state whether the activity consists of, comprises, or is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2006 (S.I. No. 74 of 2006) apply,

LOCATION	Section B	
CHECKED	**Applicant** ☒	**Official** ☐

(v) describe, in the case of an activity which gives rise, or could give rise, to an emission containing a hazardous substance which is discharged to an aquifer and is specified in the Annex to Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances, the arrangements necessary to comply with the said Council Directive,

LOCATION	Section B	
CHECKED	**Applicant** ☒	**Official** ☐

(w) include a non-technical summary of information provided in relation to the matters specified in paragraphs (c) to (x),

LOCATION	Section A	
CHECKED	**Applicant** ☒	**Official** ☐

(x) include any other information required under Article 11 of the Industrial Emissions Directive,

LOCATION	Section G & I	
CHECKED	**Applicant** ☒	**Official** ☐

Regulation 9(4) An application for a licence shall be accompanied by -

(a) a copy of the relevant page of the newspaper in which the notice in accordance with Regulation 5 has been published,

LOCATION	Attachment B.7	
CHECKED	**Applicant** ☒	**Official** ☐

(b) a copy of the text of the site notice erected or fixed on the land or structure in accordance with Regulation 6,

LOCATION	Attachment B.7	
CHECKED	**Applicant** ☒	**Official** ☐

(c) a copy of the notice given to the planning authority under section 87(1)(a) of the EPA Acts of 1992 to 2013,

LOCATION	Attachment B.7	
CHECKED	**Applicant** ☒	**Official** ☐

(d) a copy of such plans, including a site plan and location map, and such other particulars, reports and supporting documentation as are necessary to identify and describe -

(i) the activity

LOCATION	Attachment B.2 & D	
CHECKED	**Applicant** ☒	**Official** ☐

(ii) the position of the site notice in accordance with Regulation 6,

LOCATION	Attachment B.7	
CHECKED	**Applicant** ☒	**Official** ☐

(iii) the point or points from which emissions are made or are to be made,

LOCATION	Attachment E	
CHECKED	**Applicant** ☒	**Official** ☐

(iv)monitoring and sampling points, and

LOCATION	Attachment F.2	
CHECKED	**Applicant** ☒	**Official** ☐

(e) a fee specified in accordance with section 99A of the EPA Acts of 1992 to 2013

LOCATION		
CHECKED	**Applicant** ☒	**Official** ☐

Regulation 9(5) A signed original, 1 hardcopy and 2 electronic copies of the application as required under paragraphs (1) and (2) or under paragraphs (1) and (3), where the application concerns a review of a licence, and the accompanying documents and particulars as required under paragraph (4) shall be submitted to the headquarters of the Agency. The 2 electronic copies of all application documentation and particulars must be in searchable PDF format on CD Rom and structured in accordance with the instructions contained in "*Instructions for Licence Applicants*" document which is available to download at: http://www.epa.ie/pubs/forms/lic/industrial%20emissions/instructionsforapplicantsreapplicationform.html

LOCATION		
CHECKED	**Applicant** ☒	**Official** ☐

CD version PROVIDED Y/N		
CHECKED	**Applicant** ☒	**Official** ☐

SECTION A NON-TECHNICAL SUMMARY

Non-Technical Summary of Industrial Emissions Licence Application

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the carrying on of the activity/activities, and describe mitigation measures proposed or existing to address these impacts. This description should also indicate the normal operating hours and days per week of the activity.

The following information must be included in the non-technical summary:

- The relevant class or classes of activity in the First Schedule of the EPA Act 1992 as amended,
- Indication of whether EIS and planning permission documents are included,
- A description of:

– the installation and its activities,
– the raw and auxiliary materials, other substances and the energy used in or generated by the installation,
– the sources of emissions from the installation,
– the conditions of the site of the installation,
– the nature and quantities of foreseeable emissions from the installation into each medium as well as identification of significant effects of the emissions on the environment,
– the proposed technology and other techniques for preventing or, where this not possible, reducing emissions from the installation,
– where necessary, measures for the prevention and recovery of waste generated by the installation,
– further measures planned to comply with the general principles of the basic obligations of the operator, i.e.,

(a) all the appropriate preventive measures are taken against pollution, in particular through application of the best available techniques;
(b) no significant pollution is caused;
(c) waste production is avoided in accordance with the waste hierarchy in Council Directive 98/2008/EC on waste and section 21A of the Waste Management Act 1996, as amended; where waste is produced, it is prepared for re-use, recycled or recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment (applicants should provide this information in the context of sections 29 (2A), 32 and 38(5A) of the Waste Management Act 1996 , as amended); energy is used efficiently;
(d) the necessary measures are taken to prevent accidents and limit their consequences;
(e) the necessary measures are taken upon definitive cessation of activities to avoid any pollution risk and return the site of operation to a satisfactory state.

– measures planned to monitor emissions into the environment.

Where an EIS is submitted as part of the licence application, summarise the likely significant effects of the activity in the following format:

Environmental Factor	Likely effects identified	Brief description of effect	Mitigation measures proposed to control effect
Human Beings	No.		
Flora and fauna	No.		
Soil	No.		
Water	No.		
Air	No.		
Climate	No.		
Landscape	No.		
Material Assets	No.		
Cultural Heritage	No.		

Supporting information should form **Attachment № A.1**

SECTION B GENERAL

B.1. Applicant

* *Applicants Name:* ***John Kiernan***

Address: ***Ballinamoney,***
Bailieboro,
Co. Cavan.

Telephone Nº: **042-9665661** *Fax Nº:* **042-9665961**

e-mail : ***kiernanfarms@eircom.nert***

* This should be the name of the applicant on the date the Application is lodged with the Agency. This should be the name of the legal entity (which can be a limited company or a sole trader). A trading/business name is not acceptable.

Address for correspondence : ***Mr. Paraic Fay B.Agr.Sc.***
(if different from above)
C/o C.L.W. Environmental Planners Ltd.,
The Mews,
23 Farnham St.,
Cavan.

e-mail : paraic@clw.ie

Address of Body Corporate :
(if applicable)

e-mail :

The applicant must also supply the following:
(a) Certified Copy of Certificate of Incorporation
(b) Company's Number in Company's Registration Office and
(c) Particulars of Registered Office of the Company

CRO No.	

Name and address of the proprietor(s) of the Land on which the Activity is situated (if different from applicant named above).

Proprietor's Name: Skeagh Farms

Address: Ballinamoney,

Bailieboro,

Co. Cavan.

Name and address of the owner(s) of the building and ancillary plant in which the activity is situated (if different from applicant named above).

Name: Skeagh Farms

Address: Ballinamoney,

Bailieboro,

Co. Cavan.

Primary Contact details for enforcement purposes where licence is granted. PLEASE NOTE THIS CONTACT CANNOT BE A CONSULTANT. ALSO IT MUST NOT BE A PERSON WHO IS ALREADY A REGISTERED EDEN CONTACT FOR ANY OTHER LICENCE ISSUED BY THE AGENCY.

Name:	Mr. John Kiernan
Position in organisation:	Owner
Address:	Ballinamoney,
	Bailieboro,
	Co. Cavan.
Tel:	042-9665661
Fax:	042-9665961
e-mail:	kiernanfarms@eircom.net

B.2. Location of Activity

Name: ***John Kiernan***

Address: ***Tullynaskeagh,***

Bailieboro,

Co. Cavan.

Telephone Nº: **042-9665661** *Fax Nº:* **042-9665961**

***Contact Name*:** **Mr. Paraic Fay**
C/o CLW Environmental Planners Ltd.

***Position*:** **Agri/Environmental Consultant**

e-mail : paraic@clw.ie

National Grid Reference (12 digit-6E,6N) ***267910, 292626***

Location maps (no larger than A3) with grid references should be enclosed in **Attachment Nº B.2.**

B.3. Class of Activity

Identify the relevant activities in the First Schedule to the EPA Act 1992, as amended, to which the activity relates:

Class	Description
Activity Class 6.2(a),	" The rearing of pigs in an installation, where the capacity exceeds 750 places for sows,

B.3B Application Fee

State each class of activity (per the First Schedule of the EPA Act) for which a fee is being submitted. Application fees are set out in the following regulations:

- EPA (Licensing Fees) Regulations 1994, for all First Schedule activities except classes 11.2 to 11.7; and
- EPA (Licensing Fees) Regulations 2013, for First Schedule activity classes 11.2 to 11.7.

First Schedule Activity	Fee (in €)
6.2	€6,983
Total fee paid	€6,983

* add rows to the table as necessary

B.4 Industrial Emissions Directive

Specify which category/categories of industrial activity referred to in Annex I of the Industrial Emissions Directive (2010/75/EU) is/are to be carried out at the installation.

Category	Description
6.6	**Intensive rearing of poultry or pigs:** (c) with more than 750 places for sows.

B.5. Employees/ Capital Cost

Give-

(i) In the case of an established activity, the number of employees and other persons, working or engaged in connection with the activity on the date after which a licence is required and during normal levels of operation, or

(ii) In any other case, the gross capital cost of the activity to which the application relates.

Number of Employees (existing facilities) :**5**

Gross Capital Cost (new proposals) €_____

B.6. Relevant Planning Authority and/or Public Authority

Give the name of the planning authority in whose functional area the activity is or will be carried out.

Name:	*Cavan County Council*
Address:	Farnham St.
	Cavan
	Co. Cavan
Tel:	049-4378300
Fax:	

Considering the entire site to which the activity relates, has planning permission ever been required for the site? (Tick No or Yes in the table)

No		See Section **B.6(a)** below **NOTE:** For **Agency initiated reviews**, you can disregard the instructions in B.6(a) and progress to Section B.7.
Yes	☑	See **all** of Sections **B.6(b) to (f)** below. Please note that **all** structures comprising or for the purposes of the activity must be accounted for in the tables in sections below B.6(c) to B.6(f) below. **NOTE:** For **Agency initiated reviews**, you only need to complete the tables in Sections B.6(c), B.6(d) and B.6(e) below. You **DO NOT** need to submit an EIS or the letters on confirmation referred to below.

If this is a licence review application, was planning permission required for the changes proposed as part of this review application? (Tick No or Yes in the table)

No		Provide confirmation in writing from the planning authority or An Bord Pleanála that this is the case.	
Yes	☑	Planning Ref No:	17/72

~~**B.6 (a) Where planning has never been required**~~

~~Where the activity which is the subject of this licence/review application has never required a grant of planning permission previously, **Attachment N° B.6** must include a confirmation in writing from the planning authority or An Bord Pleanála, as the case may be, that the activity does not involve development or that the activity constitutes development but is exempted development. The letter of confirmation from the planning authority and/or An Bord Pleanála, as the case may be, must also confirm whether EIA has been carried out by the planning authority or An Bord Pleanála for any part of the site of the activity.~~

B.6 (b) Environmental Impact Statements

In the following table, indicate the option which applies to your application and provide the information requested accordingly.

Option	Applicable? (Yes/No)
For new licence applications OR review applications where the last licence (excluding reviews initiated by the EPA) was determined **before** 30th September 2012 • Where planning permission has been/is required for the site of the activity, **you must submit the most recent EIS associated with a planning application or planning permission for the site of the activity.** • Where planning is granted, the planning decision and planners report associated with the EIS should also be submitted.	☑
For review applications where the last licence (excluding reviews initiated by the EPA) was determined **after** 30th September 2012 • If this is an application for a licence review, and the last licence review (not including reviews initiated by the EPA) **was determined after 30th September 2012**, you are only required to submit the most recent EIS which has arisen through the planning process **since the last licence review**. The planning decision and planners report associated with the EIS should also be submitted.	**N/A**
Where an EIS has never been required at planning stage Where an EIS has never been required for any planning permission then you must provide confirmation in writing from the planning authority or An Bord Pleanála that an environmental impact assessment was not required by or under the Planning and Development Act 2000, as amended for **each** of the planning permissions associated with the site of the activity. This information should be included in **Attachment Nº B.6**.	**N/A**

B.6 (c) Planning under Consideration

Where there is currently a planning application under consideration with a Planning Authority or An Bord Pleanala for any aspect of the site to which this licence application relates:

1. Provide confirmation in writing from a planning authority or An Bord Pleanála, as the case may be, that an application for permission comprising or for the purposes of the activity to which the application for a licence relates is currently under consideration.
2. Complete the Planning under Consideration Table below, indicating whether an Environmental Impact Statement (EIS) is required by the Planning Authority/An Bord Pleanala as part of that application.
3. Where an EIS is not required by the Planning Authority/An Bord Pleanala for a planning application, you must provide confirmation in writing from the planning authority or An Bord Pleanála that an environmental impact assessment is not required by or under the Planning and Development Act 2000 in **each** case. This information should be included in **Attachment Nº B.6**.

Planning under Consideration Table:

Planning or Appeal Reference Number	Planning Authority (PA)/An Bord Pleanala (ABP)	Date of application	Brief description	Letter of confirmation from PA/ABP that application is under consideration?	EIS required with Planning Application? (Yes/No)	If "no", Letter of confirmation from PA/ABP that EIA is not required?
N/A						

Note: Please be advised that in accordance with Section 87(1D)(d) of the EPA Act 1992, as amended, a Proposed Determination **cannot** issue on a licence application while a planning application (for a development comprising or for the purposes of an activity to which the licence application relates and for which EIA is required) is under consideration with a planning authority or An Bord Pleanala.

B.6 (d) Planning Granted

Where planning permissions have been granted for the site of the activity:

1. List all of the permissions relating to the site in the Planning Granted Table below and indicate whether an EIS was required by the Planning Authority/An Bord Pleanala as part of that permission. Submit the planners report and final decision for each permission granted.
2. Where an EIS was not required by the Planning Authority/An Bord Pleanala for a planning permission, you must provide confirmation in writing from the planning authority or An Bord Pleanála that an environmental impact assessment was not required by or under the Planning and Development Act 2000 for **each** planning permission granted. This information should be included in **Attachment № B.6**.

Planning Granted Table:

Planning or Appeal Reference Number	Planning Authority/ An Bord Pleanala	Date of Planning Decision (Final)	Brief description	EIS required with Planning Application? (Yes/No)	If "no", Letter of confirmation from planning authority/An Bord Pleanala that EIA was not required?
17/72	Cavan Co. Co.	13/11/2017	to demolish c. 7 No. existing pig houses and ancillary structures and construct 3 no. replacement pig houses together with all ancillary structures and all associated site works (An Environmental Impact Statement (E.I.S.) relating to this proposed development will be submitted with this planning application) and to retain 1 no. Pig House (constructed in lieu of 1 No. pig house approved under planning Ref. 10/44), and 1 No. ancillary store, together with all ancillary structures and all associated site works, on the site of existing pig farm.	Yes	N/a

Note: Please be advised that where planning permission has been granted or a planning application is under consideration, and in accordance with Section 87(1C) of the EPA Act 1992, as amended, the Agency shall ***refuse to consider*** the licence application if the applicant does not comply with the requirements of Section 87(1B) of the EPA Act.

B.6 (e) Exempted Developments and structures/modifications not regarded as "development".

Where any structure or modification on site has been determined by the planning authority or An Bord Pleanála to be "exempted development" or is considered not to be development, provide confirmation in writing from the relevant authority. List all of the structures/modifications considered to be "exempted development" or to not involve development in the table below.

Exempted Development/No Development:

Planning Authority/ An Bord Pleanala	Date of letter from PA/ABP confirming their determination	Brief description of structure/modification	Tick if exempted development	Tick if considered not to be development
N/A				

B.6 (f) Other Consents Granted

List all consents (**other than planning permissions**) issued by any relevant competent authority (other than the planning authority/An Bord Pleanala) for the development relating to this application which required EIA to be carried out as part of the consent process e.g. a foreshore licence. These EISs are **not** required to be submitted with the licence application at this point.

Consent Reference Number	Competent Authority	Date of Grant of Consent	Brief description	EIS required with Consent Application?
N/A				

Appropriate Assessment

Where applicable, provide a copy of any screening for Appropriate Assessment report and Natura Impact Statement (NIS) that was prepared for consideration by any planning/public authority as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) in relation to the activity. Where a determination that an Appropriate Assessment is required has been made by any planning/public authority in relation to the activity, a copy of that determination and any screening report and Natura Impact Statement (NIS), and any supplemental information furnished in relation to any such report or statement, which has been provided to the planning/public authority for the purposes of the Appropriate Assessment shall be included in **Attachment № B.6.**

Please refer to E.I.S. accompanying this application for a copy of the Appropriate Assessment Screening

Licences and permits

For existing activities, **Attachment № B.6** should also contain a table of references to all licences and permits past and presently in force at the time of submission of this application.

Licence/Permit reference number	Brief Description	Date granted	Currently in force? (Yes/No)
P0640-01	EPA Licence	02/12/2003	Yes

B.7. Relevant Regional Health Service Executive

The applicant should indicate the Regional Health Service Executive where the installation is or will be located.

Name: ***HSE Cavan/Monaghan***
Address: ***Leo Kinsella Area Manager***
Cavan/Monaghan,
Rooskey,
Monaghan,
Co. Monaghan

Telephone №: ***047 30483***

B.8. Site Notice, Newspaper Advertisement and Planning Authority Notice.

Give the position of the site notice in accordance with Regulation 6 of the Regulations.

Attachment № B.8 should contain a copy of the text of the site notice, a map (no larger than A3) showing its location on site and a copy of the newspaper advertisement . A copy of the notice given to the Planning Authority should also be included.

B.9 Review of a licence

State the grounds on which an application for a review of a licence is being made and give the reference number to the relevant licence in the register.

Provide, where appropriate, a copy of the Office of Environmental Enforcement (OEE) correspondence that indicates that the reason for the review cannot be accommodated within the scope of the existing licence.

Include results of emission monitoring and other data, that enables a comparison of the operation of the installation with the best available techniques described in the applicable BAT conclusions and with the emission levels associated with the best available techniques in accordance with Section 86A(9) of the Act of 1992 as amended.

Where the OEE has agreed any variations or adjustments to the conditions or schedules of the existing licence, the licensee must provide details of these agreed variations and adjustments to the existing licence conditions. An updated, scaled drawing of the site layout (no larger than A3) providing visual information on such adjustments or variations where appropriate should be included.

In the case of once-off assessments/ reports required under conditions/ schedules of the existing licence the licensee must provide details of those assessments/ reports that have been completed and agreed with the OEE or as otherwise agreed.

Attachment № B.9 shall include the schedule of variations and/or adjustments together with the updated drawing.

Condition/ Schedule No.	Existing Condition	OEE Agreement Reference	Description

~~Supporting information should be included in **Attachment № B.9**~~

Review of licence required to facilitate proposed variation in stock numbers.

No variations to existing licence agreed with OEE.

SECTION C MANAGEMENT OF THE INSTALLATION

C.1 Site Management & Control

Details should be provided on the management structures for the activity and any quality control systems.

Applicant is an existing pig farmer with many years experience.

Fit and Proper Person.

The EPA Act 1992, as amended, (Section 83(5)(xi)) specifies that the Agency shall not grant a licence unless it is satisfied that the applicant or licensee or transferee as the case may be is a fit and proper person. Section 84(4) of the Act specifies the information required to enable a determination to be made by the Agency.

- Indicate whether the applicant or other relevant person has been convicted under the EPA Act 1992, as amended, the Waste Management Act 1996, as amended, the Local Government (Water pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.

The applicant has no previous convictions.

- Provide details of the applicant's technical knowledge and/or qualifications, along with that of other relevant employees.

Applicant is an existing pig farmer with many years experience.

- Provide information to show that the person is likely to be in a position to meet any financial commitments or liabilities that may have been or will be entered into or incurred in carrying on the activity to which the application relates or in consequence of ceasing to carry out that activity or in consequence of ceasing that activity.

The existing development is to be operated in line with E.P.A., Cavan Co. Co. and Department of Agriculture Food and The Marine requirements and specifications and will result in limited potential for liability. The Licensee will maintain adequate public Liability insurance in relation to the farm to cover any unforeseen accidents etc.

A signed **Declaration** is required indicating whether the applicant or other relevant person has current or past bankruptcy or other insolvency proceedings against them or has entered into an arrangement with its creditors or suspended its business activities.

This information should form **Attachment № C**.

SECTION D INFRASTRUCTURE & OPERATION

D.1. Operational Information Requirements

Describe the plant, methods, processes, abatement, recovery and treatment systems, and operating procedures for the activity, and include a copy of such plans, drawings or maps, (site plans and location maps, process flow diagrams – no larger than A3), and such other particulars, reports and supporting documentation as are necessary to describe all aspects of the activity. Provide a description of the housing and ventilation system employed on-site.

D.2. Development and Operational History of the Site

A development and operational history of the site should be included here.

Attachment Nº D should contain a list of all unit operations (process) to be carried out, including a flow diagrams of each with any relevant additional information.

Introduction

The objective of the activities carried out at this facility is the breeding, management and the rearing of pigs, specifically bred for efficient pig meat production, from birth until they are removed off site to a spealised rearing farm at c. 18Kg. This must be carried out as efficiently and economically as possible. In pig production, this is achieved by the efficient use of inputs (especially feed) and the best housing and management to produce the maximum output of lean carcass meat to the processing factory. To achieve this objective requires:

1. ***Have efficient food conversion ratio (feed to lean meat conversion)***
2. ***Have fast growth rate.***
3. ***Operate according to current Environmental Legislation.***
4. ***High productivity in the breeding herd and maximum performance of grower pigs.***

To maximise output the following are essential elements for the success of the enterprise;

1. ***Genetic potential of the stock***
2. ***Minimal disease status***
3. ***Good quality buildings and environments.***
4. ***High quality feeds.***
5. ***Good management and stockmanship.***

Size of Development

The layout of this farm is shown on the layout plans contained in Attachment B2. As per the planning permission recently granted the pig farm will be subject to significant re-development and reconstruction.

The activity on the site is/will be the breeding and rearing of pigs in a licensable installation/facility. The facility is located in a rural area. The installation will comprise animal houses, ancillary structures and equipment necessary for the accommodation, management and husbandry of the animals, and the administration of the enterprise.

The structures and equipment on the site will be designed and installed for the purpose of rearing pigs for sale off the site. Planning permission was granted for alteration from a c. 904 sow semi-integrated pig farm to a c. 1,350 specialised breeding unit. Notwithstanding that there is an alteration in stock numbers, there is no net intensification of activities on the farm, and there will be a reduction in overall stock numbers.

While production on the site will be continuous, the presence of operative staff and deliveries / collections are normally between 08.00 and 18.00 hours. Ventilation and feeding operations are continuous on site.

The principal inputs are feed which is supplied in compound form or as wheat, barley, soya etc., water, veterinary medicines and a modest amount of energy (electricity and oil). Water for stock and for washing is acquired from an on farm well. On-Site water storage tanks will allow for a day's supply in the event of shortages. The outputs are pigs (primary product) and animal manure (secondary product). The estimated maximum annual manure production figure comes to 11,337 m^3 for a 1,350 sow (excluding served gilts) breeding unit rearing pigs to c. 18 kg's.

As detailed in the E.I.S. as submitted with planning permission application "Upon completion of the proposed development, pig production at any one time will comprise of c. 1,350 sows (i.e. a female pig after its first farrowing) fully integrated. Stock numbers on site may vary +/- 10% on occasion."

Some animals die of natural causes before maturity. Dead animal carcasses are placed in a closed skip on the farm before being transported to a rendering plant, currently College Proteins. Flies, rats and mice are carriers of some of the infections that are detrimental to pig health. In addition, rats and mice can cause considerable damage to insulation materials and accessible woodwork, thereby reducing buildings thermal efficiencies and longevity. There is a programme in place for the control of vermin and pests in the site. There is no significant pollution caused by the activity. It is policy to minimise waste accumulation and to recycle as much as possible, but the recyclable volume is small.

Storm water from roofs and paved yards is not permitted to flow over soiled areas and is discharged via land drainage to the adjoining watercourses (i.e. tributaries of the Moynalty River. There is no process effluent discharge from the site. Normal respiration gasses and odours emit from the houses and from manure, particularly during movement of the manure. Odours emitted from the site will not interfere with amenities outside the site boundary.

The structures and equipment on the site will be modern and well maintained. The practices and technology used in the site for the rearing of stock and for the

control of emissions from the installation are the best available that the enterprise can afford.

Pig manure is a rich source of plant nutrients and is a valuable fertiliser for farmland. The organic manure from this site will be utilised as a fertiliser source in accordance with the regulations set out in Statutory Instruments S.I. No 31 of 2014 for the purposes of efficient grass/crop production. All of the required information to be maintained as outlined in S.I 31 of 2014 will be kept by the licence applicant. The licence applicant/contractor will also provide all required details to the farmer receiving the organic fertiliser.

If activity on the site were to cease, arrangements would be made so that the cessation would in so far as possible be integrated with the normal production cycle (i.e. sows would not be served and after weaning would be culled, all served sows would be allowed to farrow and the pigs reared to be sold off as weaners. The houses would be emptied of all stock after the last group of weaner pigs are removed. At this stage all organic manure would be removed as per normal practice. It would be organised so that the minimum amount of inputs are present on site. All remaining inputs will be returned to the supplier where possible; otherwise all materials will be disposed of from the site in accordance with licence requirements.

Minimal Disease Status

Each age group of pigs have a different level of immunity and even in high health status herds it is important not to mix pigs of different age groups. Piglets are born in the farrowing house and remain suckling the sow for a minimum of 28 days. All pigs are moved in an All-in All-out basis throughout their growth cycle. All hygiene and bio- security measures are taken to maintain the pigs health status in so far as possible.

To minimise the risk of personnel bringing infection into the pig farm all visitors must take the necessary disinfection procedures, however only essential personnel such as veterinarians and servicemen are allowed regular access. All visitors must sign a register.

The final part of maintaining health within the unit is the necessity to fully clean out the houses after each group of pigs is removed. This avoids the build up of bacteria and viruses which challenge the incoming stock and which may affect their growth efficiency. On this farm special emphasis has been laid on providing a system that ensures adequate time for cleaning, disinfection and resting between successive groups in the farrowing and grower houses.

The cleaning of the houses is a process, whereby;

1. ***The rooms are soaked so as to minimise water use thereafter.***

2. ***The house is washed down and disinfected. Soiled water is collected in the manure storage tank underneath the houses.***

3. ***The houses are left to dry out before the next group of pigs enters.***

SECTION E EMISSIONS

E.1. Emissions to Atmosphere

Fugitive emissions.

Give summary details of fugitive and potential emissions (including Dust and Odour). Predict odour emissions from the activity and assess their impact off-site.

Full details and any supporting information should form **Attachment № E.1.**

Process emissions to the atmosphere from a conventional pig farm include the expelling of warm air from the ventilation system in the buildings and odour and gas volatilisation from the organic manure. Increased emissions may at times be associated with the loading of pigs and/or the loading of pig manure.

Control Measures to Minimise and Abate Odour on site at present

Emissions from this site are currently/to be minimised using the following recommendations;

- ***Manure management kept to a high standard.***
- ***Stocking density maintained at design level.***
- ***Quality ventilation due to computerised/automated control.***
- ***Quality house design with state of the art insulation standards.***
- ***Minimisation of carcasses by keeping the herd health to the highest possible standard. As a result of this, mortality rates will be kept to a minimum. Any dead pigs will be stored in covered leak proof containers awaiting collection by College Proteins.***
- ***Water and feed systems will be maintained in optimum condition and operation so as to minimise water and feed wastage.***

Proposed Measures to further Minimise and Abate Odour on site

As a result of the comprehensive management and other practices currently carried out on site, which is evidenced by the fact that in all the years of operation of this facility, the applicant has received no complaints regarding odour emanating from this site, no additional measures are deemed to be required, at this time. It will be ensured by the applicant that all current, management practices are continued and improved upon where possible so as to attempt to minimise any potential odour emissions.

E.2 Emissions to Surface Waters

Tables E.2(i) must be completed.

A summary list of the emission points, together with maps, drawings (no larger than A3) and supporting documentation should be included as **Attachment № E.2**.

All surface water runoff and storm water drains discharging to surface water bodies must be included. A National Grid References (10 digit, 5E, 5N) must be given for all discharge points. The identity and type of receiving water (river, ditch, estuary, lake, etc.) must be stated.

Clean storm water will discharge via land drainage to the local watercourse. Proposed surface water drainage is as per the plans and drawings submitted.

All soiled surface water is diverted to the manure storage tanks.

E.3. Emissions to Ground

E.3.A. Storm water emissions to ground.

Table E.3(i) must be completed.

All surface water runoff and storm water drains discharging to ground must be included. A National Grid Reference (10 digit, 5E, 5N) must be given for all discharge points. The groundwater aquifer classification and vulnerability assessment must be included in Table E.3(i).

Clean storm water from roofs will discharge to ground / surface waters.

E.3.B Landspreading

The applicant should supply details of the nature and quality of all substances (agricultural and non-agricultural waste) to be landspread (slurry, effluent, ash, sludges etc) as well as the proposed application rates, periods of application and mode of application (e.g., pipe discharge, tanker).

Full details and any supporting information should form **Attachment № E.3.**

Pig manure generated at this facility will be distributed to local farmers who require it, for use in accordance with the requirements set out in S.I. 31 of 2014, and all relevant information will be maintained on site for inspection at all reasonable times. Pig manure is not considered to be an agricultural/non-agricultural waste.

E.3.C Septic tanks/percolation area etc.

Summary details of all direct emissions onto or into the ground must be presented including percolation areas, septic tanks etc.

Full details as well as a summary list of the emission points or areas together with maps, drawings and supporting documentation should be included as **Attachment Nº E.3**. Details of effluent treatment/abatement systems should also be included, together with schematics as appropriate.

There in an On-Site WWTP as per the site plan.

E.4 Noise Emissions

Give particulars of the source, location, nature, level, and the period or periods during which the noise emissions are made or are to be made.

Supporting information should form **Attachment Nº E.4**

There have been no complaints of noise emissions for this facility to date. The activities proposed on site do not generate noise levels that would be expected to adversely impact at the site boundary, similar to most pig farms in the country.

This facility will not result in audible noise outside of acceptable limits at or beyond the site boundary.

For emissions outside the EPA Noise Guidance Note limit, see the Agency's *Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)* (2012) (available on www.epa.ie), a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within the limits as set out in the guidance note.

SECTION F CONTROL & MONITORING

Describe the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation.

Describe the arrangements for abnormal operating conditions including start-up, leaks, malfunctions or momentary stoppages.

Attachment Nº F.1 should contain any supporting information.

F.1: EMISSIONS MONITORING AND SAMPLING POINTS

Identify monitoring and sampling points and outline proposals for monitoring emissions.
Table F.1(i) should be completed (where relevant) for air emissions, for emissions to surface waters, for emissions to sewers, for emissions to ground, and for waste emissions.

Include details of monitoring/sampling locations and methods.

Attachment Nº F.1 should contain any supporting information.

The main emissions from this activity may include storm water, noise and odour.

As previously stated it is not anticipated that storm water, noise and odour emissions from this farm will cause any significant concern. Noise and odour emissions from this farm will be minimised by implementing the comprehensive management practices currently employed on site. Most important of these are;

- ***Ensuring houses and associated feeding and ventilation systems are well maintained.***
- ***Ensuring houses are stocked at the correct rate.***
- ***Ensuring that the licensable site is kept well maintained and clean.***
- ***Ensuring that all houses are properly cleaned between each group.***

All soiled water will be collected separately from storm water and dealt with as previously outlined.

The storm water points are to be inspected on a weekly basis and monitored as required, but not more than quarterly.

SECTION G RESOURCE USE AND ENERGY EFFICIENCY

G.1 Give a list of the raw and ancillary materials, substances, preparations, medicines, disinfectants, fuels and energy which will be produced by or utilised in the activity.

The list(s) given should be very comprehensive, all materials used, fuels, intermediates, laboratory chemicals and product should be included. The listings should include quantities typically stored at the site and annual throughput. Particular attention should be paid to feed materials used at the site. Supporting evidence of the nutritional composition of these feeds should be included.

Provide copies of European MSDS Sheets for all chemicals used on-site.

Feed and Water

There are a number of different feed types used on this farm depending on the stage of production. All feeds consist of cereals, soya, oil and other ingredients and are supplied to the farm in compound form. A wet feed system is to be used in the dry sow and farrowing accommodation with dry feeders and/or a wet feeding system used in the grower areas, with a separate water source available to the pigs. Diets/rations are formulated to exactly match the pigs requirements for protein, energy, minerals and vitamins at the various ages and to minimise nutrient excretion, wastage and costs, while at the same time maximising performance.

Feed is to be stored in specialised feed storage bins/silos.

Disinfectant/Detergents

These are used as part of the hygiene routines on the farm and are stored in designated areas on the farm.

G.2 Energy Efficiency

A description of the energy used in or generated by the activity must be provided. Outline the measures taken to ensure that energy is used efficiently having regard to the relevant decision on BAT conclusions and/or BAT guidance and where appropriate, an energy audit with reference to the EPA Guidance document on Energy Audits should be carried out.

Supporting information should be given in **Attachment № G**

Electricity is used for the operation of all of the automated process on the farm such as feeding, lighting ventilation etc. Electricity used for heating where required. In order to ensure the future viability of this facility it is imperative that all costs are minimised. All equipment therefore is serviced regularly where relevant, and a close eye is kept on energy usage trends. Buildings are well insulated and ventilated to minimise energy usage.

A back-up generator will be put in place on-site in the event of disruption to the electricity supply.

SECTION H MATERIALS HANDLING

H.1 Raw Materials, Intermediates and Product Handling

Details of the location, storage conditions (fridge, locked cabinet etc.), segregation system, transport of material within the site, solid, liquid or sludge transported by pipe, vehicle or conveyor any analysis required where relevant should be supplied in **Attachment N°·H.1** including references to the most recent testing of bunded structures, tanks and pipelines.

Raw materials

The raw materials used in the pig farm are, pig feed, medication, electricity, and water.

All feeds are stored in specialised feed storage bins/silos/tanks. The feed storage silos are identified and/or marked so as to show the feed type contained therein.

The veterinary medicine usage on site is minimised by restricting access to the site by unnecessary personnel, and maintaining the site as, a minimal disease unit.

The amount of energy (electricity) used will be minimised by high insulation standards, regular maintenance and minimal wastage. Energy usage will also vary depending on outside weather conditions and the time of the year.

Products

The two products produced from this activity are:

- ***Pigs (for transfer to a specialised rearing farm(s))***
- ***Organic fertiliser (to be used as an organic fertiliser in accordance with S.I. 31 of 2014).***

The main raw materials, feed and water, are used to produce the main products (1) pig meat (liveweight gain) and (2) organic fertiliser. All remaining raw materials such as energy, medication, etc. are required for the management and husbandry of the unit. The stock from this facility are transported to a specialised rearing farm(s). Pig manure is distributed to/by local farmers for use on their own land in accordance with the requirements as set out in Statutory Instruments S.I. 31 of 2014. The average nutrient content of the pig manure is as per table 7 of S.I. 31 of 2014 is 4.2 Kgs N/m^3 and 0.8 Kgs P/m^3.

H.2 Waste Prevention

Describe in Attachment Nº H.2 the arrangements for the prevention of waste in accordance with Part III of the Waste Management Acts 1996 to 2013. Describe what measures will be taken to prevent the generation of waste to the extent possible. State whether the installation has participated in any projects under the National Waste Prevention Programme.

Waste Prevention:

- ***During Operation:*** Given the nature of the proposed development there will be minimal waste streams. The wastes that could be expected to arise are;

  - ***Dead Pigs –*** will be minimised by maintaining a high health status and maintaining stocking rates in line with animal welfare requirements.

  - ***Veterinary Waste -*** will be minimised by maintaining a high health status and maintaining stocking rates in line with animal welfare requirements.

  - ***General Waste -*** Will be recycled where possible.

  - ***Fluorescent tubes etc.*** will be handled in accordance with E.P.A. Licence requirements.

H.3 Describe the arrangements for the recovery or disposal of solid and liquid wastes generated by the installation.

Applicants should ensure that information is provided for each waste generated at the installation under each of the following headings:

(a) Description & nature of waste
(b) Source
(c) European Waste Catalogue Code (Commission Decision 2000/532/EC, as amended)
(d) Animal by-product category per EC Reg. 1069/2009 where relevant
(e) Amount in tonnes per month
(f) Location and method of disposal or recovery (on-site or off-site)

The following information should also be provided where appropriate:
(g) Analysis of the waste (include test methods and Q.C.)
(h) Its location of storage and the manner by which the integrity/impermeability of storage areas is maintained
(i) Period or periods of generation of the waste

Where any waste would be classified as Hazardous Waste as defined in the Waste Management Act, 1996, as amended, this should be made clear in the information provided.

Summary Tables H.3(i) should also be completed, as appropriate, for each waste. The licence/permit register number of the waste collection agent or disposal/recovery operator should be supplied as well as the expiry date of the relevant permits

Supporting information should form **Attachment № H.**

H.3 Describe the arrangements for the recovery or disposal of solid and liquid wastes generated by the installation.

Applicants should ensure that information is provided for each waste generated at the installation under each of the following headings:

(a) Name	*Domestic Refuse*
(b) Description & nature of waste	*Packaging/Disposable Clothing*
(c) Source	*Work areas*
(d) Where stored and integrity/ impermeability of storage areas	Covered *Bin on site*
(e) Amount (m^3) and tonnage	*<2 Tonne (Approx)*
(f) Period or Periods of generation	*continuously*
(g) Analysis (include test methods and Q.C.)	*N/A*
(h) European Waste Catalogue Code	*20 03 01*

This waste is to be stored in a covered bin on site and removed regularly.

H.3 Describe the arrangements for the recovery or disposal of solid and liquid wastes generated by the installation.

Applicants should ensure that information is provided for each waste generated at the installation under each of the following headings:

(a) Name
(b) Description & nature of waste
(c) Source
(d) Where stored and integrity/ impermeability of storage areas

(e) Amount (m^3) and tonnage
(f) Period or Periods of generation
(g) Analysis (include test methods and Q.C.)
(h) European Waste Catalogue Code

This waste is to be stored in designated storage bins and removed regularly.

H.3 Describe the arrangements for the recovery or disposal of solid and liquid wastes generated by the installation.

Applicants should ensure that information is provided for each waste generated at the installation under each of the following headings:

(a) Name	*Animal tissue waste*
(b) Description & nature of waste	*Dead Pigs*
(c) Source	*Pig Houses*
(d) Where stored and integrity/ impermeability of storage areas:	*Covered Skip/bin on site*
(e) Amount (m^3) and tonnage *(approx)*	***c. 3-4% mortality***
(f) Period or Periods of generation	*continuously*
(g) Analysis (include test methods and Q.C.)	*N/A*
(h) European Waste Catalogue Code	*02 01 02*
(i) Animal By-Product Category	Category 2

Carcasses are to be collected regularly from this farm and transported to a licensed rendering plant, such as College Proteins.

H.3 Describe the arrangements for the recovery or disposal of solid and liquid wastes generated by the installation.

Applicants should ensure that information is provided for each waste generated at the installation under each of the following headings:

For each waste material, give full particulars of ;

(a) Name	*Fluorescent lighting tubes*
(b) Description & nature of waste	*Used fluorescent tubes*
(c) Source	*lights throughout unit*
(d) Where stored and integrity/impermeability of storage areas: *Designated container*	
(e) Amount (m^3) and tonnage	25 ***Tubes*** *approx per annum*
(f) Period or Periods of generation	*Continuously*
(g) Analysis (include test methods and Q.C.)	*N/A*
(h) European Waste Catalogue Code	*20 01 21** ***Hazardous***

Return to supplier and/or WEEE registered supplier.

H.3 Describe the arrangements for the recovery or disposal of solid and liquid wastes generated by the installation.

Applicants should ensure that information is provided for each waste generated at the installation under each of the following headings:

For each waste material, give full particulars of;

(a) Name	*Sharpes*
(b) Description & nature of waste	*Veterinary Waste*
(c) Source	*Animal Treattment*
(d) Where stored and integrity/impermeability of storage areas:	*Designated container*
(e) Amount (m^3) and tonnage	25 ***Tubes*** *approx per annum*
(f) Period or Periods of generation	*Continuously*
(g) Analysis (include test methods and Q.C.)	*N/A*
(h) European Waste Catalogue Code	*18 02 02** ***Hazardous***

Removed off-site by specialist contractor and/or returned to supplier.

SECTION I EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY

Describe the conditions of the site of the installation

Provide an assessment of the effects of any emissions on the environment, including on an environmental medium other than that into which the emissions are made.

Describe, where appropriate, measures for minimising pollution over long distances or in the territory of other states.

I.1.Assessment of atmospheric emissions

Give summary details and an assessment of the impacts of any existing or proposed air emissions i.e. dust and odour, on the environment, including environmental media other than those into which the emissions are to be made. Give details of all **odour** control measures used to minimise and abate odour.

Identify all residential dwelling houses and sensitive locations within 1 km and sensitive areas or areas of special interest within 5km of the activity and predict the extent of odour emissions from the activity.

Attachment Nº I.1 should also contain full details of any dispersion modelling of atmospheric emissions from the activity, where required.

Due to the nature of site activities at this farm, odour is not an issue at or beyond the site boundary.

A site location map is included, as attachment No. B2.

I.2 Assessment of impact of ground emissions

Baseline Report
In the case of an activity that involves the use, production or release of relevant hazardous substances (as defined in section 3 of the EPA Act 1992 as amended), and having regard to the possibility of soil and groundwater contamination at the site of the installation, provide a baseline report in accordance with section 86B of the EPA Act 1992 as amended. Has the Agency indicated in pre-application discussions that a baseline report is required?

A baseline report shall contain the information necessary to determine the state of contamination of soil and groundwater at the time the report is drawn up in order that a quantified comparison may be made to the state of the site upon the permanent cessation of the industrial emissions directive activity.

Guidance in relation to baseline reports is available on the EPA website at www.epa.ie.

The Baseline Report should be included in **Attachment I.2** and clearly labelled as such.

Please refer to Attachment No. I.2 for the completed Baseline report.

Describe the existing groundwater quality at the site of the activity. Tables I.2(i) should be completed. Assess the impact due to contaminated discharges from otherwise clean discharges.

In the case of an activity that involves the use, production or release of relevant hazardous substances (as defined in section 3 of the EPA Act 1992 as amended), provide a baseline report in accordance with section 86B of the EPA Act 1992 as amended.

Landspreading of Agricultural Manures

Tables I.2(ii) and I.2.(iii) should be complete where applicable. Further information is available in the Application Guidance Document.

I.3 Ground and/or groundwater contamination

Summary details of known ground and/or groundwater contamination, historical or current, on or under the site must be given.

Full details including all relevant investigative studies, assessments, or reports, monitoring results, location and design of monitoring installations, plans, drawings, documentation, including containment engineering, remedial works, and any other supporting information should be included in **Attachment № I.3**.

There has been no known historical contamination of groundwater at this site. This site is currently an existing pig farm and will be maintained in a clean and proper manner.

I.4 Noise Impact.

A map (no larger than A3) of the site and surrounding area should be supplied, indicating the main sources of noise on site. Give details of the impacts of any existing or proposed noise emissions on the environment, including environmental media other than those into which the emissions are to be made.

This information should be **Attachment № I.4.**

Due to the nature of site activities at a pig farm, noise is not an issue at or beyond the site boundary.

I.5 Environmental Considerations, Main alternatives and BAT

I.5a Describe in outline the main alternatives to the proposed technology, techniques and measures which were studied having regard to the reference document on Economic and Cross-media Effects.

I.5b Identify in the table below the relevant BAT reference document(s) (BREFs) and EPA BAT guidance document(s) having regard to the activity proposed or carried out at the installation. The documents identified are considered to be applicable to intensive rearing of poultry and pigs, however, additional BREFs and BAT guidance documents may be relevant and should be identified as appropriate.

These documents are available on the European IPPC bureau website at http://eippcb.jrc.ec.europa.eu/reference/ and the EPA website http://www.epa.ie/pubs/forms/lic/industrial%20emissions/

Title of Document
Reference Document on Best Available Techniques for Intensive Rearing of Poultry and Pigs (July 2003)
Reference Document on Best Available Techniques on Emissions from Storage (July 2006)
Reference Document on Best Available Techniques for Energy Efficiency (February 2009)

1.5c In order to determine BAT for the installation, tabulate using table I.5(i) below, all of the conclusions on BAT from the Reference Document on Best Available Techniques for Intensive Rearing of Poultry and Pigs (BREF). To assist you with this, a pre-populated template document is available for download on the EPA website http://www.epa.ie/pubs/forms/lic/industrial%20emissions/ .

For each BAT, in Table I.5(i), state whether it is applicable to your installation and describe how each BAT applies or not to your installation and provide information on your compliance with the requirement.

It may be useful to first identify all the 'Not Applicable' BATs and provide your reasoning in the 'Applicability Assessment' box as to why you consider this

particular BAT is not applicable at/to your entire installation having regard to the scope/ definitions, general considerations and the information on applicability. (You may need to make reference to relevant processes/activities or individual emission points to provide a comprehensive response).

For each applicable BAT, state the status; 'Yes' or 'Will be' as appropriate, the use of each of these terms is described below. Information on compliance in the 'Applicability Assessment' box should include, where applicable, the following:

(i) Identification of the relevant process/ activity or individual emission points that the BAT requirement applies to at your installation;
(ii) Where BAT is to use one or a combination of listed techniques, specify the technique(s) implemented/proposed at your installation to achieve the BAT; and
(iii) A comment on how the requirements are being met or will be met, e.g., a description of the technology/operational controls/management proposed to meet the requirements.

Use of terms:

(a) 'Yes' – To be selected where the installation is currently compliant with this BAT requirement.

(b) 'Will be' – To be selected where a further technique is required to be installed to achieve compliance with the BAT requirement. In this case you must also state the date by which the installation will comply with the BAT Conclusion requirement.

Please note the following:

I. Refer to the EPA BAT Guidance Note(s) for any aspects of the activity not covered by the conclusions on BAT from the Reference Document on Best Available Techniques for Intensive Rearing of Poultry and Pigs or other relevant Conclusions on BAT documents.

I.5e Emerging Techniques

State whether you propose to test and use an 'emerging technique' in particular those identified in the BAT reference documents relevant to the activity:

☐ Yes ☐ No

If yes, describe your proposal and include in **Attachment N°. I.5e.**

I.5f Other relevant conclusions on BAT

Please note that other reference documents may be relevant such as:

(a) BREF on Emissions from Storage;
(b) BREF on Energy Efficiency;

Other documents that may be relevant:

(a) REF on Economic and Cross-media Effects;
(b) REF on Monitoring of Emissions from IED installations;
(c) Landfill Directive 1999/31/EC etc.

In this case tabulate using table I.5(i) below all the relevant BAT conclusions. Complete a separate table for each BREF and follow the instructions given above. To assist you with this, some pre-populated template documents are available for download on the EPA website:
http://www.epa.ie/pubs/forms/lic/industrial%20emissions/

I.5e Describe any environmental considerations which have been made with respect to the use of cleaner technologies, waste minimisation and raw material substitution.

I.5f Describe the measures proposed or in place to ensure that:

(a) The best available techniques are or will be used to prevent or eliminate or, where that is not practicable, generally reduce an emission from the activity;
(b) no significant pollution is caused;
(c) waste production is avoided in accordance with the waste hierarchy in Council Directive 98/2008/EC on waste and section 21A of the Waste Management Act 1996, as amended; where waste is produced, it is prepared for re-use, recycled or recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment (applicants should provide this information in the context of sections 29(2A), 32 and 38(5A) of the Waste Management Act 1996, as amended);
(d) energy and other resources are used efficiently;
(e) the necessary measures are taken to prevent accidents and limit their consequences;
(f) the necessary measures are taken upon definitive cessation of activities to avoid any pollution risk and return the site of operation to a satisfactory state.

Supporting information should form **Attachment Nº I.5.**

Table I.5 (i) CONCLUSIONS ON BAT (One table for each relevant BAT reference document)

Title of Document Reference Document on Best Available Techniques for Intensive Rearing of Poultry and Pigs (July 2003)			
BAT reference Number	**BAT Statement**	**Applicability Assessment**	**State technique and whether it is in place or state schedule for implementation**
e.g. BAT 1	*BAT is to implement and adhere to an environmental management system (EMS) that incorporates all of the following features:....*	*Applicable*	*Standardised EMS in place*

Title of Document *e.g* Reference Document on Best Available Techniques on Emissions from Storage (July 2006)			
5.1.1.2	*BAT is to cover open top tank by applying a floating cover, flexible or tent cover or a rigid cover*	*One open top tank on-site*	*Proposed to cover with floating cover in 2015*

Please refer to Attachment No. I.5 for the completed BAT Conclusions document.

SECTION J ACCIDENT PREVENTION & EMERGENCY RESPONSE

Describe the existing or proposed measures, including emergency procedures, to minimise the impact on the environment of an accidental emission or spillage together with the provisions for response to emergency situations outside of normal working hours, i.e. during night-time, weekends and holiday periods.

Detail the emergency arrangements and procedures for dealing with a Class A disease outbreak.

Pollution prevention measures may, inter alia, include the following information;

- Details of storage of all raw materials, products and wastes;
- Details of spill or emergency containment measures and structures;
- Details of bunding, surface treatment, collection;
- The catchment area for each spill or run-off collection system;
- Information on possible contamination of ground, groundwater, or surface water from fire water run-off in the event of a fire on-site and any provision for containment. The Agency has published a guidance document on Fire-Water Retention Facilities *(Draft Guidance Note to Industry on the Requirements for Fire-Water Retention Facilities).*
- Transport of material within the site, solid, liquid or sludge transported by pipe, vehicle or conveyor; etc.,
- Potential points of contamination/areas most at risk.

Where accidents/incidents have occurred, a full description of the incident/accident should be provided together with closure liabilities together with costs associated with the site. Also you are required to include details on waste quantities and on any contaminated land/groundwater in order to provide the Agency with information on the level of risk.

Only sites which have unusual liabilities e.g. contaminated land/groundwater, require a suitable type and level of Financial Provisions, to be agreed by the Agency. Such provision, made available by the applicant, shall include cover for Environmental Impairment, or an agreed alternative, for an amount appropriate to the risks posed by the site.

Supporting information should form **Attachment № J.**

Emergency response contact numbers will be put in place for this farm. This will setout the contact numbers of the relevant bodies to be contacted in the event of an environmental incident on site. It will also identify the emergency contact numbers of relevant contractors and specialists that may be required in the event of an emergency. It further includes contact numbers for local gardai, fire brigade and doctors.

This procedure is to be available on the facility. A register will be put in place to record all notifiable events on-site in the event of such an incident.

SECTION K REMEDIATION, DECOMMISSIONING, RESTORATION & AFTERCARE

For sites which have unusual liabilities e.g. contaminated land/groundwater, details are required of the arrangements to be made in the event of decommissioning of all or part of the operation so as to minimise the short-term and long-term effects of the operation on the environment after shut-down. Details of provisions **on such sites**, to decommission and render safe or remove all materials, waste, ground, plant or equipment contained on or in the site that may result in environmental pollution must be supplied in the form of a documented Decommissioning/Residuals Management Plan. Applicants are required to detail how this Plan, for such sites, will be financially underwritten.

Supporting information should be included as **Attachment N°. K.**

If the enterprise had to cease operation, all feeding, animal production, poultry manure production and waste production would cease also. At such time there would be normal inputs still in stock (e.g. feed in bins and medicines, etc.) and there would be stock in houses, manure in houses and also some of the wastes (dead animals, medicine containers) in their respective containers. All of those materials would then be disposed of or distributed in the same way as was normal during the normal operation of the enterprise. Saleable stock would be sold to the usual outlet. All remaining feed and medicines would be returned/sold back to the respective suppliers. The buildings, once empty of stock would be washed clean and all manure/dirty wash water would be spread on farmland, there would be no special or adverse impact on the environment.

In the unlikely event of closure being the result of a Class A disease incident, any non-saleable stock would be humanely put down and consigned either for rendering (as currently done for the dead animal tissues) or for incineration. In such a situation, all of that would be under the control of the veterinary Division of the Department of Agriculture.

SECTION L STATUTORY REQUIREMENTS

Indicate how the requirements of section 83(5)(*a*)(i) to (v) and (vii) to (xa) of the Act of 1992 shall be met, having regard, where appropriate, to any relevant specification issued by the Agency under section 5(3)(*b*) of that Act or any applicable best available techniques (BAT) conclusions adopted in accordance with Article 13(5) of the Industrial Emissions Directive and the reasons for the selection of the arrangements proposed.

Indicate whether or not the activity is carried out on, or may be carried out on, or is located such that it is liable to have an adverse effect on -

(a) a site placed on a list in accordance with Part 3 of S.I. 477 of 2011, or

(b) a site where consultation has been initiated in accordance with Article 5 of the EU Habitats Directive (92/43/EEC), or

(c) a European Site as defined in Regulation 2(1) of S.I. 477 of 2011.

Undertake a screening for Appropriate Assessment and state whether the activity, individually or in combination with other plans or projects, is likely to have a significant effect on a European Site(s), in view of best scientific knowledge and the conservation objectives of the site(s). Where it cannot be excluded, on the basis of objective scientific information, following screening for Appropriate Assessment, that an activity, either individually or in combination with other plans or projects, will have a significant effect on a European Site, provide a Natura Impact Statement, as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations (S.I. 477 of 2011). Where based on screening it is considered that an Appropriate Assessment is not required, provide a reasoned response.

Indicate whether or not the activity is liable to have an adverse effect on water quality in light of the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009).

Indicate whether any of the substances specified in the Schedule of the EPA (Licensing)(Amendment) Regulations 2004, S.I. No. 394 of 2004 are discharged by the activity to the relevant medium.

Supporting information should be included as **Attachment № L** with reference to where the information can be found in the application.

Provide the necessary information that will allow the Agency determine these requirements as **Attachment № L**.

- ***The Applicant is satisfied that the activity is not in or near and is not likely to have an adverse effect on the integrity of***

(a) a site placed on a list in accordance with Part 3 of S.I. 477 of 2011, or
(b) a site where consultation has been initiated in accordance with Article 5 of the EU Habitats Directive (92/43/EEC), or
(c) a European Site as defined in Regulation 2(1) of S.I. 477 of 2011.

- ***The activity is not likely to have an adverse effect on water quality in the vicinity of the activity. All organic fertiliser produced at this farm is to be allocated for use in accordance with S.I. 31 of 2014.***

- ***No substances specified in the Schedule of the EPA (Licensing)(Amendment) Regulations 2004, S.I. No. 394 of 2004 are discharged by the activity to the relevant medium.***

Annex 1 Tables/Attachment

Attachment No.

A1	~	**Non Technical Summary**
B2	~	**Location Map** **Site Plan Identifying the Site Boundary**
B6	~	**Copy of Grant of Planning Permission**
B8	~	**Copy of Site Notice.** **Map showing Location of Site Notice** **Copy of Newspaper Advertisement** **Copy of Notification to Local Authority**
C	~	**Bankruptcy Declaration**
I2	~	**Baseline Report**
I5	~	**BAT Conclusions Document**

Attachment No. A1

Non Technical Summary

Non-Technical Summary

An application is being made by John Kiernan Skeagh Farms, Tullynaskeagh, Bailieboro, Co. Cavan to the Environmental Protection Agency (E.P.A.) for a Licence review in respect of his pig farm at Tullynaskeagh, Bailieboro, Co. Cavan.

This enterprise is classed as:

Activity Class 6.2, " The rearing of pigs in an installation, where the capacity exceeds ***(a)*** 750 places for sows,

An Environmental Impact Statement relating to this activity, which has been submitted to Cavan County Council, in respect of this proposed development, will be submitted to the Agency as part of this application.

This pig farm will change from a c. 904 sow semi-integrated farm to operate as a 1,350 sow breeding unit unit.

The main activities carried out on-site (listed below) revolve around the care and management of the pigs:

- Breeding and rearing of pigs.
- Feeding of the pigs on-site.
- General animal husbandry practices.
- Pig movement on site
- Washing of houses between each batch, for pig health and performance reasons.
- Transport of feed to the farm
- Transport of weaners off the farm.
- Transport of pig manure off site.

Site plans and location map of this farm have been submitted as part of the documentation accompanying this application. Normal working hours on this site are from 6.00hrs to 18.00hrs.

The raw and ancillary materials used in the running of this farm will include:

- Compounded pig meal, water, injectable iron, vaccines, anthelmintics and antibiotic medication for the animals.
- Detergents, disinfectants and pest control products for pig health and hygiene reasons.
- Electricity for operating the feed system, ventilation, the power washer and fridge's for A.I. and vaccine storage.

The main secondary product produced on this farm is pig manure/organic fertiliser;

- Pig manure ~ to be incorporated into a fertiliser management system by allocation to a number of customer farmers for use as organic fertiliser on their lands, in line with the requirements of S.I. 31 of 2014. Additional customers may be supplied as and when they arise. There will be an average of c11,337 m^3 of pig manure available upon completion of all proposed developments.

The proposed technology and other techniques for minimising manure production and ensuring the proper management and use of this fertiliser resourse are outlined hereafter;.

- The pig manure produced on site is used as an organic fertiliser, which substitutes for the inorganic chemical fertiliser presently being used. The manure is recycled on to the agricultural land in line with the requirements of S.I. 31 of 2014.
- Adequate storage
- Excess customers available.
- Efficient washing routines using pre-wash detergents and high pressure power washers.

The main sources of emissions from this farm include:

- Clean surface water ~ Directed to local watercourse.
- Dirty surface water ~ Directed to manure storage tanks.
- Veterinary Waste
- Canteen Waste → Disposed of by specialist contractors.
- Animal tissue waste
- Odour and Noise

This farm has minimal adverse impact on the environment partly due to the experience gained over the years of operational management, the standard of buildings and their maintenance and the availability of a quality manure transport system, and it is expected that this will be maintained and improved upon where possible.

The proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation.

Clean Surface Water

- Separation of clean and dirty water systems. Sampling and monitoring will be carried out on clean surface water emissions, as and when required.

Dirty Surface Water

- Separation of clean and dirty water systems.
- Conditioned bunding, where required, will further ameliorate the situation.

Veterinary Waste

Comprises of:

Bottles	~	plastic and glass material
syringes	~	plastic material
needles	~	stainless steel/ aluminium material
packaging	~	plastic and paper material

Vaccines are used as the primary disease control measure on the farm. In-feed medications (antibiotics) are the second line of defence in a general disease outbreak. Individual animals are treated by antibiotic injection. This management routine under veterinary supervision reduces the volume of veterinary waste. Veterinary product use in a high health unit will be minimal.

Stored in purpose manufactured sealed containers.

Disposed of by specialist contractors.

Animal Tissue Waste

- Comprises of a variety of carcasses due to natural deaths on the farm. This material is a resource ingredient in the animal rendering industry.
- Storage is to be provided in sealed skips.
- This waste is to be kept to a minimum due to the high standard of animal husbandry practised.
- Disposed of by personnel employed by the licensed rendering facility.

Odour & Noise

- Deliveries (inward & outward) will be confined to the normal daily work routine where possible/practicable.
- There will be a strict washing routine so as to prevent the built up of odour within the houses.
- Noise emissions are to be reduced by the use of a computerised feeding system. Therefore pigs do not associate feeding with people entering and leaving the houses.

Energy Efficiency

Energy costs will be a significant part of the running cost of this farm. The amount of energy (electricity/oil) used will be minimised by high insulation standards, regular maintenance and minimal wastage.

In an effort to reduce the possibility of accidents or the impact if one does occur, Mr. John Kiernan has taken a number of precautions:

- Excess customers for pig manure are available.
- In excess of 6 months slurry storage capacity to be provided.
- The manure storage tanks will be visually inspected to ensure adequate storage capacity is remaining.
- The storm water discharge points will be monitored weekly for colour and odour and quarterly a sample will be taken and analysed in a laboratory.
- Adequate on site space provided for all traffic movements.

Should any incident with the potential for environmental contamination arise, Mr. John Kiernan will,

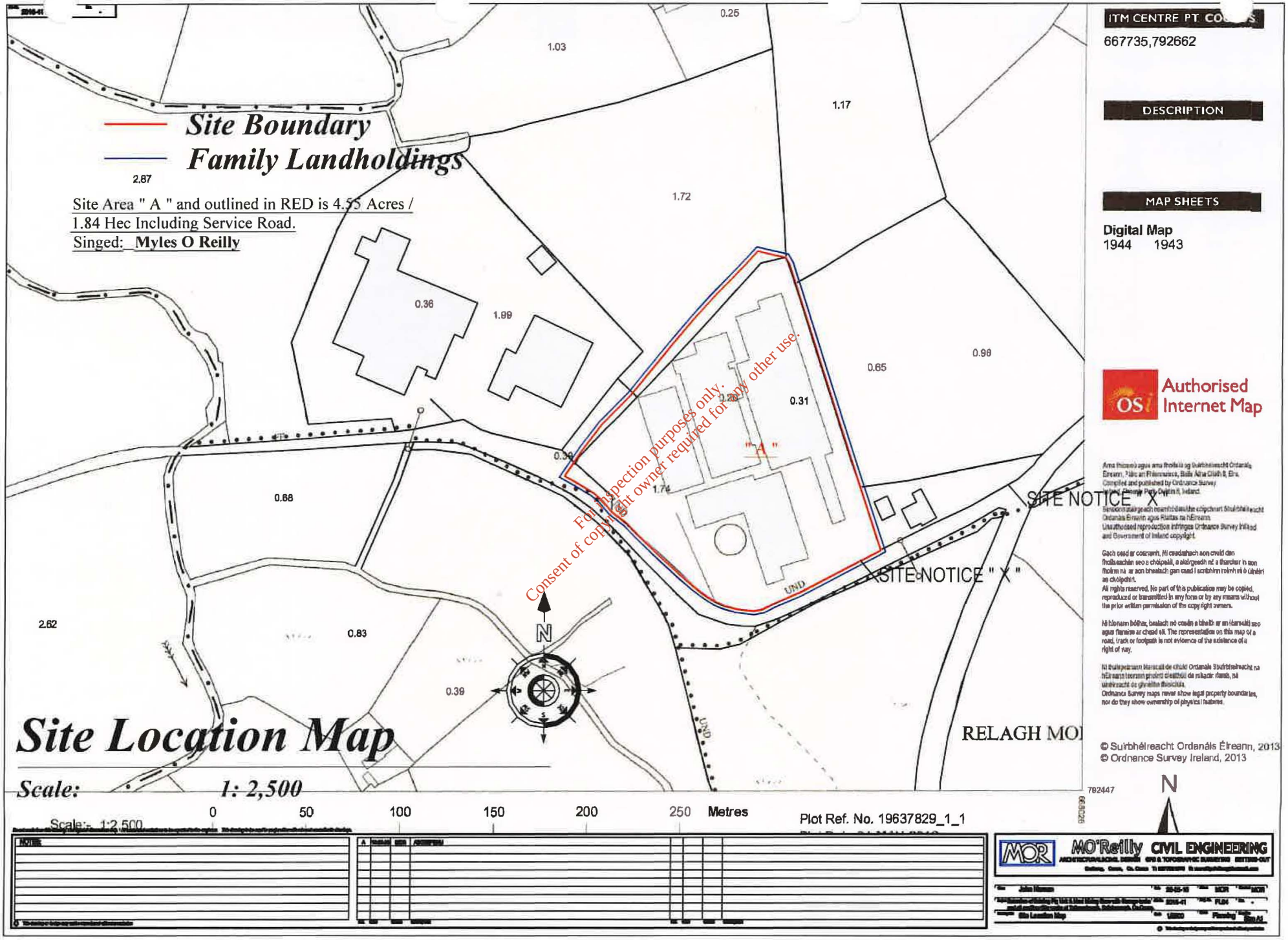
- Inform the Licensing and Control Officer of the E.P.A.
- Inform the local authority and local regional fisheries board where applicable.
- Take the most appropriate measures available to minimise the effect of the accident/spill.
- Consult with the E.P.A. and local authority on any further appropriate remedial action required.

Specific programmes have been outlined to deal with the possibility of cessation of activity at this site:

- Pigs will be sold.
- Animal tissue, veterinary waste and any other wastes will be removed as per normal.
- Feed will be removed from the bins and any unopened medicines returned to the supplier.
- Pig manure will be removed from the tanks and made available to customer farmers as per normal.
- The houses will be washed and disinfected.

Attachment No. B2

Site Location Map
Site Plan (Not to Scale)



2016-41 PL03 -

AGRI GEAR Sheds

AGRI GEAR Sheds

AGRI GEAR Sheds

Site Boundary

Skip

Silo

Loading Bay

Water Tanks

Store

Site Boundary

Raised Water Tanks

Landscaped Area

Surface Water Inspection Pit

LD Sump

Landscaped Area

Total Constructed Area

LD Sump

Site Boundary

Landscaped Area

Meal Bin

Surfacewater to local Water Course.

(SWB) Surface Water Monitoring Point

5000g Dirty Water holding tank. With a switck valve before.

Proposed Concrete Wash Area for Pig trailers. Run off to tank

Stoned Area

Site Boundary

Site Boundary

Gilt House (L)

New Pig House (O)

Dry Sow House (M)

House 1

House 2

Finishing House (B)

2nd Stage Weaner House (A)

Ex-Service Road

Site Boundary

Pig Pens

Gully

Site Boundary

Sow/Fattening House (H)

Double Skin Oil Tank

Gully

Vet Supplies

Store

Boiler Room

Ex-Dwelling

Office

Old Septic Tank

OSWWTS

Site Boundary

Aqua Drain at Entrance See Detail A

Existing Entrance

SITE NOTICE " X "

Concrete Apron

Site Boundary

Gully

Surface Water Sump (SWA)

Surfacewater to local Water Course.

House 3

Dry Sow House (N)

2 Stage Weaner House (I)

House (H)

(B)

Ex-Service Road

Ex-Service Road

LD Sump

Ex-Service Road

Previously Approved Floor Area

Floor Area for as Constructed

N

Site Area " A " and outlined in RED is 4.55 Acres / 1.84 Hec Including Service Road

Singed Myles O Reilly

SITE PLAN
Scale 1/500

Do not scale from this drawing, use figured dimensions only. All errors and omissions to be reported to the engineer. This drawing to be read in conjunction with relevant consultant's drawings.

NOTES:

rev.	date	drawn	description
A	12.02.08	MOR	ABCDEFGHIJ

MO'Reilly CIVIL ENGINEERING
ARCHITECTURAL&CIVIL DESIGN GPS & TOPOGRAPHIC SURVEYING SETTING-OUT
Crubany, Cavan, Co. Cavan T: 0877521970 E: mareillycivileng@hotmail.com

Client John Kiernan | Date 26-07-16 | Drawn MOR | Checked MOR

Project Construction of 4 no Pig Units & Meal Mixing Store with Storage tanks and all ancillary Site works at Tullynaskeagh, Ballaborough, Co.Cavan. | Job No. 2015-41 | Dwg No. PL03 | Rev -

Drawing Title Proposed Site Plan | Scale 1/500 | Status Planning | Dwg Size Size A1

Attachment No. B6

Site Planning History
Letter of Confirmation from Planning Authority.

PLANNING AND DEVELOPMENT ACT 2000 - 2015
NOTIFICATION OF FINAL GRANT

COUNCIL OF THE COUNTY OF CAVAN

TO: John Kiernan
C/o C.L.W. Environmental Planners Ltd.,
The Mews
23, Farnham Street
Cavan

Planning Register Number: 17/72

Application Receipt Date: 02/03/2017

Further Information Received Date:

In pursuance of the powers conferred upon them by the above-mentioned Act, Cavan County Council have by Order dated 19/04/2017 **GRANTED** PERMISSION to the above named, for the development of land, namely:-
to demolish c. 7 No. existing pig houses and ancillary structures and construct 3 no. replacement pig houses together with all ancillary structures and all associated site works (An Environmental Impact Statement (E.I.S.) relating to this proposed development will be submitted with this planning application) and to retain 1 no. Pig House (constructed in lieu of 1 No. pig house approved under planning Ref. 10/44), and 1 No. ancillary store, together with all ancillary structures and all associated site works, on the site of existing pig farm. This application relates to a development, which is for the purposes of an activity requiring a licence under part IV of the Environmental Protection Agency (Licensing) Regulations 1994 to 2013. at Tullynaskeagh, Bailieboro, Co. Cavan in accordance with the plans submitted with the application.

Subject to the 7 condition(s) set out in the 2nd Schedule and for the reason set out in the 1st Schedule.

Signed on behalf of Cavan County Council.

SENIOR STAFF OFFICER

Date: 13 November, 2017

Note:
It should be noted that an Outline Permission is a permission subject to the subsequent permission of the Planning Authority and that until such subsequent permission has been obtained to detailed plans of the development proposed, the development is NOT AUTHORISED. Where Outline Permission has been granted any subsequent application for permission must be made not later than 3 years beginning on the date of the grant of outline permission.
Planning permission granted shall, on the expiration of the period of 5 years beginning on the date of the granting of permission, cease to have effect as regards:-

(1) In case the development to which the permission relates is not commenced during the period, the entire development and

(2) In case such development is so commenced, so much thereof as is not completed within that period.

PLANNING & DEVELOPMENT ACTS 2000 – 2004

PLANNING APPLICATION: John Kiernan. REG. NO. 17/72

SCHEDULE 1

It is considered that, subject to compliance with the conditions set out below, the proposed development would not injure the amenities of the area, give rise to a traffic hazard or be prejudicial to public health and would be in accordance with the proper planning and development of the area.

SCHEDULE 2

1. Development shall be carried out in accordance with plans and particulars submitted to and received by the Planning Authority on 02/03/2017 subject to the requirements of the following conditions.

   In the interest of proper planning and sustainable development.

2. Prior to commencement of the development, the developer shall pay the sum of €3,640 (updated at the time of payment in accordance with changes in the Wholesale Price Index – Building and Construction (Capital Goods), published by the Central Statistics Office) to the Planning Authority as a contribution towards expenditure that was and /or is proposed to be incurred by the Planning Authority in respect of public infrastructure and facilities benefiting development in the area of the Authority, as provided for in the Contributions Scheme for Cavan County made by the Council.

   With reference to Section 48 of the Planning & Development Act 2000.

3. No surface water from roofs or paved areas shall flow from the site (including entrance area) onto the road adjoining the site but shall be collected by a surface water drainage system and discharged direct to nearby watercourses.

   In the interests of public health, traffic safety and amenity.

4. A brochure/catalogue of the proposed finishes shall be submitted to the Planning Authority for approval prior to the commencement of work on site.

   In the interests of visual amenity.

5. All mitigation measures outlined in the EIS submitted with the application on 02/03/2017 shall be carried out in full and in strict compliance with these lodged documents.

   In the interests of proper planning and sustainable development.

6. All best practice measures outlined in the Statement of Screening for Appropriate Assessment submitted with the application on 02/03/2017 shall be carried out in full and in strict compliance with these lodged documents.

In the interests of proper planning and sustainable development.

7. (i) Prior to the commencement of work on site, the developer shall submit for written approval from the Waste Management Section of Cavan County Council, a site specific Construction Waste Management Plan.

(ii) Prior to operation of the proposed development, the developer shall submit for written approval from the Waste Management Section of Cavan County Council an Operational Waste Management Plan.

In the interests of ensuring the proper management of wastes and in the interests of the proper planning and sustainable development of the area.

Senior Staff Officer

Memorandum

From		To	
	Noeleen Shannon **Assistant Planner**		**Senior Planner** **Planning Section**

Date **April 12th 2017**

Planning Reg. No: **17/72**

Applicant: **John Kiernan**

Type of Application: **permission**

Development Description: to demolish c. 7 No. existing pig houses and ancillary structures and construct 3 no. replacement pig houses together with all ancillary structures and all associated site works (An Environmental Impact Statement (E.I.S.) relating to this proposed development will be submitted with this planning application) and to retain 1 no. Pig House (constructed in lieu of 1 No. pig house approved under planning Ref. 10/44), and 1 No. ancillary store, together with all ancillary structures and all associated site works, on the site of existing pig farm. This application relates to a development, which is for the purposes of an activity requiring a licence under part IV of the Environmental Protection Agency (Licensing) Regulations 1994 to 2013.

Municipal District **Bailieborough/Cootehill**

Site location

Proposed site is located off Regional Road R-191-1 in townland of Tullynaskeagh, Bailieborough.

Site notice

A site notice was erected on date of site inspection and was visible and legible from the public road. There are two sites notices, one at the junction with the regional road and one at the entrance to the site.

Planning Policy

Proposed site is located in a rural area outside of the development envelope of any designated village/town.

Cavan County Development Plan 2014-2020, Section 3.4, Agricultural Policies and Objectives apply.

Agriculture Policies

EDP1 To implement at county level provisions set out in 'Harvest 2020' subject to environmental carrying capacity constraints.

EDP2 To facilitate and encourage the sustainable development of agricultural enterprises, agri-tourism projects and farm diversification and other suitable proposals that supports the development of alternative rural enterprises.

EDP3 To promote sustainable agricultural development whilst ensuring that development does not have an undue negative impact on the visual amenity of the countryside.

EDP4 To support the development of on-farm tourism enterprises including the provision of tourism facilities such as the renovation of farm buildings for tourism purposes, and the development of walking, cycling, angling, pony trekking and bird watching, subject to the principles of proper planning and sustainable development. Proposed developments shall not adversely affect protected habitats and species.

Agriculture Objectives

EDO1 To promote the continued development and expansion of the Agri-Food Sector.

EDO2 To encourage and facilitate agricultural diversification into agri-businesses such as organic foods, rural/agri- tourism, farmhouse accommodation, pet-farms, horse trekking centres and small to medium sized enterprises subject to the retention of the holding for primarily agricultural use and the proper planning and sustainable development of the area.

EDO3 To support the horticulture and nursing stock industry as a means of diversifying agriculture and contributing to the maintenance of population in the rural area.

EDO4 To ensure that all agricultural activities comply with legislation on water quality, such as the Phosphorous Regulations, Water Framework Directive and Nitrates Directive.

EDO5 To encourage the development of environmentally sustainable agricultural practices, to ensure that development does not impinge on the visual amenity of the countryside and that watercourses, wildlife habitats and areas of ecological importance are protected from the threat of pollution.

EDO6 To recognise and support the role of farmers as custodians of the natural resources of the countryside and of rural landscapes which are valuable to existing and future generations. Ensure that development does not have an undue negative impact on the visual or scenic amenity of the Countryside. Protect soil, groundwater, wildlife habitats, conservation areas, rural amenities and scenic views from adverse environmental impacts as a result of agricultural practices.

EDO7 To support agricultural development as a contributory means of maintaining the population in the rural area and sustaining the rural economy, whilst maintaining and enhancing the standing of the rural environment and through application of the Water Framework and Habitats Directive.

Planning History

16/283 – John Kiernan applied for permission to retain 1 No. pig house (constructed in lieu of 1 No. pig house approved under planning ref. 10/44), and, 1 No. ancillary store, together with all ancillary structures and all associated site works on the site of existing pig farm. This application relates to a development, which is for the purposes of an activity requiring a licence under Part IV of the Environmental Protection Agency (Licensing) Regulations 1994 to 2013 – application withdrawn

10/44 – John Kiernan granted permission to construct 1 no pig farrowing house, together with all ancillary structures and all associated site works on the site of existing pig farm

06/2495 – John Kiernan granted permission to decommission 1 No. existing overground manure storage tank and to construct 1 No. loose dry sow house, together with all ancillary structures and all associated site works on the site of existing pig farm (EOT granted, expiry 02/05/2017)

04/909 – John Kiernan granted permission to demolish existing 2 no. weaner houses and 1 no. finishing house and construct 2 no. new replacement weaner houses, replace existing front boundary post and wire fence with new concrete block wall, upgrade existing entrance and construct new sow house to comply with E.U. (welfare of calves and pigs) regulations 2003 on this site

8011283 – Fred Clarke granted permission to erect grain store

Pre-Planning

P. Fay, CLW, N Shannon, N O'Kane, Cavan County Council, 01/02/2017, ref 0354. Issues discussed – permitted in principle, established use, EIS required, proposed to demolish 7 existing and build 3 new and retention for changes to existing unit.

Submissions

None.

Representations

Submission from Environmental Protection Agency noted. Following observations made:

- Applicant issued IPPC licence in 2003 for pig rearing and amendments made in 2013
- Noted that development involves change to activities and licence may need to be reviewed or amended, licensee has not yet contacted Agency for a determination
- Noted planning application accompanied by EIS
- EIS appears to address key points in relation to environmental aspects of proposed activity which relate to matters that come within functions of Agency. Also appears to address direct and indirect effects of development on aspects of the environment listed in section 83 (2A)(a) of EPA Act
- As part of its consideration of any licence review, agency shall ensure that revised licence will be made subject to EIA
- Consultation on licence application and EIS will be carried out in accordance with EPA Act
- All matters to do with emissions to the environment will be assessed by Agency in licence application
- Activities such as processing of animal feed, use or organic fertiliser as fertiliser beyond the site boundary etc cannot be controlled by a condition of an IE licence because they do not occur within the site boundary
- Agency cannot issue a proposed determination on licence application which addresses the development until a planning decision is made

Application was referred to Inland Fisheries Ireland, An Taisce, Department of Arts, Heritage and The Heritage Council – no representations received to date.

Reports

Environment Section report noted. Following comments made:

- Having assessed the Cavan Groundwater Protection Scheme Maps, prepared for Cavan County Council by the Geological Survey of Ireland, it is evident that proposed development is located in an area designated as a Poor Aquifer with Moderate Vulnerability.
- The proposed development is located in the Eastern River Basin District, in the Blackwater North Water Management Unit; the water body is classed as Poor Ecological Status. This status must be restored to Good Status in accordance with the requirements of the Water Framework Directive.
- The site operates under an EPA IED Licence.
- Appendix 1 of the EIS provides some info on the proposed customer farms for the slurry produced from the pig unit. Appendix 6 of the EIS provides general OSi map level info on the location of the proposed customer farms.
- Animal Waste is to be collected & rendered by College Proteins.
- All Construction & Demolition Waste will be managed as per the Construction & Demolition Plan including appropriate recovery routes as proposed in the submitted application documents.
- Existing animal numbers as per E.P.A. Licence - c. 904 sows with c. 2/3 moved off site at 32-35 kg and 1/3 reared to market weight
- Proposed stock numbers - c. 1,350 sows with all pigs produced moved off site at 18-20kgs
- Proposed and existing slurry production is as per page 33 of the EIS - 11337m³ and 11400m³ respectively.
- Total pig numbers to be reduced by c. 1784 head as per table detailed on page 27 of EIS.
- A Customer Fertiliser Plan was submitted with the application.
- The planning authority in granting permission for a development requiring a license from the EPA may not impose conditions in relation to the environmental emissions from this activity.

- The planning authority may decide to refuse a grant of permission in respect of a development requiring a licence from the EPA on the grounds that the development would have a detrimental effect on the surrounding environment.
- The protection of visual amenity, archaeological sites, natural heritage areas and other special protection areas, etc., remain the responsibility of the planning authority in so far as these relate to the actual on-site development.
- The planning authority retains responsibility for access, transportation and road safety.
- Insofar as the Council can make judgement on the environmental issues of the proposed development at this existing IED licensed facility, I recommend unconditionally.
- **I recommend that the Environmental Protection Agency (EPA) and Inland Fisheries Ireland (IFI) should be notified regarding the details of this application.**

Municipal District Engineers report noted

- No objections in principle

Planning Assessment

Application details:

- Site area 01.84ha
- Gross floor space of existing buildings c8,000sq.m.
- Gross floor space of proposed works 4,131.5sq.m.
- Gross floor space of work to be retained 541.14sq.m.
- Gross floor space of any demolition 3,278sq.m.
- Water supply – private well
- Surface water disposal to watercourse

This planning application relates to permission on the site of an existing pig farm to:

- demolish 7 existing pig houses and ancillary structures
- construct 3 replacement pig houses together with all ancillary structures
- retain 1 Pig House (constructed in lieu of 1 pig house approved under planning Ref. 10/44)
- 1 ancillary store
- all ancillary structures
- all associated site works

An Environmental Impact Statement (E.I.S.) relating to this proposed development was submitted with this planning application.

This application relates to a development, which is for the purposes of an activity requiring a licence under part IV of the Environmental Protection Agency (Licensing) Regulations 1994 to 2013.

Planning Application for Construction of Farm Developments for Dairy Facilities, Silage Facilities and the Housing of Animals:

- Proposed slurry storage of covered tanks, underground
- Pigs, existing c. 904 sows, 60 weaner, proposed 1,350
- Floor area of proposed building 4,131.5sq.m.

Proposed Site

Proposed site is located in a rural area in the townland of Tullynaskeagh, approx. 3.5km south of Bailieborough Town. Site is currently in use as a pig farm and is located adjacent to Agri Gear Tyre manufacturing facility. Site will be accessed off existing entrance which is on a laneway off the Regional Road, R191.

Proposed Development

It is proposed to demolish 7 existing pig houses and ancillary structures and construction 3 new houses (2 no. dry sow/gilt houses and 1 no. farrowing house) with ancillary structures. Stock numbers will be revised to c. 1,350 sows. Permission is also sought to retain changes made to a pig house granted under 10/44.

Environmental Impact Statement

An EIS has been submitted with this application which contains:

- **Non technical summary**
- **Introduction** - national policy (Food Harvest 2000), County Development Plan, organizations/bodies consulted
- **Description of development** -
- objective, farm can operate in line with EPA, Dept requirements and animal welfare regs, size and scale of development outlined, operating hours 0600 to 1800 mon to fri and 0700 to 1300 sat and sun
- Existing pig farm licensed by EPA as 904 sow semi-integrated pgi farm, this farm houses all of the breeding stock and all of the pigs born on the farm until they reach a liveweight of 30/35kg and then two thirds are moved off site to alternative rearing accommodation and one third remain on farm until they reach market weight. Existing farm consist of 15 pig houses and ancillary structures
- Proposed development will involve demolition of 7 existing houses and construction of 3 new houses
- Stock numbers will be revised to 1350 sows with all pigs moved off site at 18-20kg, while there are alterations in numbers of stock on farm, increase in sow numbers and reduction in finisher pig number, there will be no intensification of activities and no increase in organic fertilizer produced
- Also sought to regularise development constructed under 10/44, this was not subject to an EIS and alterations have not changed the basis for this decision

- Farm upon completion will operate as a dedicated pig breeding site as opposed to current semi-integrated status which will improve bio-security of farm and health status of stock; proposed development will redevelop and modernize the pig farm so it is welfare compliant
- **Data required to assess effects of development** - organic fertilser/manure production, manure storage capacity – no increase proposed, location of customer farmers – mainly Cavan and remaining Meat, applicant has his own transport system to facilitate.
- Description of alternatives - alternative sites, this is a redevelopment so alternative site not considered, site has been developed since 1960s. alternative layout and design – restricted by confines of site and scale and layout of existing structures. Alternative processes – historically outdoor pig farming dismissed and slatted underground slurry storage adopted to straw based due to shortage of straw in Cavan. Alternative management of by products – no viable alternative to spreading manure and no suitable alternative to disposal of carcasses and waste
- **Description of the existing environment**
- soil and subsoil geology, ground water, surface water (Boyne Catchment, site drains to tributary of Moynalty River).
- Air – odour from pig farm and spreading may arise. Existing farm operates without any significant effect on environment. Rural setting and distance to local residences will ensure no effect on human beings. Visual and landscape – farming activities have been carried out here since 1960s, existing farm relatively level, proposed development will be centrally located within existing farmyard and will replace existing structures, no adverse visual impact. Site not near any protected views, areas of high amenity, NHA, SAC, SPA or archaeological site.
- Noise/traffic - not anticipated that noise at this site will have any adverse impact on local environment, no third party dwellings within 200-220m of site. Traffic will increase as result of construction activities (temporary). Weekly

traffic during operation will decrease due to improved efficiencies and optimization of load sizes.

- Flora and Fauna – development planned on existing pig farm/brownfield site, no significant adverse impact on flora and fauna, existing site and adjoining area has been an agricultural farmyard for years and has poor level of plant diversity and no significant ecological importance
- Archaeology – nearest feature 400m, as proposed development is a re-development of existing brownfield site and distance from this feature, not anticipated development will impact on same
- Appropriate Assessment – screening report prepared, 3 Natura 2000 sites identified within 15km, activities at site have not had any adverse effect on conservation of these areas and wildlife and operation and development proposed will have no impacts.
- Population/employment – 4-6 people directly employed, indirect employment 5-60 nationally, additional employment during construction; no adverse effect on tourism; pig industry important in County Cavan, estimated at 150m per annum.
- Cumulative effects – mitigation measures proposed will ensure no significant adverse environmental impact on surrounding area. Proposed development will provide benefits with regard to quantity and quality of manure storage capacity
- **Description of impacts and mitigation measures**
- Soil - Storage capacity on site will ensure organic ferlitiser is spread only under most favourable soil conditions
- Surface and ground water – will remain protected due to exclusion of unsuitable land for spreading and spreading at suitable times in accordance with Nitrates. Clean storm water will discharge into tributary of Moynalty River, tributary of River Boyne. Soiled water will be directed into manure storage tanks.

- Air/climate – washing routines will minimize odour. Rural setting and location distant from local residences in excess of 200m will ensure no effect on human beings
- Waste – stored and disposed of/recovered in accordance with CCC/EPA requirements
- Landscape and visual – proposed buildings will integrate with existing, farm will have no impact on landscape/visual
- Noise – ventilation equipment, blowers, feed delivery trucks, short term increase during construction, insignificant outside site boundaries, due to rural location and low population density, pig farm will not create disturbance, traffic during normal working hours
- Traffic – temporary increase during construction, operational traffic redcued
- Flora and Fauna – site has poor level of ecological diversity and no unique habitats, not proximate to any special policy areas, amenity area or archaeological features
- Cumulative effects – measures to mitigate against adverse cumulative impacts proposed
- Interaction of effects – only positive and neutral effects identified, no negative
- **Environment management programme** – including Slurry Managemnet, Environmental Monitoring
- **Summary** – proposal will make significant contribution to rural economy of Cavan, securing employment and local construction industry, utilize existing resources. New buildings will integrate successfully with surroundings and not give rise to any significant environmental effects. Organic ferliser production will remain unchanged. Quality and quantity of manure storage capacity will be increased. Health status of farm will be improved. Traffic will be reduced and potential emissions to air will be reduced.
- Appendices include customer farmland details, site location map, site layout, engineers drawings, legend for engineers drawings slurry storage capacity, location of potential customer farmland areas, domestic waste disposal, animal tissue disposal, local water quality survey, construction and demolition

waste management plan, met data, screening report for AA, Soil maps and profile, noise surveys, EC Weflare Regs, Nitrates Directive, Archaeolgocial map, EPA Licence and GSI Data.

- Construction Management Plan contains information on demolition and disposal of wastes, a site development and construction plan.

Environmental Impact Assessment

Section 172 of Planning and Development Act, 2000, as amended, requires planning authorities to carry out an environmental impact assessment in relevant cases. Section 171A set outs in detail, what an assessment must comprise. The assessment must include an examination, analysis and evaluation and it must identify, describe and assess in an appropriate manner, in light of each individual case and in accordance with Articles 4 to 11 of EIA Directive, the direct and indirect effects of a proposed development on the following:

(a) Human beings, flora and fauna.

(b) Soil, water, air, climate and the landscape

(c) Materials assets and the cultural heritage, and

(d) The interaction between the factors above

(a) Human beings, flora and fauna.

Human Beings

Proposed development is a redevelopment of an existing pig farm. As noted in EIS there are no third party dwellings within 200m. Potential impacts from proposed development on human beings could include visual, noise, odour, traffic. Visually, proposed building is agricultural in nature and similar to existing on site. Proposed development will integrate with existing and will not result in a negative visual impact. Emissions from exisitng development are controlled by EPA and emissions from proposed development will be controlled should a licence review be granted. Subject to good management and using Best Available Technologies, noise is not likely to impact on human beings beyond the site boundary. Odour may increase when animals and/or manure are being

removed but this would be temporary in nature. The houses will be properly ventilated houses and wastes (manure and dead animal carcasses) will be removed off site by authorized contractors. Traffic will temporarily increase during construction but is not likely to have a significant long term adverse impact. During operation, traffic movements are expected to decrease.

Flora and Fauna

Proposed site is an existing pig farm developed since the 1960s with poor biological diversity. Site not close to any designated SAC/SPA/NHA. Proposed development not likely to have a significant impact on flora and fauna.

(b) Soil, water, air, climate and the landscape

Soil – structures proposed to be constructed on land already part of existing farmyard. Outside of site boundary, spreading of organic manure will be carried out in accordance with SI 31 of 2014 (Nitrates Directive). Soiled water will be collected in tank and applied to lands in compliance with Nitrates Directive.. It is not considered likely that proposed development will result in significant adverse impact on soil.

Water – Clean storm water will discharge into tributary of Moynalty River, tributary of River Boyne. Soiled water will be directed into manure storage tanks. Proposed development not likely to significantly impact on water subject to good management and properly constructed tanks in accordance with Dept Agri Regs.

Air – good management practices as outlined in the EIS will ensure that any potential odour emissions from proposed development are not likely to be significant or adverse.

Climate – as outlined above potential impacts from odour will be minimized through good management practices and compliance with Nitrates Directive. Dust and emissions from construction traffic can be minimized through mitigation measures. Proposed development not likely to have a significant adverse impact on climate.

Landscape – proposed development is a redevelopment of an existing pig farm in existence since the 1960s. It is considered that proposed redevelopment will

not be visually obtrusive in the landscape and will blend in with existing activities on site. Site not close to any high landscape areas, major lakes, county heritage sites, scenic viewing points or scenic routes, river/lakeside amenities or parks, NHAs, SACs or SPAs. It is not considered that proposed development will be likely to result in a significant impact on landscape.

(c) Materials assets and the cultural heritage

Proposed development will not impact on material assets as outlined in EIS. In relation to cultural heritage there are no protected structures or archaeological monuments within close vicinity of the site that will be significantly impacted upon as a result of proposed development. Nearest archaeological monuments are in excess of 500m.

(d) The interaction between the factors above

EIS contains a matrix indicating inter relationships between EIA factors and none of them are negative, they are either neutral or positive.

Appropriate Assessment Screening

- Site dominated by buildings and artificial surfaces, no habitats of ecological value
- Site within Eastern River Basin District, Boyne River Catchment and Moynalty sub-catchment, watercourse 10m south flows in to Barora River, tributary of Moynalty, tributary of Boyne. Barora River classified as good ecological status.
- 3 Natura 2000 sites identified within 15km, River Boyne and Blackwater SAC and SPA and Killyconny Bog SAC. Descriptions and qualifying interests given.
- Impacts of proposed development on Natura 2000 sites – adequate distance between site and designated areas to ensure no direct impacts will occur; all manure storage and land spreading must be carried out in accordance with SI31 2014 and no land spreading within SAC/SPA; no land take from

designated sites and no interference with boundaries; no resources taken; no emissions – only clean surface water to local watercourse and silt trap to be installed; no direct distrurbance to species, no habitat or species fragmentation, no ecological corridors damaged or destroyed; no negative impacts on surface or ground water quality.

- Finding of no significant effects – no impacts likely
- Best practice measures proposed
- Conclusion – proposed development will have no impacts upon any SAC or SPA, does not need to proceed to Stage II AA process.

Conclusions and Recommendations

Policies and objectives of the Development Plan support sustainable development of agricultural enterprises within the County. Proposed development of replacement pig units at an existing pig farm is compatible with this policy. Having regard to the nature of the proposed development, the location and assessment of likely environmental effects, it is considered that proposed development is acceptable in principle at this location. In compliance with Development Plan policy, proposed development will not have an undue negative impact on the visual amenity of the countryside. Proposed development will not adversely impact on any protected habitats or species. Watercourses, wildlife habitats, soil, groundwater, scenic view or areas of ecological importance will not be impacted upon subject to good management practices and appropriate mitigation measures. Proposed development will not impact on residential amenities as a result of odour or noise emissions. Proposed development will not have a significant impact on roads in the area. This is a part redevelopment of an existing pig operation at this location. Access and service road off the regional road is existing and traffic movements as a result of the ongoing operation of the proposed development will not be significant. Overall, it is considered that the proposed development is in accordance with the proper planning and sustainable development of the area. A grant of permission is recommended subject to conditions. Noted that proposed development is

subject to an EPA licence and review and therefore the Planning Authority in granting permission for a development requiring a license from the EPA may not impose conditions in relation to the environmental emissions from this activity.

Development contribution – proposed development is 4,131.5sq.m and retention for 541.14sq.m.

Conclusions and Recommendations

Grant of permission recommended, subject to the following conditions:

Conditions

1. Development shall be carried out in accordance with plans and particulars submitted to and received by the Planning Authority on 02/03/2017 subject to the requirements of the following conditions.

   In the interest of proper planning and sustainable development.

2. Prior to commencement of the development, the developer shall pay the sum of €3640 (updated at the time of payment in accordance with changes in the Wholesale Price Index – Building and Construction (Capital Goods), published by the Central Statistics Office) to the Planning Authority as a contribution towards expenditure that was and /or is proposed to be incurred by the Planning Authority in respect of public infrastructure and facilities benefiting development in the area of the Authority, as provided for in the Contributions Scheme for Cavan County made by the Council.

   With reference to Section 48 of the Planning & Development Act 2000.

Information Note - Public Water and Waste Water Networks

Connections

On the 1st of January 2014 Irish Water became the statutory body with the responsibility for all water services, both water and waste water. Therefore any persons seeking a connection to any public network, either water or waste water, should make an application directly to Irish Water. A Connection Agreement between Irish Water and the applicant will be required prior to any connection being agreed, and will set out the conditions and charges to be applied to the connection. Details, including availability of application forms, are to be found on the Irish Water website www.water.ie . The agreement of Irish Water must be obtained prior to any works commencing.

3. No surface water from roofs or paved areas shall flow from the site (including entrance area) onto the road adjoining the site but shall be collected by a surface water drainage system and discharged direct to nearby watercourses.

   In the interests of public health, traffic safety and amenity.

4. A brochure/catalogue of the proposed finishes shall be submitted to the Planning Authority for approval prior to the commencement of work on site.

   In the interests of visual amenity.

5. All mitigation measures outlined in the EIS submitted with the application on ~~21/12/2016~~ 02/02/17 shall be carried out in full and in strict compliance with these lodged documents.

   In the interests of proper planning and sustainable development.

6. All best practice measures outlined in the Statement of Screening for Appropriate Assessment submitted with the application on ~~21/12/2016~~ 02/03/17 shall be carried out in full and in strict compliance with these lodged documents.

In the interests of proper planning and sustainable development.

7. (i)Prior to the commencement of work on site, the developer shall submit for written approval from the Waste Management Section of Cavan County Council, a site specific Construction Waste Management Plan.

(ii) Prior to operation of the proposed development, the developer shall submit for written approval from the Waste Management Section of Cavan County Council an Operational Waste Management Plan.

In the interests of ensuring the proper management of wastes and in the interests of the proper planning and sustainable development of the area.

Planner Signature N. Williams **Date** 12/04/17

Development Contribution Calculation Record for Planning Reference 17/72

New build 3 pighouses 4131.5m²

Calculation Demolish 7 .. 3278

853.5m² - 300 = 553.5m² x 5

€2767.5

Any exemptions due Retain 1 pighouse 541.14m²

Approved under 16 144 424.76m²

116.38 x €5 x 1.5 - €872.85

Devt Contribution due €3640

€2767.50
€872.85
€3640.35

Any other comment

Initials AM Date 13/4/17

Cavan County Council
Planning Referral Sheet

Planning Reference: 17/72

Applicants Name: John Kiernan

Date Referred:

Completed form to be returned before:

Engineering Area: Bailieboro / Cootehill,

Location: Tullynaskeagh,

Road No: off - K191-1

Previous Planning Ref: 10/44

For Completion By Area Engineer

Site Notice Details

Date Site Inspection took place: 21/3/17

Is Notice Displayed: YES ✓ NO

Is site Notice visible and legible from public road YES ✓ NO

Planning Conditions/Comments

No objection in principal

CAVAN CO. COUNCIL RECEIVED 31 MAR 2017 PLANNING SECTION

Signed:

Dated: 21/3/17

Attachment No. B8

Copy of Site Notice.
Map showing Location of Site Notice
Copy of Newspaper Advertisement
Copy of Notification to Local Authority

CLW Environmental Planners Ltd.

The Mews,
23 Farnham Street,
Cavan,
Co. Cavan

Phone: 049-4371447/9
Fax: 049-4371451
E-mail: info@clw.ie

Cavan County Council,
Farnham St,
Cavan,
Co. Cavan.

16th November 2017

Re: APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A LICENCE

Dear Sir/Madame,

Notice is hereby given in accordance with the E.P.A. Acts 1992 to 2013, that Mr. John Kiernan, Ballinamoney, Bailieboro, Co. Cavan intends to apply to the Environmental Protection Agency (E.P.A.) for a review of his Licence for his pig farm at Tullynaskeagh, Bailieboro, Co. Cavan, National Grid Reference E 267910, N 292626

This enterprise is classed as:

Activity Class 6.2, " The rearing of pigs in an installation, where the capacity exceeds ***(a)*** 750 places for sows.

An Environmental Impact Statement relating to this activity, which has been submitted to Cavan County Council, will be submitted to the Agency as part of this application.

A copy of this application for a Licence, including the Environmental Impact Statement and any further information relating to the effects on the environment of the emissions from the activity which may be furnished to the Agency in the course of the Agency's consideration of the application, may be inspecte on the Agency's website or inspected at or obtained from the headquarters of the Agency (Tel: Lo-call 1890 33 55 99 or 053-9160600) as soon as is practicable after the receipt by the Agency of the application for the licence.

Should you have any queries in relation to this, or, require any further information please do not hesitate to contact me at the above number.

Yours Faithfully,

Patrick Fay B.Agr.Sc.

" APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A REVIEW OF A LICENCE"

Site Notice

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A copy of this application for a Licence, including the Environmental Impact Statement and any further information relating to the effects on the environment of the emissions from the activity which may be furnished to the Agency in the course of the Agency's consideration of the application, may be inspected on the Agency's website or inspected at or obtained from the headquarters of the Agency (Tel: Lo-call 1890 33 55 99 or 053-9160600) as soon as is practicable after the receipt by the Agency of the application for the licence.

Signed: _____ (on behalf of applicant)

Paraic Fay B.Agr.Sc.
C/o C.L.W. Environmental Planners Ltd.,
The Mews,
23 Farnham St.,
Cavan.

Date of erection of Site Notice: 16th November 2017

2016-41 PL03

AGRI GEAR Sheds

AGRI GEAR Sheds

AGRI GEAR Sheds

Site Boundary

Skip

Silo

Loading Bay

Water Tanks

Store

Site Boundary

Raised Water Tanks

Landscaped Area

Surface Water Inspection Pit

LD Sump

Landscaped Area

Total Constructed Area

LD Sump

Site Boundary

Landscaped Area

Meal Bin

Surfacewater to local Water Course.

(SWB) Surface Water Monitoring Point

5000g Dirty Water holding tank. With a switck valve before.

Proposed Concrete Wash Area for Pig trailers. Run off to tank

Stoned Area

Site Boundary

Site Boundary

Gully

Surface Water Sump (SWA)

Surfacewater to local Water Course.

Site Boundary

Ex-Service Road

2nd Stage Weaner House (A)

Finishing House (B)

Pig Pens

Gully

Site Boundary

House 2

House 1

Dry Sow House (M)

New Pig House (C)

(B)

Ex-Service Road

Sow/Fattening House (H)

Double Skin Oil Tank

House (H)

Gully

Vet Supplies

Store

Boiler Room

Ex-Dwelling

Office

Old Septic Tank

OSWWTS

Site Boundary

Aqua Drain at Entrance See Detail A

Existing Entrance

Gilt House (L)

House 3

2 Stage Weaner House (I)

Dry Sow House (N)

LD Sump

Ex-Service Road

Ex-Service Road

Site Boundary

SITE NOTICE " X "

Concrete Apron

Previously Approved Floor Area

Floor Area for as Constructed

N

Site Area " A " and outlined in RED is 4.55 Acres / 1.84 Hec Including Service Road.
Singed. **Myles O Reilly**

SITE PLAN
Scale 1/500

Do not scale from this drawing, use figured dimensions only. All errors and omissions to be reported to the engineer. This drawing to be read in conjunction with relevant consultant's drawings.

NOTES:

rev.	date	drawn	description
A	12.02.06	MOR	ABCDEFGHIJ

MO'Reilly CIVIL ENGINEERING
ARCHITECTURAL&CIVIL DESIGN GPS & TOPOGRAPHIC SURVEYING SETTING-OUT
Crubany, Cavan, Co. Cavan T: 0877521970 E: moreillycivileng@hotmail.com

Client: John Kiernan	Date: 26-07-16	Drawn: MOR	Checked: MOR
Project: Construction of 4 no Pig Units & Meal Mixing Store with Storage tanks and all ancillary Site works at Tullynaskeagh, Belleborough, Co.Cavan.	Job No. 2015-41	Dwg. No. PL03	Rev. -
Drawing Title: Proposed Site Plan	Scale: 1/500	Status: Planning	Dwg Size: Size A1

CLASSIFIEDS

Application To The Environmental Protection Agency For A Review Of A Licence. Notice is hereby given in accordance with the E.P.A. Acts 1992 to 2013, that Mr. John Kiernan, Ballinamoney, Bailieboro, Co. Cavan intends to apply to the Environmental Protection Agency (E.P.A.) for a review of his Licence for his pig farm at Tullynaskeagh, Bailieboro, Co Cavan, National Grid Reference E 267910, N 282626 This enterprise is classed as: Activity Class 6.2, The rearing of pigs in an installation, where the capacity exceeds (a) 750 places for sows. An Environmental Impact Statement relating to this activity, which has been submitted to Cavan County Council, will be submitted to the Agency as part of this application. A copy of this application for a Licence, including the Environmental Impact Statement and any further information relating to the effects on the environment of the emissions from the activity which may be furnished to the Agency in the course of the Agency's consideration of the application, may be inspected on the Agency's website or inspected at or obtained from the headquarters of the Agency (Tel: Lo-call 1890 33 55 99 or 053-9160600) as soon as is practicable after the receipt by the Agency of the application for the licence. Signed: Paraic Fay B.Agr.Sc., C/o C.L.W. Environmental Planners Ltd., The Mews, 23 Farnham St., Cavan.

Attachment C

Bankruptcy Declaration

RE: IE LICENCE APPLICATION

-DECLARATION RELATING TO BANKRUPTCY AND/OR OTHER INSOLVENCY PROCEEDINGS-

To whom it may concern

I, **John Kiernan,** **of** **Skeagh Farms, Ballinamoney, Bailieboro, Co. Cavan** hereby declare that neither I, nor any company of which I am or was a director, have been nor currently am the subject of any bankruptcy or other insolvency proceedings. I have not entered into any arrangements with my creditors nor have I been forced to suspend my business activities due to financial insolvency.

Signed _____

John Kiernan.

Licensee/Applicant

Date: 16/4/17

Attachment I2
Baseline Report

CLW Environmental Planners Ltd.

The Mews,
23 Farnham Street,
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BASELINE SCREENING REPORT

in respect of

AN APPLICATION FOR A REVIEW OF A LICENCE ON AN EXISTING PIG FARM

located at

TULLYNASKEAGH, BAILIEBORO, CO. CAVAN

Prepared on behalf of the Applicant

Mr. John Kiernan

by

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16th November 2017

BASELINE REPORT

Completed in accordance with

European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions

-APPLICATION FOR A LICENCE REVIEW -

1.0 INTRODUCTION

The Purpose of this Report is to complete a baseline report in respect of the existing pig farm sites at Tullynaskeagh, Bailieboro, Co. Cavan (Existing Licence Number P0640-01). This report will be provided in support of an application for a review of a licence to be submitted to the E.P.A.

This report has been completed in line with guidance issued by the European Commision concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions.

Article 22(1) of Directive 2010/75/EU on industrial emissions (IED) provides that, 'Without prejudice to Directive 2000/60/EC, Directive 2004/35/EC, Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration and to relevant Union law on soil protection, the competent authority shall set permit conditions to ensure compliance with paragraphs 3 and 4 of this Article upon definitive cessation of activities'.

Article 22, paragraphs 2 to 4, contains provisions for the definitive cessation of activities involving the use, production or release of relevant hazardous substances in order to prevent and tackle potential soil and groundwater contamination from such substances. A key tool in this respect is the establishment of a 'baseline report'. Where an activity involves the use, production or release of relevant hazardous substances and having regard to the possibility of soil and groundwater contamination, a baseline report is to be drawn up before starting the operation of the installation or before a permit for the installation is updated for the first time after 7 January 2013. The report will form the basis for a comparison with the state of contamination upon definitive cessation of activities. Where information produced pursuant to other national or Union law reflects the state at the time the report is drawn up, that information may be included in, or attached to, the baseline report.

Article 3(19) of the IED clarifies that the baseline report needs to provide information on the state of soil and groundwater contamination by relevant hazardous substances.

CLW Environmental Planners Ltd have been retained by Mr. John Kiernan to complete a baseline screening report in respect of an application for a licence.

1.1 STAGES IN PRODUCING A BASELINE REPORT

A number of key tasks should be undertaken to both determine whether a baseline report needs to be produced for a particular situation and in order to produce the baseline report itself.

Eight stages have been identified in this process, covering the following main elements:

Stages 1-3: to decide whether a baseline report is required;

Stages 4-7: to determine how a baseline report has to be prepared;

Stage 8: to determine the content of the report.

2.0 DETERMINATION AS TO THE REQUIREMENT FOR A BASELINE REPORT (I.E. COMPLETION OF STAGES 1 – 3)

2.1 Stage One

Activity - ***Identify which hazardous substances are used, produced or released at the installation and produce a list of these hazardous substances,***

and

Objective - ***Determine whether or not hazardous substances are used, produced or released in view of deciding on the need to prepare and submit a baseline report***

The existing/proposed development is the breeding and rearing of pigs to weaner and /or market weight in an semi-integrated pig. The farm is to operate forthwith as a specialised breeding unit rearing pigs to c. 18 Kg's. Pigs are to be transferred from the breeding unit at to a rearing/finishing farm(s). The production process involves the use provision of animal feed and water to the animals and the production of pigs and organic fertiliser.

As previously detailed the site had been destocked and is undergoing significant re-development.

- **Use of Hazardous Substances**

  No Hazardous substances are used on the farm with the exception of fluorescent tubes for lighting and disinfectant.

  Back-up generators are to be provided on each site, and same will involve ancillary fuel storage. Location of same and storage facilities to be determined and to be in line with Licence requirements.

- **Production of Hazardous Substances**

  No Hazardous substances are produced on the farm.

- **Release of Hazardous Substances**

  No Hazardous substances are released from the farm.

2.2 Stage Two

Activity - ***Identify which of the hazardous substances from Stage 1 are 'relevant hazardous substances' (see Section 4.2 referred to below). Discard those hazardous substances that are incapable of contaminating soil or groundwater. Justify and record the decisions taken to exclude certain hazardous substances.***

and

Objective - ***To restrict further consideration to only the relevant hazardous substances in view of deciding on the need to prepare and submit a baseline report***

Section 4.2 of Guidance:
'Relevant hazardous substances' are defined as (Article 3(18) and Article 22(2), first subparagraph) are those substances or mixtures defined within Article 3 of Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) which, as a result of their hazardousness, mobility, persistence and biodegradability (as well as other characteristics), are capable of contaminating soil or groundwater and are used, produced and/or released by the installation.

➢ Hazardous Substances Identified in Stage 1

1. ***FLUORESCENT TUBES***
   (containing mercury EC No. 231-106-7 as per Article 3 of Regulation (EC) No 1272/2008)

2. ***Vircon S Disinfectant***
   (containing Sulfamidic Acid EC No. 226-218-8 as per Article 3 of Regulation (EC) No 1272/2008)

3. ***DIESEL (Or other petroleum products)***
   (EC No. 302-695-9 as per Article 3 of Regulation (EC) No 1272/2008).

2.3 Stage Three

Activity - For each relevant hazardous substance brought forward from Stage 2, identify the actual possibility for soil or groundwater contamination at the site of the installation, including the probability of releases and their consequences, and taking particular account of:

— the quantities of each hazardous substance or groups of similar hazardous substances concerned;

— how and where hazardous substances are stored, used and to be transported around the installation;

— where they pose a risk to be released;

— In case of existing installations also the measures that have been adopted to ensure that it is impossible in practice that contamination of soil or groundwater takes place.

and

Objective - To identify which of the relevant hazardous substances represent a potential pollution risk at the site based on the likelihood of releases of such substances occurring. For these substances, information must be included in the baseline report.

1. FLUORESCENT TUBES

Quantity and Use – Electrician currently contracted to replace tubes as necessary and remove used tubes of site immediately. If tubes are to be stored on site this will be in a designated storage area, within existing storage shed (impervious floor and protected from breakage and removed off site at regular intervals.

Potential For Contamination of soil/groundwater – No source – receptor (soil/water) pathway.

Decision - Exclude from further consideration

2. Vircon S Disinfectant

Quantity and Use – Stored in powder form in 5 – 10 kg Buckets in a designated storage area, within existing storage shed (impervious floor) and protected from damage.

Potential For Contamination of soil/groundwater – Risk from spillage. Due to impervious floor - no source – receptor (soil/water) pathway.

The Virkon®S oxygen-based chemistry contains simple organic salts and organic acids and the active ingredient decomposes by a variety of routes within the environment, in soil and water, breaking down to form the naturally occurring substances, potassium salts and oxygen. The major organic components are classified as readily biodegradable according to OECD and EU tests. Virkon®S is not classified as R53* and is not persistent in the environment, according to the standard European process for the classification and labelling of chemical preparations.

Used as a foot dip at a dilution rate of 1 : 100.

Decision - Exclude from further consideration

3. DIESEL

Quantity and Use– Diesel stored in the backup generator fuel storage tank and not moved on-site. Generator located on impervious base. Same to be relocated as necessary to facilitate proposed developments. Other such producrts to be stored in bunded area.

Potential For Contamination of soil/groundwater – Risk from failure of fuel storage tank, and/or filling operations.

Source – receptor (soil/water) pathway, blocked due to provision of impervious concrete base. No evidence of any spillage /contamination.

Decision - Exclude from further consideration

3.0 CONCLUSIONS

The conclusion on the completion of Stages 1 – 3 of this baseline screening report is that it is considered that a baseline report is not required,

- due to the quantities of the hazardous substances used at the installation, and characteristics of the site there is no significant possibility for contamination of soil or groundwater,

and

- In case of this existing installation, where measures are taken which make it improbable in practice that contamination of soil or groundwater occurs.

Paraic Fay
BAgrSc
CLW Environmental Planners

14/11/17
Date

Attachment I5

BAT Conclusions Document

Draft Agency Guidance for licence applicants for IED class 6.1/6.2 Installations, to be read in consultation with BAT Conclusions for Intensive Rearing of Poultry or Pigs

READ ME:

The *'Commission Implementing Decision (EU) 2017/302 of **15 February 2017** establishing best available techniques (BAT) conclusions under Directive 2010/75/EU of the European Parliament and of the Council, for the intensive rearing of Poultry or Pigs'* is published and the BAT Conclusions are finalised and address installations for the intensive rearing of poultry and pigs.

To help identify compliance status, for each BAT, in the following table, please state whether it is applicable to your installation and describe how each BAT applies or not to your installation and provide information on your compliance with the requirement.

It may be useful to first identify all the **'Not Applicable'** BATs and provide precise reasons in the **'Applicability Assessment'** box as to why you consider this particular BAT is not applicable at/to your entire installation having regard to the scope/ definitions, general considerations and the information on applicability. (You may need to make reference to relevant processes/activities or individual emission points to provide a comprehensive response).

Please use the '**Scope**' box to describe the relevant activities/processes that come within the scope of this CID.

For each applicable BAT, in the following table, state the status; **'Yes'** or **'Will be'** as appropriate in the '**State whether it is in place or state schedule for implementation**' box. The use of each of these terms is described below.

Information on compliance in the '**Applicability Assessment**' box should include, where applicable, the following:

(i) Identification of the relevant process/ activity or individual emission points that the BAT requirement applies to at your installation;

(ii) Where BAT is to use one or a combination of listed techniques, specify the technique(s) implemented/proposed at your installation to achieve the BAT; and

(iii) A comment on how the requirements are being met or will be met, e.g., a description of the technology/operational controls/management proposed to meet the requirements.

Use of terms:

(a) '**Yes**' – To be entered where the installation is currently compliant with this BAT requirement.

(b) '**Will be**' – To be entered where a further technique is required to be installed to achieve compliance with the BAT requirement. In this case you must also specify the date by which the installation will comply with the BAT Conclusion requirement.

BAT Conclusions for Intensive Rearing of Poultry or Pigs (Feb 2017)

The full and complete final BAT Conclusions Document for Intensive Rearing of Poultry or Pigs (Feb 2017) is available at the EIPPC Bureau website: http://eippcb.jrc.ec.europa.eu/reference/

The following guidance in tabular form, must be read in conjunction with the above referenced document.

SCOPE
Identify here the particular processes and activities at the installation that come within the scope of the BAT conclusions for the Intensive Rearing of Poultry or Pigs CID document. Application of organic fertiliser to land outside the installation boundary will not be controlled by conditions of an IED licence, however the CID document for Intensive Rearing of Poultry or Pigs (2017) includes BAT conclusions on techniques for landspreading of manure.

BAT Conclusions ***Important:*** ***(CID should be read (full text) in conjunction with this table)***	**Applicability Assessment ((1)describe whether or not it applies, stating clearly the precise reasons and (2) how the technique applies or not to your installation)**	**State whether it is in place or state schedule for implementation**
Note: This single document addresses both pig installations and poultry installations. ***BAT 1-29 below apply to both pig and poultry sites (blank font below)*** ***BAT 30 applies to ammonia emissions from an animal house for pigs (olive green font/shading below)*** ***BAT 31-34 applies to ammonia emissions from poultry houses (red font/shading below)***		

Section 1 General BAT Conclusions *(BAT 1-29 below apply to both pig and poultry sites)*	Applicability Assessment ((1)describe whether or not it applies, stating clearly the precise reasons and (2) how the technique applies or not to your installation)	State whether it is in place or state schedule for implementation
BAT 1. BAT is to implement and adhere to an environmental management system (EMS) that incorporates all of the features as detailed in **(Section 1.1 Environmental Management System -EMS)**	Yes – Scope and Nature of EMS will be related to nature, scale and complexity of farm and range of potential environmental impacts.	To be implemented in line with Licence requirements.
BAT 2. In order to prevent or reduce the environmental impact and improve overall performance, BAT is to use all the techniques provided. **(Section 1.2 Good housekeeping)**	Yes	To be implemented in line with Licence requirements.
BAT 3. In order to reduce total nitrogen excreted and consequently ammonia emissions while meeting the nutritional needs of the animals, BAT is to use a diet formulation and nutritional strategy which includes one or a combination of the techniques given **(Section 1.3 Nutritional Management).**	Yes BAT 3A and 3B – Generally applicable and in practice on site. BAT 3 C and 3D– Applicable when economically viable.	To be implemented in line with Licence requirements.

	Technique (1)	Applicability
a	Reduce the crude protein content by using an N-balanced diet based on the energy needs and digestible amino acids.	Generally applicable.
b	Multiphase feeding with a diet formulation adapted to the specific requirements of the production period.	Generally applicable.
c	Addition of controlled amounts of essential amino acids to a low crude protein diet.	Applicability may be restricted when low-protein feedstuffs are not economically available. Synthetic amino acids are not applicable to organic livestock production.
d	Use of authorised feed additives which reduce the total nitrogen excreted.	Generally applicable.

(1) A description of the techniques is given in Section 4.10.1. Information on the effectiveness of the techniques for ammonia emission reduction can be taken from recognised European or international guidance e.g. UNECE guidance document on 'Options for ammonia mitigation'.

Table 1.1

BAT-associated total nitrogen excreted

Parameter	Animal category	BAT-associated total nitrogen excreted (1) (2) (kg N excreted/animal place/year)
Total nitrogen excreted, expressed as N.	Weaners	1,5-4,0
	Fattening pigs	7,0-13,0
	Sows (including piglets)	17,0-30,0
	Laying hens	0,4-0,8
	Broilers	0,2-0,6
	Ducks	0,4-0,8
	Turkeys	1,0-2,3 (3)

(1) The lower end of the range can be achieved by using a combination of techniques.
(2) The BAT-associated total nitrogen excreted is not applicable to pullets or breeders, for all poultry species.
(3) The upper end of the range is associated with the rearing of male turkeys.

The associated monitoring is in BAT 24. The BAT-associated total nitrogen excreted levels may not be applicable to organic livestock production and to the rearing of poultry species not indicated above.

BAT 4. In order to reduce the total phosphorus excreted, while meeting the nutritional needs of the animals, BAT is to use a diet formulation and a nutritional strategy which includes one or a combination of the techniques given **(Section 1.3 Nutritional Management)**	Yes BAT 4A and 4B – Generally applicable. BAT 4 C– Applicable when economically viable and available.	To be implemented in line with Licence requirements.

	Technique (1)	Applicability
a	Multiphase feeding with a diet formulation adapted to the specific requirements of the production period.	Generally applicable.
b	Use of authorised feed additives which reduce the total phosphorus excreted (e.g. phytase).	Phytase may not be applicable in case of organic livestock production.
c	Use of highly digestible inorganic phosphates for the partial replacement of conventional sources of phosphorus in the feed.	Generally applicable within the constraints associated with the availability of highly digestible inorganic phosphates.

(1) A description of the techniques is given in Section 4.10.2.

Table 1.2

BAT-associated total phosphorus excreted

Parameter	Animal category	BAT-associated total phosphorus excreted (1) (2) (kg P_2O_5 excreted/animal place/year)
Total phosphorus excreted, expressed as P_2O_5.	Weaners	1,2-2,2
	Fattening pigs	3,5-5,4
	Sows (including piglets)	9,0-15,0
	Laying hens	0,10-0,45
	Broilers	0,05-0,25
	Turkeys	0,15-1,0

(1) The lower end of the range can be achieved by using a combination of techniques.
(2) The BAT-associated total phosphorus excreted is not applicable to pullets or breeders, for all poultry species.

The associated monitoring is in BAT 24. The BAT-associated total phosphorus excreted levels may not be applicable to organic livestock production and to the rearing of poultry species not indicated above.

BAT 5. **In order to use water efficiently, BAT is to use a combination of the techniques given (Section 1.4 Efficient Use of Water),**	**Yes** **BAT 5A-E – Generally applicable.** **BAT 5F– Not Applicable due to bio-security risks**	**To be implemented in line with Licence requirements.**

	Technique	Applicability
a	Keep a record of water use.	Generally applicable.
b	Detect and repair water leakages.	Generally applicable.
c	Use high-pressure cleaners for cleaning animal housing and equipment.	Not applicable to poultry plants using dry cleaning systems.
d	Select and use suitable equipment (e.g. nipple drinkers, round drinkers, water troughs) for the specific animal category while ensuring water availability (*ad libitum*).	Generally applicable.
e	Verify and (if necessary) adjust on a regular basis the calibration of the drinking water equipment.	Generally applicable.
f	Reuse uncontaminated rainwater as cleaning water.	May not be applicable to existing farms, due to high costs. Applicability may be restricted by biosecurity risks.

	Technique	Applicability
a	Keep a record of water use.	Generally applicable.
b	Detect and repair water leakages.	Generally applicable.
c	Use high-pressure cleaners for cleaning animal housing and equipment.	Not applicable to poultry plants using dry cleaning systems.
d	Select and use suitable equipment (e.g. nipple drinkers, round drinkers, water troughs) for the specific animal category while ensuring water availability (*ad libitum*).	Generally applicable.
e	Verify and (if necessary) adjust on a regular basis the calibration of the drinking water equipment.	Generally applicable.
f	Reuse uncontaminated rainwater as cleaning water.	May not be applicable to existing farms, due to high costs. Applicability may be restricted by biosecurity risks.

BAT 6.
In order to reduce the generation of waste water, BAT is to use a combination of the techniques given (Section 1.5 Emissions from Wastewater).

	Technique (1)	Applicability
a	Keep the fouled yard areas as small as possible.	Generally applicable.
b	Minimise use of water.	Generally applicable.
c	Segregate uncontaminated rainwater from waste water streams that require treatment.	May not be applicable to existing farms.

(1) A description of the technique is given in Section 4.1.

Yes
BAT 6A and 6B – Generally applicable

To be implemented in line with Licence requirements.

BAT 7. In order to reduce emissions to water from waste water, BAT is to use one or a combination of the techniques given **(Section 1.5 Emissions from Wastewater).** (1) Drain waste water to a dedicated container or to a slurry store. — Generally applicable. (2) Treat waste water. — Generally applicable. (3) Landspreading of waste water e.g. by using an irrigation system such as sprinkler, travelling irrigator, tanker, umbilical injector. — Applicability may be restricted due to the limited availability of suitable land adjacent to the farm. Applicable only for waste water with a proven low level of contamination.	Yes BAT 7A and 7C – Generally applicable. BAT 7B– Not Applicable	To be implemented in line with Licence requirements.
BAT 8. In order to use energy efficiently in a farm, BAT is to use a combination of the techniques given. **(Section 1.6 Efficient use of Energy).** (1) High efficiency heating/cooling and ventilation systems. — May not be applicable to existing plants. (2) Optimisation of heating/cooling and ventilation systems and management, especially where air cleaning systems are used. — Generally applicable. (3) Insulation of the walls, floors and/or ceilings of animal housing. — May not be applicable to plants using natural ventilation. Insulation may not be applicable to existing plants due to structural restrictions. (4) Use of energy-efficient lighting. — Generally applicable.	Yes	To be implemented in line with Licence requirements, and/or during construction / refurbishment / replacement works.

e	Use of heat exchangers. One of the following systems may be used: 1. air-air, 2. air-water, 3. air-ground.	Air-ground heat exchangers are only applicable when there is available space due to the need for a large soil surface.		
f	Use of heat pumps for heat recovery.	The applicability of heat pumps based on geothermal heat recovery is limited when using horizontal pipes due to the need for space availability.		
g	Heat recovery with heated and cooled littered floor (combideck system).	Not applicable to pig plants. Applicability depends on the possibility to install closed underground storage for the circulating water.		
h	Apply natural ventilation.	Not applicable to plants with a centralised ventilation system. In pig plants, this may not be applicable to: — housing systems with littered floors in warm climates; — housing systems without littered floors or without covered, insulated boxes (e.g. kennels) in cold climates. In poultry plants, this may not be applicable: — during the initial stage of rearing, apart from duck production; — due to extreme climate conditions.		
BAT 9. In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up and implement a noise management plan, as part of the environmental management system (see BAT 1), that includes specified elements **(Section 1.7 Noise emissions)**. Note: BAT 9 is only applicable to cases where a noise nuisance at sensitive receptors is expected and/or has been substantiated.			**Not Applicable – Noise nuisance at noise sensitive locations not anticipated.**	

<table>
<tr><td>BAT 10.
In order to prevent, or where that is not practicable, to reduce noise emissions, BAT is to use <u>one or a combination</u> of the techniques given. (Section 1.7 Noise emissions).</td><td>BAT 10 (C) applicable.</td><td>To be implemented in line with Licence requirements.</td></tr>
<tr><td>BAT 11.
In order to reduce dust emissions from each animal house, BAT is to use <u>one or a combination</u> of the techniques given (Section 1.8 Dust emissions).
<table>
<tr><th></th><th>Technique (1)</th><th>Applicability</th></tr>
<tr><td>a</td><td>Reduce dust generation inside livestock buildings. For this purpose, a combination of the following techniques may be used:</td><td></td></tr>
<tr><td>1.</td><td>1. Use coarser litter material (e.g. long straw or wood shavings rather than chopped straw);</td><td>Long straw is not applicable to slurry-based systems.</td></tr>
<tr><td></td><td>2. Apply fresh litter using a low-dust littering technique (e.g. by hand);</td><td>Generally applicable.</td></tr>
<tr><td></td><td>3. Apply ad libitum feeding;</td><td>Generally applicable.</td></tr>
<tr><td></td><td>4. Use moist feed, pelleted feed or add oily raw materials or binders in dry feed systems;</td><td>Generally applicable.</td></tr>
<tr><td></td><td>5. Equip dry feed stores which are filled pneumatically with dust separators;</td><td>Generally applicable.</td></tr>
<tr><td></td><td>6. Design and operate the ventilation system with low air speed within the house.</td><td>Applicability may be limited by animal welfare considerations.</td></tr>
</table>
</td><td>BAT 11 a 1.3 – 1.4 applicable</td><td>To be implemented in line with Licence requirements.</td></tr>
</table>

b	Reduce dust concentration inside housing by applying one of the following techniques:			
	1. Water fogging;	Applicability may be restricted by the animal sensation of thermal decrease during fogging, in particular at sensitive stages of the animal's life, and/or for cold and humid climates. Applicability may be also restricted for solid manure systems at the end of the rearing period due to high ammonia emissions.		
	2. Oil spraying;	Only applicable to poultry plants with birds older than around 21 days. The applicability to plants for laying hens may be limited due to the risk of contamination of the equipment present in the shed.		
	3. Ionisation.	May not be applicable to pig plants or to existing poultry plants due to technical and/or economic reasons.		

c	Treatment of exhaust air by an air cleaning system, such as:			
	1. Water trap;	Only applicable to plants with a tunnel ventilation system.		
	2. Dry filter;	Only applicable to poultry plants with a tunnel ventilation system.		
	3. Water scrubber;	This technique may not be generally applicable due to the high implementation cost.		
	4. Wet acid scrubber;	Applicable to existing plants only where a centralised ventilation system is used.		
	5. Bioscrubber (or biotrickling filter);			
	6. Two-stage or three-stage air cleaning system;			
	7. Biofilter.	Only applicable to slurry-based plants. A sufficient area outside the animal house is needed to accommodate the filter packages. This technique may not be generally applicable due to the high implementation cost. Applicable to existing plants only where a centralised ventilation system is used.		
BAT 12. In order to prevent, or where that is not practicable, to reduce odour emissions from a farm, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes specified elements (**Section 1.9 Odour emissions**). Note: BAT 12 is only applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.			Not Applicable – Odour nuisance at sensitive locations not anticipated.	

BAT 13. In order to prevent or, where that is not practicable, to reduce odour emissions and/or odour impact from a farm, BAT is to use a combination of the techniques given **(Section 1.9 Odour emissions).**	BAT 13 B, C & E (Or parts thereof applicable • No spreading of organic fertiliser undertaken on-site. Existing farm – no complaints.	To be implemented in line with Licence requirements.

	Technique (1)	Applicability
a	Ensure adequate distances between the farm/plant and the sensitive receptors.	May not be generally applicable to existing farms/plants.
b	Use a housing system which implements one or a combination of the following principles: — keeping the animals and the surfaces dry and clean (e.g. avoid feed spillages, avoid dung in lying areas of partly slatted floors); — reducing the emitting surface of manure (e.g. use metal or plastic slats, channels with a reduced exposed manure surface); — removing manure frequently to an external (covered) manure store; — reducing the temperature of the manure (e.g. by slurry cooling) and of the indoor environment; — decreasing the air flow and velocity over the manure surface; — keeping the litter dry and under aerobic conditions in litter-based systems.	Decreasing the temperature of the indoor environment, the air flow and the velocity may not be applicable due to animal welfare considerations. Slurry removal by flushing is not applicable to pig farms located close to sensitive receptors due to odour peaks. See applicability for animal housing in BAT 30, BAT 31, BAT 32, BAT 33 and BAT 34.

c	Optimise the discharge conditions of exhaust air from the animal house by using one or a combination of the following techniques: — increasing the outlet height (e.g. exhaust air above roof level, stacks, divert air exhaust through the ridge instead of through the low part of the walls); — increasing the vertical outlet ventilation velocity; — effective placement of external barriers to create turbulence in the outgoing air flow (e.g. vegetation); — adding deflector covers in exhaust apertures located in low parts of walls in order to divert exhaust air towards the ground; — dispersing the exhaust air at the housing side which faces away from the sensitive receptor; — aligning the ridge axis of a naturally ventilated building transversally to the prevailing wind direction.	Alignment of the ridge axis is not applicable to existing plants.		

d	Use an air cleaning system, such as: 1. Bioscrubber (or biotrickling filter); 2. Biofilter; 3. Two-stage or three-stage air cleaning system.	This technique may not be generally applicable due to the high implementation cost. Applicable to existing plants only where a centralised ventilation system is used. A biofilter is only applicable to slurry-based plants. For a biofilter, a sufficient area outside the animal house is needed to accommodate the filter packages.		
e	Use one or a combination of the following techniques for storage of manure:			
	1. Cover slurry or solid manure during storage;	See applicability of BAT 16.b for slurry. See applicability of BAT 14.b for solid manure.		
	2. Locate the store taking into account the general wind direction and/or adopt measures to reduce wind speed around and above the store (e.g. trees, natural barriers);	Generally applicable.		
	3. Minimise stirring of slurry.	Generally applicable.		

f	Process manure with one of the following techniques in order to minimise odour emissions during (or prior to) landspreading:	
	1. Aerobic digestion (aeration) of slurry;	See applicability of BAT 19.d.
	2. Compost solid manure;	See applicability of BAT 19.f.
	3. Anaerobic digestion.	See applicability of BAT 19.b.
g	Use one or a combination of the following techniques for manure landspreading:	
	1. Band spreader, shallow injector or deep injector for slurry landspreading;	See applicability of BAT 21.b, BAT 21.c or BAT 21.d.
	2. Incorporate manure as soon as possible.	See applicability of BAT 22.

<table>
<tr>
<td>BAT 14
In order to reduce ammonia emissions to air from the storage of solid manure, BAT is to use one or a combination of the techniques given (Section 1.10 Emissions from solid manure storage).
<table>
<tr><th></th><th>Technique (1)</th><th>Applicability</th></tr>
<tr><td>a</td><td>Reduce the ratio between the emitting surface area and the volume of the solid manure heap.</td><td>Generally applicable.</td></tr>
<tr><td>b</td><td>Cover solid manure heaps.</td><td>Generally applicable when solid manure is dried or pre-dried in animal housing. May not be applicable to not dried solid manure in case of frequent addition to the heap.</td></tr>
<tr><td>c</td><td>Store dried solid manure in a barn.</td><td>Generally applicable.</td></tr>
</table>
</td>
<td>Not Applicable – No on site manure store.</td>
<td>To be implemented in line with Licence requirements.</td>
</tr>
<tr>
<td>BAT 15
In order to prevent, or where that is not practicable, to reduce emissions to soil and water from the storage of solid manure, BAT is to use a combination of the techniques given (Section 1.10 Emissions from solid manure storage).</td>
<td>Not Applicable – No on site manure store.</td>
<td>To be implemented in line with Licence requirements.</td>
</tr>
</table>

	Technique (1)	Applicability		
a	Store dried solid manure in a barn.	Generally applicable		
b	Use a concrete silo for storage of solid manure.	Generally applicable.		
c	Store solid manure on solid impermeable floor equipped with a drainage system and a collection tank for the run-off.	Generally applicable.		
d	Select a storage facility with a sufficient capacity to hold the solid manure during periods in which landspreading is not possible.	Generally applicable.		
e	Store solid manure in field heaps placed away from surface and/or underground watercourses which liquid run-off might enter.	Only applicable to temporary field heaps which change location each year.		

BAT 16.
In order to reduce ammonia emissions to air from a slurry store, BAT is to use a combination of the techniques given. **(Section 1.11 Emissions from slurry storage).**

	Technique (1)	Applicability	Not Applicable – No Ancillary Slurry Storage	
a	Appropriate design and management of the slurry store by using a combination of the following techniques:			

	1. Reduce the ratio between the emitting surface area and the volume of the slurry store;	May not be generally applicable to existing stores. Excessively high slurry stores may not be applicable due to increased costs and safety risks.		
	2. Reduce wind velocity and air exchange on the slurry surface by operating the store at a lower level of fill;	May not be generally applicable to existing stores.		
	3. Minimise stirring of slurry.	Generally applicable.		
b	Cover the slurry store. For this purpose, one of the following techniques may be used:			
	1. Rigid cover;	May not be applicable to existing plants due to economic considerations and structural limitations to withstand the extra load.		
	2. Flexible covers;	Flexible covers are not applicable to areas where prevailing weather conditions can compromise their structure.		

	3. Floating covers such as: — plastic pellets; — light bulk materials; — floating flexible covers; — geometrical plastic tiles; — air-inflated cover; — natural crust; — straw.	The use of plastic pellets, light bulk materials and geometrical plastic tiles is not applicable to naturally crusting slurries. Agitation of the slurry during stirring, filling and emptying may preclude the use of some floating materials which may cause sedimentation or blockages in the pumps. Natural crust formation may not be applicable to cold climates and/or to slurry with low dry matter content. Natural crust is not applicable to stores where stirring, filling and/or discharging of slurry renders the natural crust unstable.		
c	Slurry acidification.	Generally applicable.		
BAT 17. In order to reduce ammonia emissions to air from an earth-banked slurry store (lagoon), BAT is to use a combination of the techniques given (**Section 1.11 Emissions from slurry storage**).			**Applicable (All or part)**	**To be incorporated where applicable into future development works**

	Technique (*)	Applicability		
a	Minimise stirring of the slurry.	Generally applicable.		
b	Cover the earth-banked slurry store (lagoon) with a flexible and/or floating cover such as: — flexible plastic sheets; — light bulk materials; — natural crust; — straw.	Plastic sheets may not be applicable to large existing lagoons due to structural reasons. Straw and light bulk materials may not be applicable to large lagoons where wind drift does not permit the lagoon surface to be kept fully covered. The use of light bulk materials is not applicable to naturally crusting slurries. Agitation of the slurry during stirring, filling and emptying may preclude the use of some floating materials which may cause sedimentation or blockages in the pumps. Natural crust formation may not be applicable to cold climates and/or to slurry with low dry matter content. Natural crust is not applicable to lagoons where stirring, filling and/or discharging of slurry renders the natural crust unstable.		
BAT 18. **In order to prevent emissions to soil and water from slurry collection, piping, and from a store and/or an earth-banked storage (lagoon), BAT is to use a combination of the techniques given (Section 1.11 Emissions from slurry storage).**			**Applicable (IN part)**	**To be implemented in sew development.**

	Technique (1)	Applicability		
a	Use stores that are able to withstand mechanical, chemical and thermal influences.	Generally applicable.		
b	Select a storage facility with a sufficient capacity to hold the slurry during periods in which land-spreading is not possible.	Generally applicable.		
c	Construct leak-proof facilities and equipment for collection and transfer of slurry (e.g. pits, channels, drains, pump stations).	Generally applicable.		
d	Store slurry in earth-banked stores (lagoons) with an impermeable base and walls e.g. with clay or plastic lining (or double-lined).	Generally applicable to lagoons.		
e	Install a leakage detection system, e.g. consisting of a geomembrane, a drainage layer and a drainage pipe system.	Only applicable to new plants.		
f	Check structural integrity of stores at least once every year.	Generally applicable.		
BAT 19. If on-farm processing of manure is used, in order to reduce emissions of nitrogen, phosphorus, odour and microbial pathogens to air and water and facilitate manure			Not Applicable – No On Farm Processing	

storage and/or landspreading, BAT is to process the manure by applying one or a combination of the techniques (**Section 1.12 On Farm processing of manure)**

	Technique (1)	Applicability
a	Mechanical separation of slurry. This includes e.g.: Screw press separator; — Decanter-centrifuge separator; — Coagulation-Flocculation; — Separation by sieves; — Filter pressing.	Only applicable when: — a reduction of nitrogen and phosphorus content is needed due to limited available land for manure application; — manure cannot be transported for landspreading at a reasonable cost. The use of polyacrylamide as a flocculant may not be applicable due to the risk of acrylamide formation.
b	Anaerobic digestion of manure in a biogas installation.	This technique may not be generally applicable due to the high implementation cost.
c	Use of an external tunnel for manure drying.	Only applicable to manure from plants for laying hens. Not applicable to existing plants without manure belts.
d	Aerobic digestion (aeration) of slurry.	Only applicable when pathogen and odour reduction is important prior to landspreading. In cold climates, it may be difficult to maintain the required level of aeration during winter.
e	Nitrification-denitrification of slurry.	Not applicable to new plants/farms. Only applicable to existing plants/farms when the removal of nitrogen is necessary due to limited available land for manure application.
f	Composting of solid manure.	Only applicable when: — manure cannot be transported for landspreading at a reasonable cost; — pathogen and odour reduction is important prior to landspreading; — there is enough space in the farm for windrows to be established.

BAT 20. In order to prevent or, where that is not practicable, to reduce emissions of	**Not Applicable – No manure spread on site.**	

nitrogen, phosphorus and microbial pathogens to soil and water from manure landspreading, BAT is to use all the techniques given **(Section 1.13 Manure landspreading)**.

	Technique
a	Assess the manure receiving land to identify risks of run-off, taking into account: — soil type, conditions and slope of the field; — climatic conditions; — field drainage and irrigation; — crop rotations; — water resources and water protected zones.
b	Keep sufficient distance between manure spreading fields (leaving an untreated strip of land) and: 1. areas where there is a risk of run-off to water such as watercourses, springs, boreholes, etc.; 2. neighbouring properties (including hedges).
c	Avoid manure spreading when the risk of run-off can be significant. In particular, manure is not applied when: 1. the field is flooded, frozen or snow-covered; 2. soil conditions (e.g. water saturation or compaction) in combination with the slope of the field and/or field drainage are such that the risk of run-off or drainage is high; 3. run-off can be anticipated according to expected rainfall events.
d	Adapt the manure landspreading rate taking into account the nitrogen and phosphorus content of the manure and taking into account the characteristics of the soil (e.g. nutrient content), the seasonal crop requirements and weather or field conditions that could cause run-off.
e	Synchronize manure landspreading with the nutrient demand of crops.

f	Check the spreading fields at regular intervals to identify any sign of run-off and properly respond when necessary.		
g	Ensure adequate access to the manure store and that loading of manure can be done effectively without spillage.		
h	Check that machinery for manure landspreading is in good working order and set at the proper application rate.		

BAT 21.

In order to reduce ammonia emissions to air from slurry landspreading, BAT is to use one or a combination of the techniques given (**Section 1.13 Manure landspreading**).

Not Applicable – No manure spread on site.

	Technique (1)	Applicability
a	Slurry dilution, followed by techniques such as low-pressure water irrigation system.	Not applicable to crops grown to be eaten raw due to the risk of contamination. Not applicable when the soil type does not allow rapid infiltration of dilute slurry into the soil. Not applicable when crops do not require irrigation. Applicable to fields easily connected to the farm by pipework.
b	Band spreader, by applying one of the following techniques: 1. Trailing hose; 2. Trailing shoe.	Applicability may be limited when the straw content of the slurry is too high or when the dry matter content of the slurry is higher than 10 %. Trailing shoe is not applicable to growing solid-seeded arable crops.

c	Shallow injector (open slot).	Not applicable on stony, shallow or compacted soil where it is difficult to achieve a uniform penetration. Applicability may be limited where crops may be damaged by machinery.		
d	Deep injector (closed slot).	Not applicable on stony, shallow or compacted soil where it is difficult to achieve a uniform penetration and an effective slit closure. Not applicable during the vegetation of the crops. Not applicable on grassland, unless changing to arable land or when reseeding.		
e	Slurry acidification.	Generally applicable.		

BAT 22.
In order to reduce ammonia emissions to air from manure landspreading, BAT is to incorporate the manure into the soil as soon as possible **(Section 1.13 Manure landspreading).**
See also Table 1.3 of CID

Table 1.3

BAT-associated time delay between manure landspreading and incorporation into the soil

Parameter	BAT-associated time delay between manure landspreading and incorporation into the soil (hours)
Time	0 (1)-4 (2)

(1) The lower end of the range corresponds to immediate incorporation.
(2) The upper end of the range can be up to 12 hours when conditions are not favourable for a faster incorporation, e.g. when human and machinery resources are not economically available.

Note Applicability factors.

Not Applicable – No manure spread on site.

BAT 23.
In order to reduce ammonia emissions from the whole production process for the rearing of pigs (including sows) or poultry, BAT is to estimate or calculate the

BAT 23

To be reviewed in line with Licence conditions and subject to consultation with

<table>
<tr><td>reduction of ammonia emissions from the whole production process using the BAT implemented on the farm (Section 1.14 Emissions from the whole production process).</td><td></td><td>the Poultry Sector and the Agency.</td></tr>
<tr><td>BAT 24.
BAT is to monitor the total nitrogen and total phosphorus excreted in manure using <u>one</u> of the specified techniques with at least the frequency given (Section 1.15 Monitoring of emissions and process parameters).
<table><tr><th></th><th>Technique (1)</th><th>Frequency</th><th>Applicability</th></tr><tr><td>a</td><td>Calculation by using a mass balance of nitrogen and phosphorus based on the feed intake, crude protein content of the diet, total phosphorus and animal performance.</td><td>Once every year for each animal category.</td><td>Generally applicable.</td></tr><tr><td>b</td><td>Estimation by using manure analysis for total nitrogen and total phosphorus content.</td><td></td><td></td></tr></table>See also Tables 1.1 & 1.2 of CID</td><td>BAT 24 – Applicable technique to be reviewed and agreed with Agency within 12 months</td><td>To be reviewed in line with Licence conditions and subject to consultation with the Poultry Sector and the Agency.</td></tr>
<tr><td>BAT 25
BAT is to monitor ammonia emissions to air using <u>one</u> of the specified techniques with at least the frequency given (Section 1.15 Monitoring of emissions and process parameters).</td><td>BAT 25 C – Applicable - To be completed as part of PRTR Returns</td><td>To Be implemented in line with Licence conditions.</td></tr>
</table>

	Technique (1)	Frequency	Applicability
a	Estimation by using a mass balance based on the excretion and the total (or total ammoniacal) nitrogen present at each manure management stage.	Once every year for each animal category.	Generally applicable.
b	Calculation by measuring the ammonia concentration and the ventilation rate using ISO, national or international standard methods or other methods ensuring data of an equivalent scientific quality.	Every time there are significant changes to at least one of the following parameters: (a) the type of livestock reared at the farm; (b) the housing system.	Only applicable to emissions from each animal house. Not applicable to plants with an air cleaning system installed. In this case, BAT 28 applies. Due to the cost of measurements, this technique may not be generally applicable.
c	Estimation by using emission factors.	Once every year for each animal category.	Generally applicable.

See also Table 2.1 of CID

Table 2.1

BAT-AEL for ammonia emissions to air from each pig house

Parameter	Animal category	BAT-AEL (1) (kg NH_3/animal place/year)
Ammonia expressed as NH_3	Mating and gestating sows	0,2-2,7 (2) (3)
	Farrowing sows (including piglets) in crates	0,4-5,6 (4)
	Weaners	0,03-0,53 (5) (6)
	Fattening pigs	0,1-2,6 (7) (8)

(1) The lower end of the range is associated with the use of an air cleaning system.
(2) For existing plants using a deep pit in combination with nutritional management techniques, the upper end of the BAT-AEL is 4,0 kg NH_3/animal place/year.
(3) For plants using BAT 30.a6, 30.a7 or 30.a11, the upper end of the BAT-AEL is 5,2 kg NH_3/animal place/year.
(4) For existing plants using BAT 30.a0 in combination with nutritional management techniques, the upper end of the BAT-AEL is 7,5 kg NH_3/animal place/year.
(5) For existing plants using a deep pit in combination with nutritional management techniques, the upper end of the BAT-AEL is 0,7 kg NH_3/animal place/year.
(6) For plants using BAT 30.a6, 30.a7 or 30.a8, the upper end of the BAT-AEL is 0,7 kg NH_3/animal place/year.
(7) For existing plants using a deep pit in combination with nutritional management techniques, the upper end of the BAT-AEL is 3,6 kg NH_3/animal place/year.
(8) For plants using BAT 30.a6, 30.a7, 30.a8 or 30.a16, the upper end of the BAT-AEL is 5,65 kg NH_3/animal place/year.

The BAT-AELs may not be applicable to organic livestock production. The associated monitoring is in BAT 25.

BAT 26. BAT is to periodically monitor odour emissions to air **(Section 1.15 Monitoring of emissions and process parameters).**	**Not Applicable – Odour nuisance at sensitive locations not anticipated.**	

Odour emissions can be monitored by using: — EN standards (e.g. by using dynamic olfactometry according to EN 13725 in order to determine odour concentration). — When applying alternative methods for which no EN standards are available (e.g. measurement/estimation of odour exposure, estimation of odour impact), ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality can be used. **Note: BAT 26 is only applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.**		
BAT 27. **BAT is to monitor dust emissions from each animal house using <u>one</u> of the specified techniques with at least the frequency given (Section 1.15 Monitoring of emissions and process parameters).**	**Not Applicable – Cost prohibitive**	

	Technique (1)	Frequency	Applicability
a	Calculation by measuring the dust concentration and the ventilation rate using EN standard methods or other methods (ISO, national or international) ensuring data of an equivalent scientific quality.	Once every year.	Only applicable to dust emissions from each animal house. Not applicable to plants with an air cleaning system installed. In this case, BAT 28 applies. Due to the cost of measurements, this technique may not be generally applicable.
b	Estimation by using emission factors.	Once every year.	Due to the cost of establishing emissions factors, this technique may not be generally applicable.

BAT 28. **BAT 28 is to monitor ammonia, dust and/or odour emissions from each animal house equipped with an air cleaning system by using <u>all of</u> the specified techniques with at least the frequency given. (Section 1.15 Monitoring of emissions and process parameters).**	**Not Applicable – No air cleaning system.**	

	Technique (1)	Frequency	Applicability		
a	Verification of the air cleaning system performance by measuring ammonia, odour and/or dust under practical farm conditions and according to a prescribed measurement protocol and using EN standard methods or other methods (ISO, national or international) ensuring data of an equivalent scientific quality.	Once	Not applicable if the air cleaning system has been verified in combination with a similar housing system and operating conditions.		
b	Control of the effective function of the air cleaning system (e.g. by continuously recording operational parameters or using alarm systems).	Daily	Generally applicable.		

BAT 29.

BAT is to monitor the specified process parameters at least once every year. (Section 1.15 Monitoring of emissions and process parameters).

	Parameter	Description	Applicability	**Applicable** **To be completed as per AER Returns**	**To be implemented in line with licence conditions.**
a	Water consumption.	Recording using e.g. suitable meters or invoices. The main water-consuming processes in animal houses (cleaning, feeding, etc.) can be monitored separately.	Monitoring the main water-consuming processes separately may not be applicable to existing farms, depending on the configuration of the water supply network.		

b	Electric energy consumption.	Recording using e.g. suitable meters or invoices. Electricity consumption of animal houses is monitored separately from other plants in the farm. The main energy-consuming processes in animal houses (heating, ventilation, lighting, etc.) can be monitored separately.	Monitoring the main energy-consuming processes separately may not be applicable to existing farms, depending on the configuration of the energy supply network.		
c	Fuel consumption.	Recording using e.g. suitable meters or invoices.	Generally applicable.		
d	Number of incoming and outgoing animals, including births and deaths when relevant.	Recording using e.g. existing registers.			
e	Feed consumption.	Recording using e.g. invoices or existing registers.			
f	Manure generation.	Recording using e.g. existing registers.			

Section 2. BAT Conclusions for Intensive Rearing of Pigs *(BAT 30 below applies to pig sites only)*		
BAT 30. In order to reduce ammonia emissions to air from each pig house, BAT is to use one or a combination of the techniques given. (Section 2.1 Ammonia emissions from pig houses).	**Applicable in part – Nutritional Management Techniques**	**To be implemented**

	Technique (1)	Animal category	Applicability
a	One of the following techniques, which apply one or a combination of the following principles: (i) reduce the ammonia emitting surface; (ii) increase the frequency of slurry (manure) removal to external storage; (iii) separate urine from faeces; (iv) keep litter clean and dry..		
	0. A deep pit (in case of a fully or partly slatted floor) only if used in combination with an additional mitigation measure, e.g.: — a combination of nutritional management techniques; — air cleaning system; — pH reduction of the slurry; — slurry cooling.	All pigs	Not applicable to new plants, unless a deep pit is combined with an air cleaning system, slurry cooling and/or pH reduction of the slurry.

	Technique (1)	Animal category	Applicability
	1. A vacuum system for frequent slurry removal (in case of a fully or partly slatted floor).	All pigs	May not be generally applicable to existing plants due to technical and/or economic considerations.
	2. Slanted walls in the manure channel (in case of a fully or partly slatted floor).	All pigs	
	3. A scraper for frequent slurry removal (in case of a fully or partly slatted floor).	All pigs	
	4. Frequent slurry removal by flushing (in case of a fully or partly slatted floor).	All pigs	May not be generally applicable to existing plants due to technical and/or economic considerations. When the liquid fraction of the slurry is used for flushing, this technique may not be applicable to farms located close to sensitive receptors due to odour peaks during flushing.
	5. Reduced manure pit (in case of a partly slatted floor).	Mating and gestating sows	May not be generally applicable to existing plants due to technical and/or economic considerations.
		Fattening pigs	

6. Full litter system (in case of a solid concrete floor).	Mating and gestating sows	Solid manure systems are not applicable to new plants unless it can be justified for animal welfare reasons. May not be applicable to naturally ventilated plants located in warm climates and to existing plants with forced ventilation for weaners and fattening pigs. BAT 30.a7 may require large space availability.		
	Weaners			
	Fattening pigs			
7. Kennel/hut housing (in case of a partly slatted floor).	Mating and gestating sows			
	Weaners			
	Fattening pigs			
8. Straw flow system (in case of a solid concrete floor).	Weaners			
	Fattening pigs			
9. Convex floor and separated manure and water channels (in case of partly slatted pens).	Weaners	May not be generally applicable to existing plants due to technical and/or economic considerations.		
	Fattening pigs			

	Technique (1)	Animal category	Applicability
	10. Littered pens with combined manure generation (slurry and solid manure).	Farrowing sows	Not applicable to existing plants without solid concrete floors.
	11. Feeding/lying boxes on solid floor (in case of litter-based pens).	Mating and gestating sows	
	12. Manure pan (in case of a fully or partly slatted floor).	Farrowing sows	Generally applicable.
	13. Manure collection in water.	Weaners	May not be generally applicable to existing plants due to technical and/or economic considerations.
		Fattening pigs	
	14. V-shaped manure belts (in case of partly slatted floor).	Fattening pigs	
	15. A combination of water and manure channels (in case of a fully slatted floor).	Farrowing sows	

	16. Littered external alley (in case of a solid concrete floor).	Fattening pigs	Not applicable to cold climates. May not be generally applicable to existing plants due to technical and/or economic considerations.
b	Slurry cooling.	All pigs	Not applicable when: — heat reuse is not possible; — litter is used.
c	Use of an air cleaning system, such as: 1. Wet acid scrubber; 2. Two-stage or three-stage air cleaning system; 3. Bioscrubber (or biotrickling filter).	All pigs	May not be generally applicable due to the high implementation cost. Applicable to existing plants only where a centralised ventilation system is used.
d	Slurry acidification.	All pigs	Generally applicable.
e	Use of floating balls in the manure channel.	Fattening pigs	Not applicable to plants equipped with pits that have slanted walls and to plants that apply slurry removal by flushing.

(1) A description of the techniques is given in Sections 4.11 and 4.12.

See also Table 2.1 of CID

Table 2.1

BAT-AEL for ammonia emissions to air from each pig house

Parameter	Animal category	BAT-AEL (1) (kg NH_3/animal place/year)
Ammonia expressed as NH_3	Mating and gestating sows	0,2-2,7 (2) (3)
	Farrowing sows (including piglets) in crates	0,4-5,6 (4)
	Weaners	0,03-0,53 (5) (6)
	Fattening pigs	0,1-2,6 (7) (8)

(1) The lower end of the range is associated with the use of an air cleaning system.
(2) For existing plants using a deep pit in combination with nutritional management techniques, the upper end of the BAT-AEL is 4,0 kg NH_3/animal place/year.
(3) For plants using BAT 30.a6, 30.a7 or 30.a11, the upper end of the BAT-AEL is 5,2 kg NH_3/animal place/year.
(4) For existing plants using BAT 30.a0 in combination with nutritional management techniques, the upper end of the BAT-AEL is 7,5 kg NH_3/animal place/year.
(5) For existing plants using a deep pit in combination with nutritional management techniques, the upper end of the BAT-AEL is 0,7 kg NH_3/animal place/year.
(6) For plants using BAT 30.a6, 30.a7 or 30.a8, the upper end of the BAT-AEL is 0,7 kg NH_3/animal place/year.
(7) For existing plants using a deep pit in combination with nutritional management techniques, the upper end of the BAT-AEL is 3,6 kg NH_3/animal place/year.
(8) For plants using BAT 30.a6, 30.a7, 30.a8 or 30.a16, the upper end of the BAT-AEL is 5,65 kg NH_3/animal place/year.

The BAT-AELs may not be applicable to organic livestock production. The associated monitoring is in BAT 25.

Section 3. BAT Conclusions for Intensive Rearing of Poultry

BAT 31-34 applies to ammonia emissions from poultry houses
(Section 3.1 Ammonia emissions from poultry houses).

N/A

BAT 31.

In order to reduce ammonia emissions to air from each house for laying hens, broiler breeders or pullets, BAT is to use one or a combination of the techniques given **(Section 3.1.1 Ammonia emissions from houses for laying hens, broiler breeders or pullets).**

	Technique (1)	Applicability
a	Manure removal by belts (in case of enriched or unenriched cage systems) with at least: — one removal per week with air drying; or — two removals per week without air drying.	Enriched cage systems are not applicable to pullets and broiler breeders. Unenriched cage systems are not applicable to laying hens.
b	In case of non-cage systems:	
	0. Forced ventilation system and infrequent manure removal (in case of deep litter with a manure pit) only if used in combination with an additional mitigation measure, e.g.: — achieving a high dry matter content of the manure; — an air cleaning system.	Not applicable to new plants, unless combined with an air cleaning system.

	Technique (1)	Applicability
	1. Manure belt or scraper (in case of deep litter with a manure pit).	Applicability to existing plants may be limited by the requirement for a complete revision of the housing system.
	2. Forced air drying of manure via tubes (in case of deep litter with a manure pit)	The technique can be applied only to plants with sufficient space underneath the slats.
	3. Forced air drying of manure using perforated floor (in case of deep litter with a manure pit).	Due to high implementation costs, applicability to existing plants may be limited.
	4. Manure belts (in case of aviary).	Applicability to existing plants depends on the width of the shed.
	5. Forced drying of litter using indoor air (in case of solid floor with deep litter).	Generally applicable.
c	Use of an air cleaning system, such as: 1. Wet acid scrubber; 2. Two-stage or three-stage air cleaning system; 3. Bioscrubber (or biotrickling filter).	May not be generally applicable due to the high implementation cost. Applicable to existing plants only where a centralised ventilation system is used.

See also Table 3.1 of CID

Table 3.1

BAT-AELs for ammonia emissions to air from each house for laying hens

Parameter	Type of housing	BAT-AEL (kg NH_3/animal place/year)
Ammonia expressed as NH_3	Cage system	0,02-0,08
	Non-cage system	0,02-0,13 (1)

(1) For existing plants using a forced ventilation system and an infrequent manure removal (in case of deep litter with a manure pit), in combination with a measure achieving a high dry matter content of the manure, the upper end of the BAT-AEL is 0,25 kg NH_3/animal place/year.

The associated monitoring is in BAT 25. The BAT-AEL may not be applicable to organic livestock production.

BAT 32.

In order to reduce ammonia emissions to air from each house for broilers, BAT is to use one or a combination of the techniques given **(Section 3.1.2 Ammonia emissions from houses for broilers).**

	Technique (1)	Applicability
a	Forced ventilation and a non-leaking drinking system (in case of solid floor with deep litter).	Generally applicable.

b	Forced drying system of litter using indoor air (in case of solid floor with deep litter).	For existing plants, the applicability of forced air drying systems depends on the height of the ceiling. Forced air drying systems may not be applicable to warm climates, depending on the indoor temperature.		
c	Natural ventilation, equipped with a non-leaking drinking system (in case of solid floor with deep litter).	Natural ventilation is not applicable to plants with a centralised ventilation system. Natural ventilation may not be applicable during the initial stage of rearing of broilers and due to extreme climate conditions.		
d	Litter on manure belt and forced air drying (in case of tiered floor systems).	For existing plants, the applicability depends on the height of the side walls.		
e	Heated and cooled littered floor (in case of combi-deck systems).	For existing plants, the applicability depends on the possibility to install closed underground storage for the circulating water.		
f	Use of an air cleaning system, such as: 1. Wet acid scrubber; 2. Two-stage or three-stage air cleaning system; 3. Bioscrubber (or biotrickling filter).	May not be generally applicable due to the high implementation cost. Applicable to existing plants only where a centralised ventilation system is used.		
See also Table 3.2 of CID				

Table 3.2 **BAT-AEL for ammonia emissions to air from each house for broilers with a final weight of up to 2,5 kg** Parameter / BAT-AEL (1) (2) (kg NH_3/animal place/year) Ammonia expressed as NH_3 / 0,01-0,08 (1) The BAT-AEL may not be applicable to the following types of farming: extensive indoor, free-range, traditional free-range and free-range — total freedom, as defined in Commission Regulation (EC) No 543/2008 of 16 June 2008 laying down detailed rules for the application of Council Regulation (EC) No 1234/2007 as regards the marketing standards for poultrymeat (OJ L 157, 17.6.2008, p. 46). (2) The lower end of the range is associated with the use of an air cleaning system. The associated monitoring is in BAT 25. The BAT-AEL may not be applicable to organic livestock production.		
BAT 33. In order to reduce ammonia emissions to air from each animal house for ducks, BAT is to use one or a combination of the techniques given **(Section 3.1.3 Ammonia emissions from houses for ducks).**		
BAT 34. In order to reduce ammonia emissions to air from each animal house for turkeys, BAT is to use one or a combination of the techniques given **(Section 3.1.4 Ammonia emissions from houses for turkeys).**		

Section 4. Description of Techniques (refer to CID for full text)		
4.1 Techniques for reducing emissions from wastewater		
4.2. Techniques for efficient use of energy		
4.3. Techniques for reducing dust emissions		
4.4. Techniques for reducing odour emissions		
4.5. Techniques for reducing emissions from the storage of solid manure		
4.6. Techniques for reducing emissions from slurry storage		
4.7. Techniques for on farm manure processing		
4.8. Techniques for manure landspreading		
4.9. Techniques for monitoring		
4.10. Nutritional management		
4.11. Techniques to treat emissions to air from animal housing		
4.12. Techniques for pig houses		
4.13. Techniques for poultry housing		
4.13.1. Techniques for reducing ammonia emissions from houses for laying hens, broiler breeders or pullets		
4.13.2. Techniques for reducing ammonia emissions from broiler houses		

March 2017

Conclusions on BAT

Reference Document on Best Available Techniques for Energy Efficiency - February 2009

BAT Reference No.	BAT Statement	Applicable	Proposal
4.2.1	**BAT is to implement and adhere to an energy efficiency management system (ENEMS)**	Yes	As energy is principally used to operate the, ventilation, feeding and water supply there are over riding issues with regard to animal welfare when it comes to energy efficiency. As a significant amount of energy is used in ventilation and climate control within the house, external climatic factors will have a significant effect on the energy usage on-site. However it should be noted that a number of specific issues have been addressed in the construction of these new houses so as to ensure the highest levels of energy efficiency. A system will be established to review annual energy usage and review results.
4.2.2.2	**BAT is to identify the aspects of an installation that influence energy efficiency by carrying out an audit. It is important that an audit is coherent with a systems approach.**	Yes	Energy Audit to be completed within 12 months of the date of grant of the licence/commencement of activities. Energy Audit to address any additional BAT recommendations that may be deemed appropriate.
4.2.3	**BAT is to optimise energy efficiency when planning a new installation, unit or system or a significant upgradeby considering all of the following:** a. the energy efficient design (EED) should be initiated at the	Yes	***Existing/Proposed*** Houses to be constructed with high insulation standards. It should be noted that a number of specific issues have

	early stages of the conceptual design/basic design phase, even though the planned investments may not be well-defined. b. the development and/or selection of energy efficient technologies c. additional data collection may need to be carried out as part of the design project or separately to supplement existing data or fill gaps in knowledge *d.* the EED work should be carried out by an energy expert e. the initial mapping of energy consumption should also address which parties in the project organisations influence the future energy consumption, and should optimise the energy efficiency design of the future plant with them. For example, the staff in the(existing) installation who may be responsible for specifying design parameters.		been addressed in the construction of these new houses so as to ensure the highest levels of energy efficiency. These are identified in Section 5.2.4 on page 2.
4.2.8	**BAT is to carry out maintenance at installations to optimise energy efficiency ….**	Yes	***Existing*** Although the houses will be newly constructed a maintenance programme will be carried out on site to ensure that all systems are running efficiently.
4.3.10	**BAT is to optimise artificial lighting systems by using the techniques such as those in Table 4.9 according to applicability**	Yes	***Existing*** As per 4.2.3 above.
	Remaining BAT recommendations. ***Including but not limited to 4.3.1 – 4.3.4 inclusive, 4.3.7 and 4.3.8.***	No.	Remaining recommendations are not deemed applicable to the existing/proposed development, and/or are more appropriately covered by sector specific BAT recommendations. It must also be born in mind that sector specific BAT recommendations on energy efficiency are already contained within ***Integrated Pollution Prevention and Control (IPPC) Reference Document on Best Available Techniques for Intensive Rearing of Poultry and Pigs July 2003***

Conclusions on BAT from the Emissions from Storage BAT Reference Document

READ ME:

The *'Conclusions on BAT from the Emissions from Storage BAT Reference Document'* is a horizontal BREF as it addresses the storage and the transfer/handling of liquids, liquefied gases and solids regardless of the sector or industry.

In this case, you are required to identify the Conclusions on BAT relevant to your installation. Please use the '**Scope**' box to describe the relevant activities/processes that come within the scope of this BREF and clearly identify the Conclusions on BAT (sections and subsections) that are **'Not Applicable'**.

For each applicable BAT, in the following table, state the status; **'Yes'** or **'Will be'** as appropriate in the '**State whether it is in place or state schedule for implementation**' box. The use of each of these terms is described below.

Information on compliance in the '**Applicability Assessment**' box should include, where applicable, the following:

(i) Identification of the relevant process/ activity or individual emission points that the BAT requirement applies to at your installation;

(ii) Where BAT is to use one or a combination of listed techniques, specify the technique(s) implemented/proposed at your installation to achieve the BAT; and

(iii) A comment on how the requirements are being met or will be met, e.g., a description of the technology/operational controls/management proposed to meet the requirements.

Use of terms:

(a) '**Yes**' – To be entered where the installation is currently complaint with this BAT requirement.

(b) '**Will be**' – To be entered where a further technique is required to be installed to achieve compliance with the BAT requirement. In this case you must also specify the date by which the installation will comply with the BAT Conclusion requirement.

Please refer to the EPA BAT Guidance Note(s) for BAT associated emission levels. EPA BAT Guidance Notes are the reference for setting emission limit values (without prejudice to the requirements of environmental quality standards).

BAT Guidance Notes are available on the EPA website.

Conclusions on BAT from the Emissions from Storage BAT Reference Document (extracts)

The full and complete Emissions from Storage BAT reference document (July 2006) is available at the EIPPC Bureau website:
http://eippcb.jrc.ec.europa.eu/reference/

SCOPE

Identify here the particular processes and activities at the installation that come within the scope of the conclusions on BAT from the Emissions from Storage BAT reference documents (BREF).

Conclusions on BAT	Applicability Assessment (describe how the technique applies or not to your installation)	State whether it is in place or state schedule for implementation
5.1 Storage of liquids and Liquefied gases **5.1.1.1 General principles to prevent and reduce emissions**		
BAT 1. BAT for a proper design is to take into account at least the following: • the physico-chemical properties of the substance being stored • how the storage is operated, what level of instrumentation is needed, how many operators are required, and what their workload will be • how the operators are informed of deviations from normal process conditions (alarms) • how the storage is protected against deviations from normal process conditions (safety instructions, interlock systems, pressure relief devices, leak detection and containment, etc.) • what equipment has to be installed, largely taking account of past experiences of the product (construction materials, valve quality, etc.)	**Applicable**	**Yes**

• which maintenance and inspection plan needs to be implemented and how to ease the maintenance and inspection work (access, layout, etc.) • how to deal with emergency situations (distances to other tanks, facilities and to the boundary, fire protection, access for emergency services such as the fire brigade, etc.).		
BAT 2. BAT is to apply a tool to determine proactive maintenance plans and to develop risk-based inspection plans such as the risk and reliability based maintenance approach; see Section 4.1.2.2.1.	**Applicable**	**Yes** **Leak Detection installed on new units**
BAT3. BAT is to locate a tank operating at, or close to, atmospheric pressure aboveground. However, for storing flammable liquids on a site with restricted space, underground tanks can also be considered. For liquefied gases, underground, mounded storage or spheres can be considered, depending on the storage volume.	**Applicable**	**Yes** **Housing units require underground tanks**
BAT 4. BAT is to apply either a tank colour with a reflectivity of thermal or light radiation of at least 70 %, or a solar shield on aboveground tanks which contain volatile substances, see Section 4.1.3.6 and 4.1.3.7 respectively.	**Not Applicable**	
BAT 5. BAT is to abate emissions from tank storage, transfer and handling that have a significant negative environmental effect, as described in Section 4.1.3.1	**Applicable**	**No Agitation**
BAT 6. On sites where significant VOC emissions are to be expected, BAT includes calculating the VOC emissions regularly.	**Not Applicable**	
BAT 7. BAT is to apply dedicated systems; see Section 4.1.4.4.	**Applicable**	**Yes**
5.1.1.2 Tank specific considerations		
Open top tanks **BAT 8.** If emissions to air occur, BAT is to cover the tank by applying: • a floating cover, see Section 4.1.3.2 • a flexible or tent cover, see Section 4.1.3.3, or	**Not Applicable**	

• a rigid cover, see Section 4.1.3.4. Additionally, with an open top tank covered with a flexible, tent or a rigid cover, a vapour treatment installation can be applied to achieve an additional emission reduction, see Section 4.1.3.15. The type of cover and the necessity for applying the vapour treatment system depend on the substances stored and must be decided on a case-by-case basis.		
BAT 9. To prevent deposition that would call for an additional cleaning step, BAT is to mix the stored substance (e.g. slurry), see Section 4.1.5.1.	**Not Applicable**	
External floating roof tank **BAT 10.** The BAT associated emission reduction level for a large tank is at least 97 % (compared to a fixed roof tank without measures), which can be achieved when over at least 95 % of the circumference the gap between the roof and the wall is less than 3.2 mm and the seals are liquid mounted, mechanical shoe seals.	**Not Applicable**	
BAT 11. BAT is to apply direct contact floating roofs (double-deck), however, existing non-contact floating roofs (pontoon) are also BAT. See Section 3.1.2. A dome can be BAT for adverse weather conditions, such as high winds, rain or snowfall. See Section 4.1.3.5.	**Not Applicable**	
BAT 12. For liquids containing a high level of particles (e.g. crude oil), BAT is to mix the stored substance to prevent deposition that would call for an additional cleaning step, see Section 4.1.5.1.	**Not Applicable**	
Fixed roof tanks **BAT 13.** For the storage of volatile substances which are toxic (T), very toxic (T+), or carcinogenic, mutagenic and reproductive toxic (CMR) categories 1 and 2 in a fixed roof tank, BAT is to apply a vapour treatment installation.	**Not Applicable**	
BAT 14. For other substances, BAT is to apply a vapour treatment installation, or to install an internal floating roof (see Sections 4.1.3.15 and 4.1.3.10 respectively). Direct contact floating roofs and non-contact floating roofs are BAT.	**Not Applicable**	

BAT 15. For tanks < 50 m^3, BAT is to apply a pressure relief valve set at the highest possible value consistent with the tank design criteria.	**Not Applicable**	
BAT 16. For liquids containing a high level of particles (e.g. crude oil) BAT is to mix the stored substance to prevent deposition that would call for an additional cleaning step, see Section 4.1.5.1.	**Not Applicable**	
Atmospheric horizontal tanks **BAT 17.** For the storage of volatile substances which are toxic (T), very toxic (T+), or CMR categories 1 and 2 in an atmospheric horizontal tank, BAT is to apply a vapour treatment installation.	**Not Applicable**	
BAT 18. For other substances, BAT is to do all, or a combination, of the following techniques, depending on the substances stored: • apply pressure vacuum relief valves; see Section 4.1.3.11 • up rate to 56 mbar; see Section 4.1.3.11 • apply vapour balancing; see Section 4.1.3.13 • apply a vapour holding tank, see Section 4.1.3.14, or • apply vapour treatment; see Section 4.1.3.15. The selection of the vapour treatment technology has to be decided on a case-by-case basis.	**Not Applicable**	
Pressurised storage **BAT 19.** BAT for draining depends on the tank type, but may be the application of a closed drain system connected to a vapour treatment installation, see Section 4.1.4. The selection of the vapour treatment technology has to be decided on a case-by-case basis.	**Not Applicable**	
Lifter roof tanks **BAT 20.** For emissions to air, BAT is to (see Sections 3.1.9 and 4.1.3.14): • apply a flexible diaphragm tank equipped with pressure/vacuum relief valves, or • apply a lifter roof tank equipped with pressure/vacuum relief valves and connected	**Not Applicable**	

to a vapour treatment installation. The selection of the vapour treatment technology has to be decided on a case-by-case basis.		
Underground and mounded tanks **BAT 21.** For the storage of volatile substances which are toxic (T), very toxic (T+), or CMR categories 1 and 2 in an underground or mounded tank, BAT is to apply a vapour treatment installation.	**Not Applicable**	
BAT 22. For other substances, BAT is to do all, or a combination, of the following techniques, depending on the substances stored: • apply pressure vacuum relief valves; see Section 4.1.3.11 • apply vapour balancing; see Section 4.1.3.13 • apply a vapour holding tank, see Section 4.1.3.14, or • apply vapour treatment; see Section 4.1.3.15. The selection of the vapour treatment technology has to be decided on a case-by-case basis.	**Not Applicable**	
5.1.1.3 Preventing incidents and (major) accidents		
BAT 23. BAT in preventing incidents and accidents is to apply a safety management system as described in Section 4.1.6.1.	**Applicable**	**Will be** **Procedures to be updated to reflect licence requirements**
BAT 24. BAT is to implement and follow adequate organisational measures and to enable training and instruction of employees for safe and responsible operation of the installation as described in Section 4.1.6.1.1.	**Applicable**	**Will be** **Procedures to be updated to reflect licence requirements**
BAT 25. BAT is to prevent corrosion by: • selecting construction material that is resistant to the product stored • applying proper construction methods • preventing rainwater or groundwater entering the tank and if necessary, removing water that has accumulated in the tank	**Applicable**	**Yes**

• applying rainwater management to bund drainage • applying preventive maintenance, and • where applicable, adding corrosion inhibitors, or applying cathodic protection on the inside of the tank.		
BAT 26. Additionally for an underground tank, BAT is to apply to the outside of the tank: • a corrosion-resistant coating • plating, and/or • a cathodic protection system.	**Not Applicable**	**Tank construction in line with Department of Agriculture, Food and The Marine Specifications.**
BAT 27. BAT is to prevent stress corrosion cracking (SCC) by: • stress relieving by post-weld heat treatment, see Section 4.1.6.1.4, and • **applying a risk based inspection as described in Section 4.1.2.2.1.**	**Remaining Not Applicable** **Section Highlighted – Applicable**	**N/a** **Leak detection system integrated into construction of new units**
BAT 28. BAT is to implement and maintain operational procedures – e.g. by means of a management system – as described in Section 4.1.6.1.5, to ensure that: • high level or high pressure instrumentation with alarm settings and/or auto closing of valves is installed • proper operating instructions are applied to prevent overfill during a tank filling operation, and • sufficient ullage is available to receive a batch filling.	**Applicable**	**Will Be** **To be managed in line with E.P.A. requirements on other similar sites, including high level alarms / indicators.**
BAT 29. BAT is to apply leak detection on storage tanks containing liquids that can potentially cause soil pollution.	**Applicable**	**Leak detection to be installed under all new structures.**
BAT 30. BAT is to achieve a 'negligible risk level' of soil pollution from bottom and bottom-wall connections of aboveground storage tanks. However, on a case-by-case basis, situations might be identified where an 'acceptable risk level' is sufficient.	**Not Applicable.**	
BAT 31. BAT for aboveground tanks containing flammable liquids or liquids that pose a risk for	**Not Applicable**	

significant soil pollution or a significant pollution of adjacent watercourses is to provide secondary containment, such as: • tank bunds around single wall tanks; see Section 4.1.6.1.11 • double wall tanks; see Section 4.1.6.1.13 • cup-tanks; see Section 4.1.6.1.14 • double wall tanks with monitored bottom discharge; see Section 4.1.6.1.15.		
BAT 32. For building new single walled tanks containing liquids that pose a risk for significant soil pollution or a significant pollution of adjacent watercourses, BAT is to apply a full, impervious, barrier in the bund, see Section 4.1.6.1.10.	**Not Applicable**	
BAT 33. For existing tanks within a bund, BAT is to apply a risk-based approach, considering the significance of risk from product spillage to the soil, to determine if and which barrier is best applicable. This risk-based approach can also be applied to determine if a partial impervious barrier in a tank bund is sufficient or if the whole bund needs to be equipped with an impervious barrier. See Section 4.1.6.1.11.	**Not Applicable**	
BAT 34. For chlorinated hydrocarbon solvents (CHC) in single walled tanks, BAT is to apply CHC-proof laminates to concrete barriers (and containments), based on phenolic or furan resins. One form of epoxy resin is also CHC-proof. See Section 4.1.6.1.12.	**Not Applicable**	
BAT 35. BAT for underground and mounded tanks containing products that can potentially cause soil pollution is to: • apply a double walled tank with leak detection, see Section 4.1.6.1.16, or • to apply a single walled tank with secondary containment and leak detection, see Section 4.1.6.1.17.	**Not Applicable**	**Manure torage tanks constructed to Dept. Of Agriculture, Food and The Marine Specifications.**
BAT 36. For toxic, carcinogenic or other hazardous substances, BAT is to apply full containment.	**Not Applicable**	
5.1.2. Storage of packaged dangerous substances		
BAT 37. BAT in preventing incidents and accidents is to apply a safety management system as described in Sections 4.1.6.1.	**Not Applicable**	**Not Stored on-site**

The minimum level of BAT is to assess the risks of accidents and incidents on the site using the five steps described in Section 4.1.6.1		
BAT 38. BAT is to appoint a person or persons who is or are responsible for the operation of the store.	**Not Applicable**	**Not Stored on-site**
BAT 39. BAT is to provide the responsible person(s) with specific training and retraining in emergency procedures as described in Section 4.1.7.1 and to inform other staff on the site of the risks of storing packaged dangerous substances and the precautions necessary to safely store substances that have different hazards.	**Not Applicable**	**Not Stored on-site**
BAT 40. BAT is to apply a storage building and/or an outdoor storage area covered with a roof, as described in Section 4.1.7.2. For storing quantities of less than 2500 litres or kilograms dangerous substances, applying a storage cell as described in Section 4.1.7.2 is also BAT.	**Not Applicable**	**Not Stored on-site**
BAT 41. BAT is to separate the storage area or building of packaged dangerous substances from other storage, from ignition sources and from other buildings on- and off-site by applying a sufficient distance, sometimes in combination with fire-resistant walls.	**Not Applicable**	**Not Stored on-site**
BAT 42. BAT is to separate and/or segregate incompatible substances. For the compatible and incompatible combinations see Annex 8.3.	**Not Applicable**	**Not Stored on-site**
BAT 43. BAT is to install a liquid-tight reservoir according to Section 4.1.7.5, that can contain all or a part of the dangerous liquids stored above such a reservoir. The choice whether all or only a part of the leakage needs to be contained depends on the substances stored and on the location of the storage (e.g. in a water catchment area) and can only be decided on a case-by-case basis.	**Not Applicable**	**Not Stored on-site**
BAT 44. BAT is to install a liquid-tight extinguishant collecting provision in storage buildings and storage areas according to Section 4.1.7.5. The collecting capacity depends on the substances stored, the amount of substances stored, the type of package used and the applied fire-fighting system and can only be decided on a case-by-case basis.	**Not Applicable**	**Not Stored on-site**

BAT 45. BAT is to apply a suitable protection level of fire prevention and fire-fighting measures as described in Section 4.1.7.6. The appropriate protection level has to be decided on a case-by-case basis in agreement with the local fire brigade.	**Not Applicable**	**Not Stored on-site**
BAT 46. BAT is to prevent ignition at source as described in Section 4.1.7.6.1.	**Not Applicable**	**Not Stored on-site**
5.1.3 Basins and lagoons		
BAT 47. Where emissions to air from normal operation are significant, e.g. with the storage of pig slurry, BAT is to cover basins and lagoons using one of the following options: • a plastic cover; see Section 4.1.8.2 • a floating cover; see Section 4.1.8.1, or • only small basins, a rigid cover; see Section 4.1.8.2. Additionally, where a rigid cover is used, a vapour treatment installation can be applied to achieve an extra emission reduction, see Section 4.1.3.15. The need for and type of vapour treatment must be decided on a case-by-case basis.	**Not Applicable**	**No external storage tanks**
BAT 48. To prevent overfilling due to rainfall in situations where the basin or lagoon is not covered, BAT is to apply a sufficient freeboard, see Section 4.1.11.1.	**Not Applicable**	
BAT 49. Where substances are stored in a basin or lagoon with a risk of soil contamination, BAT is to apply an impervious barrier. This can be a flexible membrane, a sufficient clay layer or concrete, see Section 4.1.9.1	**Not Applicable**	
5.2 Transfer and handling of liquids and liquefied gases **5.2.1 General principles to prevent and reduce emissions**		
BAT 50. BAT is to apply a tool to determine proactive maintenance plans and to develop risk-based inspection plans such as, the risk and reliability based maintenance approach; see Section 4.1.2.2.1.	**Applicable**	**Yes**
BAT 51. For large storage facilities, according to the properties of the products stored, BAT is to apply a leak detection and repair programme. Focus needs to be on those	**Applicable**	**Leak Detection under all new structures.**

situations most likely to cause emissions (such as gas/light liquid, under high pressure and/or temperature duties). See Section 4.2.1.3.		
BAT 52. BAT is to abate emissions from tank storage, transfer and handling that have a significant negative environmental effect, as described in Section 4.1.3.1.	**Not Applicable**	
BAT 53. BAT in preventing incidents and accidents is to apply a safety management system as described in Section 4.1.6.1.	**Applicable**	**Yes**
BAT 54. BAT is to implement and follow adequate organisational measures and to enable the training and instruction of employees for safe and responsible operation of the installation as described in Section 4.1.6.1.1.	**Applicable**	**Yes**
5.2.2 Considerations on transfer and handling techniques **5.2.2.1 Piping**		
BAT 55. BAT is to apply aboveground closed piping in new situations, see Section 4.2.4.1. For existing underground piping it is BAT to apply a risk and reliability based maintenance approach as described in Section 4.1.2.2.1.	**Applicable**	**Will be** **To be considered upon the installation of any new infrastructure.**
BAT 56. BAT is to minimise the number of flanges by replacing them with welded connections, within the limitation of operational requirements for equipment maintenance or transfer system flexibility, see Section 4.2.2.1.	**Not Applicable**	
BAT 57. BAT for bolted flange connections (see Section 4.2.2.2.) include: • fitting blind flanges to infrequently used fittings to prevent accidental opening • using end caps or plugs on open-ended lines and not valves • ensuring gaskets are selected appropriate to the process application • ensuring the gasket is installed correctly • ensuring the flange joint is assembled and loaded correctly • where toxic, carcinogenic or other hazardous substances are transferred, fitting high integrity gaskets, such as spiral wound, kammprofile or ring joints.	**Not Applicable**	

BAT 58. BAT is to prevent corrosion by: • selecting construction material that is resistant to the product • applying proper construction methods • applying preventive maintenance, and • where applicable, applying an internal coating or adding corrosion inhibitors.	**Applicable**	**Yes**
BAT 59. To prevent the piping from external corrosion, BAT is to apply a one, two, or three layer coating system depending on the site-specific conditions (e.g. close to sea). Coating is normally not applied to plastic or stainless steel pipelines. See Section 4.2.3.2.	**Not Applicable**	
5.2.2.2 Vapour treatment		
BAT 60. BAT is to apply vapour balancing or treatment on significant emissions from the loading and unloading of volatile substances to (or from) trucks, barges and ships. The significance of the emission depends on the substance and the volume that is emitted, and has to be decided on a case-by-case basis. For more detail see Section 4.2.8.	**Not Applicable**	
5.2.2.3 Valves		
BAT 61. BAT for valves include: • correct selection of the packing material and construction for the process application • with monitoring, focus on those valves most at risk (such as rising stem control valves in continual operation) • applying rotating control valves or variable speed pumps instead of rising stem control valves • where toxic, carcinogenic or other hazardous substances are involved, fit diaphragm, bellows, or double walled valves • route relief valves back into the transfer or storage system or to a vapour treatment system.	**Not Applicable**	
5.2.2.4 Pumps and compressors		

BAT 62. The following are some of the main factors which constitute BAT: • proper fixing of the pump or compressor unit to its base-plate or frame • having connecting pipe forces within producers' recommendations • proper design of suction pipework to minimise hydraulic imbalance • alignment of shaft and casing within producers' recommendations • alignment of driver/pump or compressor coupling within producers' recommendations when fitted • correct level of balance of rotating parts • effective priming of pumps and compressors prior to start-up • operation of the pump and compressor within producers' recommended performance range (The optimum performance is achieved at its best efficiency point.) • the level of net positive suction head available should always be in excess of the pump or compressor • regular monitoring and maintenance of both rotating equipment and seal systems, combined with a repair or replacement programme.	**Not Applicable**	
BAT 63. BAT is to use the correct selection of pump and seal types for the process application, preferably pumps that are technologically designed to be tight such as canned motor pumps, magnetically coupled pumps, pumps with multiple mechanical seals and a quench or buffer system, pumps with multiple mechanical seals and seals dry to the atmosphere, diaphragm pumps or bellow pumps. For more details see Sections 3.2.2.2, 3.2.4.1 and 4.2.9.	**Not Applicable**	
BAT 64. BAT for compressors transferring non-toxic gases is to apply gas lubricated mechanical seals.	**Not Applicable**	
BAT 65. BAT for compressors, transferring toxic gases is to apply double seals with a liquid or gas barrier and to purge the process side of the containment seal with an inert buffer gas.	**Not Applicable**	
BAT 66. In very high pressure services, BAT is to apply a triple tandem seal system.	**Not Applicable**	

5.2.2.5 Sampling connections		
BAT 67. BAT, for sample points for volatile products, is to apply a ram type sampling valve or a needle valve and a block valve. Where sampling lines require purging, BAT is to apply closed-loop sampling lines. See Section 4.2.9.14.	**Not Applicable**	
5.3 Storage of solids **5.3.1 Open storage**		
BAT 68. BAT is to apply enclosed storage by using, for example, silos, bunkers, hoppers and containers, to eliminate the influence of wind and to prevent the formation of dust by wind as far as possible by primary measures. See Table 4.12 for these primary measures with cross-references to the relevant sections.	**Not Applicable**	
BAT 69. BAT for open storage is to carry out regular or continuous visual inspections to see if dust emissions occur and to check if preventive measures are in good working order. Following the weather forecast by, e.g, using meteorological instruments on site, will help to identify when the moistening of heaps is necessary and will prevent unnecessary use of resources for moistening the open storage. See Section 4.3.3.1.	**Not Applicable**	
BAT 70. BAT for long-term open storage are one, or a proper combination, of the following techniques: • moistening the surface using durable dust-binding substances, see Section 4.3.6.1 • covering the surface, e.g. with tarpaulins, see Section 4.3.4.4 • solidification of the surface, see Table 4.13 • grassing-over of the surface, see Table 4.13.	**Not Applicable**	
BAT 71. BAT for short-term open storage are one, or a proper combination, of the following techniques: • moistening the surface using durable dust-binding substances, see Section 4.3.6.1 • moistening the surface with water, see Sections 4.3.6.1 • covering the surface, e.g. with tarpaulins, see Section 4.3.4.4.	**Not Applicable**	

5.3.2 Enclosed storage		
BAT 72. BAT is to apply enclosed storage by using, for example, silos, bunkers, hoppers and containers. Where silos are not applicable, storage in sheds can be an alternative. This is, e.g. the case if apart from storage, the mixing of batches is needed.	**Applicable**	**Yes**
BAT 73. BAT for silos is to apply a proper design to provide stability and prevent the silo from collapsing. See Sections 4.3.4.1 and 4.3.4.5.	**Applicable**	**Yes**
BAT 74. BAT for sheds is to apply proper designed ventilation and filtering systems and to keep the doors closed. See Section 4.3.4.2.	**Applicable**	**Yes**
BAT 75 BAT is to apply dust abatement and a BAT associated emission level of 1 – 10 mg/m^3, depending on the nature/type of substance stored. The type of abatement technique has to be decided on a case-by-case basis. See Section 4.3.7.	***Not Applicable***	
BAT 76. For a silo containing organic solids, BAT is to apply an explosion resistant silo (see Section 4.3.8.3), equipped with a relief valve that closes rapidly after the explosion to prevent oxygen entering the silo, as described in Section 4.3.8.4.	**Not Applicable**	
5.3.4 Preventing incidents and (major) accidents		
BAT 77. BAT in preventing incidents and accidents is applying a safety management system as described in Section 4.1.7.1.	**Applicable**	**Yes**
5.4 Transfer and handling of solids **5.4.1 General approaches to minimise dust from transfer and handling**		
BAT 78. BAT is to prevent dust dispersion due to loading and unloading activities in the open air, by scheduling the transfer as much as possible when the wind speed is low. However, and taking into account the local situation, this type of measure cannot be generalised to the whole EU and to any situation irrespective of the possible high	**Not Applicable**	

costs. See Section 4.4.3.1.		
BAT 79. When applying a mechanical shovel, BAT is to reduce the drop height and to choose the best position during discharging into a truck; see Section 4.4.3.4.	**Not Applicable**	
BAT 80. BAT then is to adjust the speed of vehicles on-site to avoid or minimise dust being swirled up; see Section 4.4.3.5.2.	**Not Applicable**	
BAT 81. BAT for roads that are used by trucks and cars only, is applying hard surfaces to the roads of, for example, concrete or asphalt, because these can be cleaned easily to avoid dust being swirled up by vehicles, see Section 4.4.3.5.3. However, applying hard surfaces to the roads is not justified when the roads are used just for big shovel vehicles or when a road is temporary.	**Not Applicable**	
BAT 82. BAT is to clean roads that are fitted with hard surfaces according to Section 4.4.6.12.	**Not Applicable**	
BAT 83. Cleaning of vehicle tyres is BAT. The frequency of cleaning and type of cleaning facility applied (see Section 4.4.6.13) has to be decided on a case-by-case basis.	**Not Applicable**	
BAT 84. Where it neither compromises product quality, plant safety, nor water resources, BAT for loading/unloading drift sensitive, wettable products is to moisten the product as described in Sections 4.4.6.8, 4.4.6.9 and 4.3.6.1. Risk of freezing of the product, risk of slippery situations because of ice forming or wet product on the road and shortage of water are examples when this BAT might not be applicable.	**Not Applicable**	
BAT 85. For loading/unloading activities, BAT is to minimise the speed of descent and the free fall height of the product; see Sections 4.4.5.6 and 4.4.5.7 respectively. Minimising the speed of descent can be achieved by the following techniques that are BAT: • installing baffles inside fill pipes • applying a loading head at the end of the pipe or tube to regulate the output speed • applying a cascade (e.g. cascade tube or hopper) • applying a minimum slope angle with, e.g. chutes.	**Not Applicable**	
BAT 86.	**Not Applicable**	

To minimise the free fall height of the product, the outlet of the discharger should reach down onto the bottom of the cargo space or onto the material already piled up. Loading techniques that can achieve this, and that are BAT, are: • height adjustable fill pipes • height adjustable fill tubes, and • height adjustable cascade tubes. These techniques are BAT, except when loading/unloading non drift sensitive products, for which the free fall height is not that critical.		
5.4.2 Considerations on transfer techniques		
BAT 87. For applying a grab, BAT is to follow the decision diagram as shown in Section 4.4.3.2 and to leave the grab in the hopper for a sufficient time after the material discharge.	**Not Applicable**	
BAT 88. BAT for new grabs, is to apply grabs with the following properties (see Section 4.4.5.1): • geometric shape and optimal load capacity • the grab volume is always higher than the volume that is given by the grab curve • the surface is smooth to avoid material adhering, and • a good closure capacity during permanent operation.	**Not Applicable**	
BAT 89. For all types of substances, BAT is to design conveyor to conveyor transfer chutes in such a way that spillage is reduced to a minimum. A modelling process is available to generate detail designs for new and existing transfer points. For more details see Section 4.4.5.5.	**Not Applicable**	
BAT 90. For non or very slightly drift sensitive products (S5) and moderately drift sensitive, wettable products (S4), BAT is to apply an open belt conveyor and additionally, depending on the local circumstances, one or a proper combination of the following techniques: • lateral wind protection, see Section 4.4.6.1 • spraying water and jet spraying at the transfer points, see Sections 4.4.6.8 and 4.4.6.9, and/or • belt cleaning, see Section 4.4.6.10.	**Not Applicable**	

BAT 91. For highly drift sensitive products (S1 and S2) and moderately drift sensitive, not wettable products (S3) BAT for new situations, is to: apply closed conveyors, or types where the belt itself or a second belt locks the material (see Section 4.4.5.2), such as: • pneumatic conveyors • trough chain conveyors • screw conveyors • tube belt conveyor • loop belt conveyor • double belt conveyor or to apply enclosed conveyor belts without support pulleys (see Section 4.4.5.3), such as: • aerobelt conveyor • low friction conveyor • conveyor with diabolos. The type of conveyor depends on the substance to be transported and on the location and has to be decided on a case-by-case basis.	**Not Applicable**	
BAT 92. For existing conventional conveyors, transporting highly drift sensitive products (S1 and S2) and moderately drift sensitive, not wettable products (S3), BAT is to apply housing; see Section 4.4.6.2. When applying an extraction system, BAT is to filter the outgoing air stream; see Section 4.4.6.4.	**Not Applicable**	
BAT 93. To reduce energy consumption for conveyor belts (see Section 4.4.5.2), BAT is to apply: • a good conveyor design, including idlers and idler spacing • an accurate installation tolerance, and • a belt with low rolling resistance.	**Not Applicable**	

Additional Information

TABLE E.2(i): UNCONTAMINATED EMISSIONS TO SURFACE WATERS
(One page for each emission)

Emission Point:

Emission Point Ref. Nº:	SWA & SWB
Source of Emission:	Roof and Clean Yard Run-off
Location :	
Grid Ref. (10 digit, 5E,5N):	SW – A 267927,292536 SW – B 267835, 292591
Name of receiving waters:	Local Stream

TABLE E.3(i): UNCONTAMINATED EMISSIONS TO GROUND (1 Page for each emission point)

Emission Point or Area:

Emission Point/Area Ref. №:	
Emission Pathway: (borehole, well, percolation area, soakaway, landspreading, etc.)	
Location :	
Grid Ref. (10 digit, 5E,5N):	
Aquifer classification for receiving groundwater body:	
Groundwater vulnerability assessment (including vulnerability rating):	
Identity and proximity of groundwater sources at risk (wells, springs, etc):	
Identity and proximity of surface water bodies at risk:	

TABLE F.1(i) : EMISSIONS MONITORING AND SAMPLING POINTS - (1 table per monitoring point)

Emission Point Reference No. : _____

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling method	Analysis method/ technique

TABLE H.3(i): Generation of waste at the installation and its management

Waste description	EWC Code (use asterisk to indicate whether hazardous waste or not)	Category per Animal By-products Regulation 1069/2009	Source of waste	Quantity generated (tonnes per month)	Location of recovery of disposal (on-site, off-site, exported)	Method of recovery or disposal (e.g. recycling, energy recovery, other incineration, landfill)

Table I.2(i) GROUNDWATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference:

Parameter	Results (mg/l)				Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	Date	Date	Date	Date			
pH							
Ammoniacal nitrogen NH_4-N							
Phosphate PO_4							
Faecal coliforms (/100mls)							
Total coliforms (/100mls)							
Water level (m OD)							
Phosphate PO_4							
Faecal coliforms (/100mls)							
Total coliforms (/100mls)							
Water level (m OD)							

TABLE I.2(ii): LIST OF OWNERS/FARMERS OF LAND

Land Owner	Townlands where landspreading	Map Reference	Fertiliser P requirement for each farm
			*NMP must take account of on-farm slurry

Total P requirement of the client List _____

TABLE I.2(iii): LANDSPREADING

Land Owner/Farmer_____

Map Reference_____

Field ID	Total Area (ha)	(a) Usable Area (ha)	Soil P Test Mg/l	Date of P test	Crop	P Required (kg P/ha)	Volume of On-Farm Slurry Returned (m^3/ha)	Estimated P in On-Farm Slurry (kg P/ha)	(b) Volume to be Applied (m^3/ha)	P Applied (kg P/ha)	Total Volume of imported slurry per plot (m^3)

TOTAL VOLUME THAT CAN BE IMPORTED ON TO THE FARM.

Concentration of P in landspread matterial	- kg P/m^3
Concentrarion of N in landspread material	- kg N/m^3