



Headquarters
P.O. Box 3000
Johnstown Castle Estate
County Wexford
Ireland

INTEGRATED POLLUTION PREVENTION & CONTROL LICENCE
Recommended Determination

Licence Register Number:	P0467-02
Licensee:	Woodville Pig Farms Limited
Location of Installation:	Breeding Unit: Woodville, Ballymackey, Co. Tipperary. Production Pig Unit: Ballyknockane, Ballymackey, Co. Tipperary. Anaerobic Digester: Ballaghveny, Ballymackey, Co. Tipperary.

INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

Woodville Pig Farms Limited was granted an IPPC licence Reg. No. 467-01 to operate a 620 sow integrated unit located at Woodville, Ballymackey, Nenagh, Co. Tipperary on 29 March 2000. By agreement with the Agency (OEE) under IPPC licence Reg No. P0467-01 the maximum licensed animal numbers were amended to 220 farrowing sows, 700 dry sows, 109 gilts, 12 boars, 3,840 weaners and 0 production pigs, i.e. a 920 sow breeding unit on 20 April 2004. Woodville Pig Farms Limited is located in a rural area of Tipperary approximately 12 km north east of Nenagh town.

The installation is authorised to undertake the following activities under the terms of this revised licence:

- 1) to include a new class of activity (Class 11.1) to facilitate the proposed development of an Anaerobic Digester (AD) located at Ballaghveny, Ballymackey, Co. Tipperary for the treatment of pig manure and imported organic waste/materials and to authorise the importation of organic waste/materials for treatment therein,**
- 2) to incorporate an existing production pig unit located at Ballyknockane, Ballymackey, Nenagh, Co. Tipperary.**

The anaerobic digester, breeding unit and production pig unit are located on separate sites within approximately 1.8 km of the breeding unit.

This installation falls within the scope of category 6.6 *Installation for the intensive rearing of poultry or pigs with more than (b) 2000 places for production pigs (over 30kg); and (c) 750 places for sows* of Annex 1 of Council Directive 2008/1/EC concerning integrated pollution prevention and control.

The licence sets out in detail the conditions under which Woodville Pig Farms Limited, Woodville, Ballymackey, Nenagh, Co. Tipperary will operate and manage this installation.

Table of Contents

Page No

Glossary of Terms	1
Decision & Reasons for the Decision	6
Part I Schedule of Activities Licensed	6
Part II Schedule of Activities Refused	6
Part III Conditions	7
Condition 1. Scope	7
Condition 2. Management of the Installation	8
Condition 3. Infrastructure and Operation	9
Condition 4. Interpretation	11
Condition 5. Emissions	11
Condition 6. Control and Monitoring	12
Condition 7. Resource Use and Energy Efficiency	15
Condition 8. Materials Handling	15
Condition 9. Accident Prevention and Emergency Response	17
Condition 10. Decommissioning & Residuals Management	18
Condition 11. Notification, Records and Reports	19
Condition 12. Financial Charges and Provisions	21
SCHEDULE A: Limitations	22
SCHEDULE B: Emission Limits	23
SCHEDULE C: Control & Monitoring	24
SCHEDULE D: Annual Environmental Report	30

Glossary of Terms

All terms in this licence should be interpreted in accordance with the definitions in the Environmental Protection Agency Acts 1992 to 2011 / Waste Management Acts 1996 to 2011, unless otherwise defined in the section.

Adequate lighting	20 lux measured at ground level.
AER	Annual Environmental Report.
Agreement	Agreement in writing.
Animal By-Product Regulations	Regulation (EC) No. 1774 /2002, European Communities (Animal By-Products not intended for human consumption) Regulations 2002 and amendments.
Annually	All or part of a period of twelve consecutive months.
Application	The application by the licensee for this licence.
Appropriate Facility	A waste management facility, duly authorised under relevant law and technically suitable.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
BAT	Best Available Techniques.
Biannually	At approximately six – monthly intervals.
Biennially	Once every two years.
Biogas plant	A plant in which biological degradation of organic waste/material is undertaken under anaerobic conditions for the production and collection of biogas.
BOD	5 day Biochemical Oxygen Demand (without nitrification suppression).
Buffer zone	Area excluded from landspreading of slurry/manure/digestate.
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
CHP	Combined heat and power plant
COD	Chemical Oxygen Demand.
Containment boom	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.

Customer Farmers	Farmers who may use/recover slurry/manure generated at the installation as fertiliser on their lands.
Customer Farmers' Lands	The lands owned/managed by customer farmers.
Daily	During all days of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement on any one day.
Day	Any 24 hour period.
Daytime	0800 hrs to 2200 hrs
dB(A)	Decibels (A weighted).
Digestate	Slurry/manure and/or organic waste and/or feedstock which has undergone anaerobic digestion.
DO	Dissolved oxygen.
Documentation	Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
EIS	Environmental Impact Statement
EMP	Environmental Management Programme.
Emission limits	Those limits, including concentration limits and deposition rates, established in <i>Schedule B: Emission Limits</i> , of this licence.
Environmental damage	As defined in Directive 2004/35/EC.
EPA	Environmental Protection Agency.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC and any subsequent amendment published in the Official Journal of the European Community.
Facility	Any site or premises used for the purpose of the recovery or disposal of waste.
Fortnightly	A minimum of 24 times per year, at approximately two week intervals

Freeboard	The difference in elevation between the maximum elevation of the slurry/manure/digestate and the minimum elevation of the storage tank (i.e. the minimum spare vertical height between tank contents and point of over-topping).
ha	Hectare.
Hours of operation	The hours during which the installation is authorised to be operational.
Hours of waste/material acceptance	The hours during which the installation is authorised to accept waste/material .
Incident	The following shall constitute as incident for the purposes of this licence: (i) an emergency; (ii) any emission which does not comply with the requirements of this licence; (iii) any trigger level specified in this licence which is attained or exceeded; and, (iv) any indication that environmental pollution has, or may have, taken place.
Installation	A stationary technical unit or plant where the activity concerned referred to in the First Schedule of EPA Acts 1992 to 2011 is or will be carried on, and shall be deemed to include any directly associated activity, which has a technical connection with the activity and is carried out on the site of the activity.
Intensive Pig and/or Poultry unit	Activities which are required to hold an IPPC Licence.
IPPC	Integrated Pollution Prevention & Control.
K	Kelvin.
kPa	Kilopascals.
Landspreading	The application of slurry/manure/digestate to farmland.
L_{eq}	Equivalent continuous sound level.
Licensee	Woodville Pig Farms Limited, Woodville, Ballymackey, Nenagh, Co. Tipperary.
Local Authority	North Tipperary County Council.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.

Mass flow limit	An emission limit value expressed as the maximum mass of a substance that can be emitted per unit time.
Mass flow threshold	A mass flow rate above which a concentration limit applies.
Monthly	A minimum of 12 times per year, at intervals of approximately one month.
Night-time	2200 hrs to 0800 hrs.
Noise-sensitive location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other installation or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
NMP	Nutrient Management Plan.
Odour-sensitive location	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of odour at nuisance levels.
Organic fertiliser	Any fertiliser other than that manufactured by industrial process and includes livestock manure, dungstead manure, farmyard manure, slurry, soiled water, silage effluent, non-farm organic substances such as sewage sludge, industrial by-products and sludges and residues from fish farms.
Owner/operator	IPPC licensee.
Production pig	Any pig over 30kg in weight which is being fattened for slaughter.
PRTR	Pollutant Release and Transfer Register.
Quarterly	All or part of a period of three consecutive months beginning on the first day of January, April, July or October.
Sample(s)	Unless the context of this licence indicates to the contrary, the term samples shall include measurements taken by electronic instruments.
Sanitary effluent	Wastewater from installation toilet, washroom and canteen facilities.
Slurry/Manure	Animal faeces, urine, washwater and any associated feed or bedding.
SOP	Standard operating procedure.
Sow	A female pig after its first farrowing.
Specified emissions	Those emissions listed in <i>Schedule B: Emission Limits</i> , of this licence.
Standard method	A National, European or internationally recognised procedure (e.g. I.S. EN, ISO, CEN, BS or equivalent); or an in-house documented procedure based on

the above references; a procedure as detailed in the current edition of "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by A.P.H.A., A.W.W.A. & W.E.F.), American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or an alternative method as may be agreed by the Agency.

Storm water	Rain water run-off from roof and non-process areas.
The Agency	Environmental Protection Agency.
Trigger level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Washwater	Water contaminated by use in the washing of yards and animal housing.
Weekly	During all weeks of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement in any one week.

Decision & Reasons for the Decision

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any emissions from the activity will comply with and will not contravene any of the requirements of Section 83(5) of the Environmental Protection Agency Acts 1992 to 2011.

In reaching this decision the Environmental Protection Agency has considered the application and supporting documentation received from the applicant, and the report of its inspector.

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Environmental Protection Agency Acts 1992 to 2011, the Agency proposes to determine the review of the existing licence (Reg. No. P0467-01) granted to: **Woodville Pig Farms Limited, Woodville, Ballymackey, Nenagh, Co. Tipperary**, under Section 90(2) of the said Acts to carry on the following activities:

- **the rearing of pigs in an installation, whether within the same complex or within 100 metres of the same complex, where the capacity exceeds 285 places for sows in an integrated unit and 2,000 places for production pigs; and**
- **the recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required.**

at **Woodville, Ballymackey, Co. Tipperary (breeding unit), Ballyknockane, Ballymackey, Co. Tipperary (production pig unit) and Ballaghveny, Ballymackey, Co. Tipperary (anaerobic digester)** subject to the following twelve Conditions, with the reasons therefor and associated schedules attached thereto.

Part II Schedule of Activities Refused

None of the proposed activities as set out in the licence application have been refused.

Part III Conditions

Condition 1. Scope

- 1.1 IPPC activities at this installation shall be restricted to those listed and described in *Part I Schedule of Activities Licensed*, and shall be as set out in the licence application or as modified under Condition 1.5 of this licence and subject to the conditions of this licence.
- 1.2 Activities at this installation shall be limited as set out in *Schedule A: Limitations*, of this licence.
- 1.3 **Waste/Material Acceptance Hours at the Anaerobic Digester**
- 1.3.1 **Deliveries of waste/materials to the installation shall be limited to between 08.00 and 20.00 hours, Monday to Friday inclusive, and between 08.00 and 13.00 hours on Saturdays, unless otherwise agreed by the Agency.**
- 1.3.2 **There shall be no deliveries of waste/materials on Sundays or on Public Holidays without the prior agreement of the Agency.**
- 1.3.3 **There shall be no casual public access to the installation.**
- 1.4 For the purposes of this licence, the installation authorised by this licence are the areas of land outlined in red on Drawing No. 005 entitled "Rev site plan Stormwater routes" (breeding unit), Drawing No. 003 entitled "Ballyknockane Pig Farm Site Plan – Stormwater layout" (production pig unit) and Drawing No.016 entitled "Tipperary Milling Co. Ltd Site Plan with stormwater routes" (anaerobic digester) (received on 20 July 2010) of the application. Any reference in this licence to "installation" shall mean the areas thus outlined in red. The licensed activities shall be carried on only within the areas outlined.
- 1.5 No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in
- (i) a material change or increase in:
- the nature or quantity of any emission;
 - the abatement/treatment or recovery systems;
 - the range of processes to be carried out;
 - the fuels, raw materials, intermediates, products or wastes generated, or
- (ii) any changes in:
- site management, infrastructure or control with adverse environmental significance;
- shall be carried out or commenced without prior notice to, and without the agreement of, the Agency.
- 1.6 The installation shall be controlled, operated and maintained, and emissions shall take place as set out in the licence. All programmes required to be carried out under the terms of this licence become part of this licence.
- 1.7 This licence is for the purpose of IPPC licensing under the EPA Acts 1992 to 2011 only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.
- 1.8 This licence has been granted in substitution for the licence granted to the licensee on **29 March 2000 (Register No P0467-01)**. The previous IPPC licence (**Reg No. P0467-01**) is superseded by this revised licence.

Reason: *To clarify the scope of this licence.*

Condition 2. Management of the Installation

2.1 Installation Management

The licensee shall ensure that a person in charge, as defined under the terms of the Environmental Protection Agency Acts 1992 to 2011 shall be available on-site to meet with authorised persons of the Agency at all reasonable times.

2.2 Environmental Management System (EMS)

2.2.1 The licensee shall **establish and maintain** an Environmental Management System (EMS) **within six months of the date of commencement of the operation of the anaerobic digester**. The EMS shall be updated on an annual basis.

2.2.2 The EMS shall include, as a minimum, the following elements:

2.2.2.1 Management and Reporting Structure.

2.2.2.2 Schedule of Environmental Objectives and Targets.

The licensee shall **prepare and maintain** a Schedule of Environmental Objectives and Targets. The schedule shall, as a minimum, provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production, production related carbon footprint and the prevention, reduction and minimisation of waste and shall include waste reduction targets. The schedule shall include time frames for the achievement of set targets and shall address a five-year period as a minimum. The schedule shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

2.2.2.3 Environmental Management Programme (EMP)

The licensee shall, **not later than six months from the date of commencement of the operation of the anaerobic digester, submit to the Agency for agreement** an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.2. Once agreed the EMP shall be **maintained** by the licensee. It shall include:

- designation of responsibility for targets;
- the means by which they may be achieved;
- the time within which they may be achieved.

The EMP shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

A report on the programme, including the success in meeting agreed targets, shall be prepared and submitted to the Agency as part of the AER. Such reports shall be retained on-site for a period of not less than seven years and shall be available for inspection by authorised persons of the Agency.

2.3 Documentation

2.3.1 The licensee shall establish and maintain an environmental management documentation system which shall be to the satisfaction of the Agency.

2.3.2 The licensee shall issue a copy of this licence to all relevant personnel whose duties relate to any condition of this licence.

2.4 Corrective Action

The licensee shall establish procedures to ensure that corrective action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for

initiating further investigation and corrective action in the event of a reported non-conformity with this licence shall be defined.

2.5 Awareness and Training

2.5.1 The licensee shall establish and maintain procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect on the environment. Appropriate records of training shall be maintained.

2.5.2 Personnel/contractors performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and/or experience, as required. The licensee must ensure that contractors/agents involved in transport of waste, **imported waste/materials** and slurry/manure/digestate are appropriately trained and/or experienced, and receive adequate supervision on site.

2.6 Communications Programme

2.6.1 The licensee shall maintain a Communications Programme to ensure that members of the public can obtain information at the installation, or as otherwise agreed by the Agency, at all reasonable times, concerning the environmental performance of the installation.

Reason: *To make provision for management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.*

Condition 3. Infrastructure and Operation

3.1 The licensee shall establish and maintain, for each component of the installation, all infrastructure referred to in this licence in advance of the commencement of the licensed activities in that component, or as required by the conditions of this licence. Infrastructure specified in the application that relates to the environmental performance of the installation and is not specified in the licence, shall be installed in accordance with the schedule submitted in the application.

3.2 Installation Notice Board

3.2.1 The licensee shall, within one month of the date of **commencement of the operation of the anaerobic digester**, provide an Installation Notice Board at the installation (**Ballaghveny**) so that it is legible to persons outside the main entrance to the installation. The minimum dimensions of the board shall be 1200 mm by 750 mm. The notice board shall be maintained thereafter.

3.2.2 The board shall clearly show:

- (i) the name and telephone number of the installation;
- (ii) the normal hours of operation;
- (iii) the name of the licence holder;
- (iv) an emergency out of hours contact telephone number;
- (v) the licence reference number; and
- (vi) where environmental information relating to the installation can be obtained.

3.3 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

3.4 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned.

3.5 Tank, Container and Drum Storage Areas

- 3.5.1 All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004).
- 3.5.2 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:
- (i) 110% of the capacity of the largest tank or drum within the bunded area; or
 - (ii) 25% of the total volume of substance that could be stored within the bunded area.
- 3.5.3 All drainage from bunded areas shall be treated as hazardous waste unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal.
- 3.5.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.5.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.
- 3.6 The licensee shall have in storage an adequate supply of suitable absorbent material to contain and absorb any spillage at the installation. Once used, the absorbent material shall be disposed of at an appropriate facility.
- 3.7 All pumps sumps, storage tanks, or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach local or remote containment or separators, shall be fitted with high liquid level alarms (or oil detectors as appropriate) within nine months from the date of grant of this licence. **In particular, high level alarms shall be fitted prior to utilisation of the two mixing tanks, the three material tanks, the proposed covered geo-membrane lined digestate storage basins, the primary and secondary digester at the installation.**
- 3.8 The provision of a catchment system to collect any leaks from flanges and valves of all over-ground pipes used to transport material other than water shall be examined. This shall be incorporated into a Schedule of Environmental Objectives and Targets set out in Condition 2. of this licence for the reduction in fugitive emissions.
- 3.9 **All wellheads shall be adequately protected to prevent contamination or physical damage within six months from the date of grant of this licence.**
- 3.10 The licensee shall install and maintain a water meter on all water supplies serving the installation within six months from the date of grant of this licence. Records of water usage shall be maintained on site and a summary records report shall be submitted annually as part of the AER.
- 3.11 The licensee shall, within three months of the date of commencement of the operation of the anaerobic digester, install in a prominent location **at the installation (Ballaghveny)** a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.
- 3.12 The licensee shall provide and maintain a Wastewater Treatment plant at the installation for the treatment of sanitary effluent arising on-site. Any waste water treatment system and percolation area shall satisfy the criteria set out in the *Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses (p.e ≤ 10)*, published by the Environmental Protection Agency.
- 3.13 **The licensee shall, prior to commencement of importation of anaerobic digester feed materials, obtain approval from the Department of Agriculture, Fisheries and Food, in accordance with the Animal By-Product Regulations, as necessary, for operation of the anaerobic digester. Records of correspondence shall be maintained for inspection by authorised personnel of the Agency.**
- 3.14 **Slurry/Manure/Digestate and Soiled Water Storage Facilities**

- 3.14.1 The licensee shall provide a minimum of 26 weeks storage for slurry/manure/digestate and soiled water on-site or at an agreed storage location.
- 3.14.2 The licensee shall divert all soiled water to the on-site slurry/manure/digestate storage facilities or other such facilities as agreed by the Agency.
- 3.14.3 The licensee shall develop procedures for the operation and maintenance of sluice gates/pumps to manage slurry/manure/digestate storage, transfer and removal off site, prior to commencement of anaerobic digestion operations.
- 3.14.4 All overground tanks shall be covered prior to utilisation for digestate storage.

Reason: *To provide for appropriate operation of the installation to ensure protection of the environment.*

Condition 4. Interpretation

4.1 Noise

Noise from the installation shall not give rise to sound pressure levels (Leq, T) measured at noise sensitive locations of the installation which exceed the limit value(s) **specified in Schedule B.4 Noise Emissions, of this licence.**

Reason: *To clarify the interpretation of limit values fixed under the licence.*

Condition 5. Emissions

- 5.1 No specified emission from the installation shall exceed the emission limit values set out in *Schedule B: Emission Limits*, of this licence. There shall be no other emissions of environmental significance.
- 5.2 No emissions, including odours, from the activities carried on at the site shall result in an impairment of, or an interference with amenities or the environment beyond the installation boundary or any other legitimate uses of the environment beyond the installation boundary.
- 5.3 No polluting matter shall be discharged to the surface water drainage system.
- 5.4 The licensee shall ensure that all or any of the following: **vermin, flies, mud, dust, and /or odours** associated with the activity do not result in an impairment of, or an interference with, amenities or the environment at the installation or beyond the installation boundary or any other legitimate uses of the environment beyond the installation boundary. Any method used by the licensee to control or prevent any such impairment/interference shall not cause environmental pollution.
- 5.5 **Odour Control**

The licensee shall, within one year of the date of grant of licence, submit an odour management programme for agreement with the Agency outlining odour reduction measures appropriate for the site. The odour management programme shall as a minimum address the following: the use of low-protein feeds; covering of open slurry storage tanks; renovation of existing buildings to incorporate low emission housing design, investigating the use and efficacy of biological slurry additives, and optimising the anaerobic digester. The licensee shall implement this odour management programme with the agreement of the Agency, within a specified timeframe. The odour management programme shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the AER. A report on the programme, including the success in meeting odour reduction on site, shall be prepared and submitted to the Agency as part of the AER.

- 5.6 The following odour control measures shall be implemented upon commencement of anaerobic digestion operations on site:
- (i) All doors of the Reception Building shall be closed during tipping of imported waste/materials within the reception area and negative pressure shall be maintained within the building.
 - (ii) Air displaced from the Reception Building shall be vented to a biofilter.
 - (iii) The reception area of waste/materials shall be washed down at least at the end of each working day, unless otherwise agreed by the Agency, and all washwater shall be diverted to the mixing tank.

Reason: To provide for the protection of the environment by way of control and limitation of emissions.

Condition 6. Control and Monitoring

- 6.1 Test Programme
- 6.1.1 The licensee shall prepare to the satisfaction of the Agency, a test programme for abatement equipment installed to abate emissions to atmosphere. This programme shall be submitted to the Agency in advance of implementation.
 - 6.1.2 The programme, following agreement with the Agency, shall be completed within three months of the commencement of operation of the **anaerobic digester and associated emissions abatement equipment**.
 - 6.1.3 The criteria for the operation of the **anaerobic digester and associated emissions abatement equipment** as determined by the test programme, shall be incorporated into the standard operating procedures and **Schedule C.7 Control of Anaerobic Digester, of this licence**.
 - 6.1.4 The test programme shall as a minimum:
 - (i) establish all criteria for operation, control and management of the abatement equipment to ensure compliance with the emission limit values specified in this licence; and
 - (ii) assess the performance of any monitors on the **anaerobic digester and associated emissions abatement equipment** and establish a maintenance and calibration programme for each monitor.
 - 6.1.5 A report on the test programme shall be submitted to the Agency within one month of completion.
- 6.2 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring*, of this licence.
- 6.2.1 Analyses shall be undertaken by competent staff in accordance with documented operating procedures.
 - 6.2.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.
 - 6.2.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.
 - 6.2.4 Where any analysis is sub-contracted it shall be to a competent laboratory.
- 6.3 The licensee shall ensure that:
- (i) sampling and analysis for all parameters listed in the Schedules to this licence; and
 - (ii) any reference measurements for the calibration of automated measurement systems;

shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards that will ensure the provision of data of an equivalent scientific quality shall apply.

- 6.4 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. The use of alternative equipment, other than in emergency situations, shall be as agreed by the Agency.
- 6.5 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission/discharge (or ambient conditions where that is the monitoring objective).
- 6.6 The licensee shall ensure that groundwater monitoring well sampling equipment is available/installed on-site and is fit for purpose at all times. The sampling equipment shall be to Agency specifications.
- 6.7 All treatment/abatement and emission control equipment shall be calibrated and maintained in accordance with the instructions issued by the manufacturer/supplier or installer.
- 6.8 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.
- 6.9 The licensee shall prepare a programme, to the satisfaction of the Agency, for the identification and reduction of fugitive emissions **at the anaerobic digestion plant** using an appropriate combination of best available techniques. This programme shall be included in the Environmental Management Programme.
- 6.10 The licensee shall complete an assessment of underground and overground effluent storage tanks, including integrity and water tightness testing, pipelines and liquid feed storage tanks within twelve months of date of grant of this licence, and at least once every five years thereafter. In the case of new storage facilities installed on site, the assessment shall be undertaken in advance of utilisation. A report on such assessment shall be included in the AER, together with proposals for repair of any significant defects found.
- 6.11 **An inspection for leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be carried out weekly following commencement of the operation of the anaerobic digester. A log of such inspections shall be maintained.**
- 6.12 **The licensee shall from date of commencement of the anaerobic digester, to the satisfaction of the Agency, undertake the following:**
 - 6.12.1 **sample and analyse the digestate and the solid fraction, separated from the slurry, to establish the concentration of nutrients present in each fraction; and**
 - 6.12.2 **prepare a mass balance of the nutrients removed from slurry at each stage of the anaerobic treatment process and calculate the resulting concentration of nutrients in the digestate and solid fraction.**

The licensee shall incorporate the above results in Condition 8.12.1 of this licence, subject to the agreement of the Agency.
- 6.13 **Geomembrane-lined Digestate/Slurry Storage Basins**
 - 6.13.1 **The licensee shall undertake a visual inspection of the leak detection inspection chambers on a weekly basis. The licensee shall maintain a record of these inspections on-site for inspection by authorised personnel of the Agency at all reasonable times.**
 - 6.13.2 **The licensee shall undertake analysis of any discharge from the leak detection inspection chambers on a biannual basis as specified in *Schedule C.2.4 Monitoring of Manure Storage Basin Leak Detection Inspection Chamber*, of this licence.**

- 6.13.3 **The licensee shall ensure that adequate infrastructure is in place to contain slurry/manure/digestate in the event of a spillage or overflow from the basins.**
- 6.14 The licensee shall ensure that all slurry/manure/digestate generated on-site is stored in a manner which does not pollute ground or surface waters.
- 6.15 Storm Water
- 6.15.1 A visual examination of the storm water discharge shall be carried out weekly. A log of such inspections shall be maintained.
- 6.15.2 The drainage system (i.e., gullies, manholes, any visible conduits and such other aspects as may be agreed) and bunds, silt traps and oil separators shall be inspected weekly, desludged as necessary and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal. The drainage system and bunds, silt traps and oil interceptors shall be properly maintained at all times.
- 6.15.3 The licensee shall provide and subsequently maintain a rainwater collection and drainage system for all pig housing on-site, **for the reception building and for the anaerobic digestion plant.**
- 6.15.4 The licensee shall divert all uncontaminated surface water run-off from roofs and non-contaminated impervious areas of the site, to the surface water drainage system. Following reconstruction/construction at the installation this drainage system shall discharge through **four** outfalls as identified in *Schedule C.2.3 Monitoring of Storm Water Emissions*. The licensee shall provide and maintain an inspection chamber(s) at the outlet(s) of the surface water drainage system.
- 6.15.5 There shall be no unauthorised discharge of polluting matter to water.
- 6.15.6 The licensee shall monitor storm water discharges in accordance with *Schedule C.2.3 Monitoring of Storm Water Emissions* of this licence. The results of monitoring shall be reported annually as part of the AER.
- 6.16 The licensee shall ensure that a freeboard of at least 200 mm from the top of each covered slurry/manure/digestate storage tank and 300 mm from the top of uncovered slurry/manure/digestate storage tanks is maintained, as a minimum, at all times. The required freeboard shall be clearly indicated in the tank.
- 6.17 Underground, partly underground or overground concrete storage facilities shall conform to the Department of Agriculture, Fisheries and Food specifications (i.e. S108, S123) or equivalent standard. **Monitoring of Leak Detection Chambers shall be undertaken in accordance with *Schedule C.2.5 Monitoring of Tank Leak Detection Inspection Chambers, of this licence.***
- 6.18 Where overground storage facilities are utilised, the licensee shall, with the agreement of the Agency –
- (i) provide tanks with two lockable valves in line;
 - (ii) provide an appropriate reception pit with level alarm;
 - (iii) provide an external safety ladder and railed platform to facilitate inspection;
 - (iv) undertake measures as necessary for the protection of tanks from damage by vehicles or trailers, and
 - (v) provide a partial earthen bund to ensure sufficient protection of the clean water outfall in the event of tank overflow, collapse or leakage.
- 6.19 Monitoring of available storage capacity for slurry/manure/digestate shall be undertaken as outlined in *Schedule C.4 Waste and Slurry/Manure/Digestate Monitoring*. Results shall be retained on-site and records of the results shall be available for inspection by authorised personnel, including Agency personnel, at all reasonable times. The results shall be submitted to the Agency in a summary report included as part of the AER.

- 6.20 **The efficiency of the CHP plant gas boiler and the standby boiler shall be tested, at least annually, following commissioning. The results of boiler efficiency testing shall be reported annually as part of the AER.**
- 6.21 **Groundwater**
The licensee shall carry out groundwater monitoring in accordance with *Schedule C.6 Ambient Monitoring*, of this licence. The results of such monitoring shall be reported annually as part of the AER.
- 6.22 **Noise**
- 6.22.1 The licensee shall carry out a noise survey of the site operations as required by the Agency and **within three months of the date of commencement of the anaerobic digester process**. The survey programme shall be undertaken in accordance with the methodology specified in the 'Environmental Noise Survey Guidance Document' published by the Agency.
- 6.22.2 **The licensee shall put in place such measures as are necessary to ensure compliance with the noise limits values specified in this licence.**
- 6.23 **Pollutant Release and Transfer Register (PRTR)**
The licensee shall prepare and report a PRTR for the site. The substance and/or wastes to be included in the PRTR shall be as agreed by the Agency each year by reference to EC Regulations No. 166/2006 concerning the establishment of the European Pollutant Release and Transfer Register. The PRTR shall be prepared in accordance with any relevant guidelines issued by the Agency and shall be submitted electronically in specified format and as part of the AER.

Reason: *To provide for the protection of the environment by way of treatment and monitoring of emissions.*

Condition 7. Resource Use and Energy Efficiency

- 7.1 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this licence. The audit shall be carried out in accordance with the guidance published by the Agency, "Guidance Note on Energy Efficiency Auditing". The energy efficiency audit shall be repeated at intervals as required by the Agency.
- 7.2 The audit shall identify all practicable opportunities for energy use reduction and efficiency and the recommendations of the audit will be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.
- 7.3 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible. Reductions in water usage shall be incorporated into Schedule of Environmental Objectives and Targets.
- 7.4 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets.

Reason: *To provide for the efficient use of resources and energy in all site operations.*

Condition 8. Materials Handling

- 8.1 Disposal or recovery of waste on-site shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.
- 8.2 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor or an exempted person (Waste Management (Collection Permit) Regulations, 2007-2008). The waste shall be transported from the site of the activity to the site of recovery/disposal only in a manner which will not adversely affect the environment. Such transportation shall be in accordance with the appropriate National and European legislation and protocols.
- 8.2.1 Animal tissue or carcasses sent off site for disposal/recovery shall be transported in covered, leak-proof containers.
- 8.3 The transport of slurry/manure/digestate via the public road shall be carried out in sealed containers such that no spillage can occur.
- 8.4 The licensee shall ensure that, in advance of transfer to another person, waste shall be classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.
- 8.5 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off. **There shall be a dedicated reception building for receipt of imported waste/materials which shall be vented to (an) adequately sized biofilter(s).**
- 8.6 Waste shall be stored in designated areas, protected as may be appropriate against spillage and leachate run-off. The waste shall be clearly labelled and appropriately segregated.
- 8.7 **Slurry/manure/digestate for recovery off-site shall be analysed in accordance with Schedule C: Control & Monitoring of this licence.**
- 8.8 No waste classified as green list waste in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended) shall be consigned for recovery without the agreement of the Agency.
- 8.9 Unless approved in writing, in advance, by the Agency the licensee is prohibited from mixing a hazardous waste of one category with a hazardous waste of another category or with any other non-hazardous waste.
- 8.10 Animal tissue or carcasses stored on-site pending disposal shall be placed in covered, leak-proof containers and shall at a minimum be removed fortnightly.
- 8.11 The licensee shall neither import waste into the State nor export waste out of the State except in accordance with the relevant provisions of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14th June 2006 on shipments of waste and associated national regulations.
- 8.12 Slurry/Manure/Digestate shall only be recovered by landspreading subject to the following conditions:
- 8.12.1 The licensee shall maintain on-site, for inspection by authorised persons, and submit to the Agency, within three months of the date of grant of this licence and thereafter by the first of March annually, the following information:
- (i) A calculation of the predicted slurry production for the current calendar year (1st January to 31st December) based on the animal numbers predicted to be housed at the installation during the current calendar year. The licensee shall, based on the above, calculate the predicted quantity of nitrogen and phosphorus to be generated during the current calendar year; and
 - (ii) A summary table of customer farmers who may receive slurry/manure in the current calendar year. The table shall include as a minimum the 'Customer Farmer's Code' (Customer farmer's name shall be maintained on-site), and 'Quantity of Slurry (m³)' (that may be used/recovered on the customer farmer's land in the current calendar year).

- 8.12.2 The Summary table (referred to in condition 8.12.1(ii)) may be updated during the calendar year, based on a nutrient management plan or Nitrogen and Phosphorus Statement, to include additional customer farmers who may seek to receive slurry/manure during the year.
 - 8.12.3 The licensee shall maintain on site, for inspection by authorised persons, a current nutrient management plan or Nitrogen and Phosphorus Statement for all customer farmers' lands on which slurry/manure may be recovered in the current calendar year. The Nitrogen and Phosphorus statements or nutrient management plan shall demonstrate, to the satisfaction of the Agency, a nutrient need equal to or greater than the quantity of slurry/manure (and nutrients) predicted to be generated at the installation under Condition 8.12.1(i) above. Nutrient management plans may be based on Nitrogen and Phosphorus statements issued by the Department of Agriculture, Fisheries and Food.
 - 8.12.4 Soil monitoring shall be undertaken as outlined in *Schedule C.6 Ambient Monitoring, C.6.2 Land Used for Landspreading* of this licence where nutrient management plans, required under condition 8.12.3 are based on soil monitoring results. A summary report of soil monitoring results shall be maintained on-site as part of the nutrient management plan required under condition 8.12.3 above.
 - 8.12.5 Slurry shall only be supplied to customer farmers for whom a current nutrient management plan or Nitrogen and Phosphorus statement is maintained on-site.
- 8.13 Waste/Material Acceptance and Characterisation Procedures**
- 8.13.1 Prior to the commencement of waste/material acceptance at the installation, the licensee shall establish and maintain detailed written procedures for the acceptance and handling of wastes.
 - 8.13.2 Waste/material arriving at the installation shall be inspected and documented prior to unloading and/or tipping within the reception building. Only after such inspections shall the waste be processed for recovery.
 - 8.13.3 The licensee shall ensure that incoming waste/material is stored in a manner to prevent nuisance from odour, dust, vermin, birds, etc.
 - 8.13.4 Any waste/material deemed unsuitable for processing at the installation and/or in contravention of this licence shall be immediately separated and removed from the installation at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area. Waste/material shall be stored under appropriate conditions in the quarantine area to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition.
 - 8.13.5 Waste/material shall only be accepted at the installation from known customers or new customers subject to initial waste/material profiling and waste characterisation off-site. The written records of this off-site waste/material profiling and characterisation shall be retained by the licensee for all active customers and for a two year period following termination of licensee/customer agreements.

Reason: *To provide for the appropriate handling of material and the protection of the environment.*

Condition 9. Accident Prevention and Emergency Response

- 9.1 The licensee shall, within six months of date of grant of this licence, ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in

relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.

9.2 The licensee shall, maintain a documented Emergency Response Procedure is in place, that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.

9.3 Incidents

9.3.1 In the event of an incident the licensee shall immediately:

- (i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
- (ii) isolate the source of any such emission;
- (iii) evaluate the environmental pollution, if any, caused by the incident;
- (iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
- (v) identify the date, time and place of the incident;
- (vi) notify the Agency and other relevant authorities.

9.3.2 The licensee shall provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency, to:

- (i) identify and put in place measures to avoid recurrence of the incident; and
- (ii) identify and put in place any other appropriate remedial actions.

Reason: *To provide for the protection of the environment.*

Condition 10. Decommissioning & Residuals Management

10.1 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery any soil, subsoil, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.

10.2 Decommissioning Management Plan (DMP)

10.2.1 The licensee shall prepare, to the satisfaction of the Agency, a fully detailed and costed plan for the decommissioning or closure of the site or part thereof. This plan shall be submitted to the Agency for agreement within six months of the date of commencement of anaerobic digestion.

10.2.2 The plan shall be reviewed annually and proposed amendments thereto notified to the Agency for agreement as part of the AER. No amendments may be implemented without the agreement of the Agency.

10.2.3 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Decommissioning Management Plans and Financial Provision when implementing Condition 10.2.1 above.

10.3 The Decommissioning Management Plan shall include, as a minimum, the following:

- (i) a scope statement for the plan;
- (ii) the criteria that define the successful decommissioning of the activity or part thereof, which ensures minimum impact on the environment;
- (iii) a programme to achieve the stated criteria;
- (iv) where relevant, a test programme to demonstrate the successful implementation of the decommissioning plan; and

- (v) details of the costings for the plan and the financial provisions to underwrite those costs.
- 10.4 A final validation report to include a certificate of completion for the Decommissioning Management Plan, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

Reason: *To make provision for the proper closure of the activity ensuring protection of the environment.*

Condition 11. Notification, Records and Reports

- 11.1 **The licensee shall notify the Agency, in writing, three months in advance of the intended date of commencement of acceptance of waste/materials for anaerobic digestion.**
- 11.2 The licence shall notify the Agency by both telephone and facsimile, if available, to the Agency's headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:
- (i) any release of environmental significance to atmosphere from any potential emissions point including bypasses;
 - (ii) any emission that does not comply with the requirements of this licence;
 - (iii) any malfunction or breakdown of key control equipment or monitoring equipment set out in *Schedule C: Control and Monitoring*, of this licence which is likely to lead to loss of control of the abatement system; and
 - (iv) any incident with the potential for environmental contamination of surface water or groundwater, or posing an environment threat to air or land, or requiring an emergency response by the Local Authority.
- The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions.
- 11.3 In the case of any incident relating to discharges to water, the licensee shall notify the Local and Water Services Authority and the Inland Fisheries Ireland as soon as practicable after such an incident.
- 11.4 The licensee shall make a record of any incident. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident. The record shall include all corrective actions taken to manage the incident, minimise wastes generated and the effect on the environment, and avoid recurrence. The licensee shall, as soon as practicable following incident notification, submit to the Agency the incident record.
- 11.5 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.
- 11.6 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the installation.
- 11.7 The licensee shall as a minimum keep the following documents at the site:
- (i) the licences relating to the installation;
 - (ii) the current EMS for the installation;
 - (iii) the previous year's AER for the installation;
 - (iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the installation;

- (v) relevant correspondence with the Agency;
- (vi) up-to-date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points;
- (vii) up-to-date Standard Operational Procedures for all processes, plant and equipment necessary to give effect to this licence or otherwise to ensure that standard operation of such processes, plant or equipment does not result in unauthorised emissions to the environment;
- (viii) any elements of the licence application or EIS documentation referenced in this licence.

This documentation shall be available to the Agency for inspection at all reasonable times.

- 11.8 The licensee shall submit to the Agency, by the 31st March of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule D: Annual Environmental Report*, of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.
- 11.9 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall be maintained on a monthly basis and shall as a minimum contain details of the following:
- (i) the tonnages and EWC Code for the waste materials imported **to the installation (AD)** and/or sent off-site for disposal/recovery;
 - (ii) the names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number);
 - (iii) details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its permit/licence details and issuing authority, if required;
 - (iv) written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site;
 - (v) details of all waste consigned abroad for Recovery and classified as 'Green' in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended). The rationale for the classification must form part of the record;
 - (vi) details of any rejected consignments;
 - (vii) details of any approved waste mixing;
 - (viii) the results of any waste analyses required under *Schedule C: Control & Monitoring*, of this licence; and
 - (ix) the tonnage and EWC Code for the waste materials recovered/disposed on-site.
- 11.10 The licensee shall maintain an 'organic fertiliser register' to the satisfaction of the Agency, showing, as a minimum, details in accordance with Article 23 of S.I. No. 610 of 2010 European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2010 and as otherwise specified by the Agency or Department of Agriculture, Fisheries and Food in accordance with the Regulations.
- 11.11 The licensee shall maintain a register of animal numbers housed at the installation. The register shall be devised to reflect the classes of animal specified in *Schedule A.3 Animal Numbers Housed at the Installation*. This register is to be updated weekly and available on-site for inspection by the Agency.
- 11.12 **The licensee shall submit a plan for the use of the solid/fibrous digestate and sulphate (associated with the gas purification unit) generated in the anaerobic digester, in advance of operation of the anaerobic digester, for agreement by the Agency. Thereafter a report on the use of these materials shall be included in the AER.**
- 11.13 The licensee shall submit report(s) as required by the conditions of this licence to the Agency's Headquarters in Wexford, or to such other Agency office as may be specified by the Agency.

- 11.14 All reports shall be certified accurate and representative by the installation manager or a nominated, suitably qualified and experienced deputy.

Reason: *To provide for the collection and reporting of adequate information on the activity.*

Condition 12. Financial Charges and Provisions

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of **€3,976**, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Environmental Protection Agency Acts 1992 to 2011. The first payment shall be a pro-rata amount for the period from the date of grant of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of grant of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Environmental Protection Agency Acts 1992 to 2011 and all such payments shall be made within one month of the date upon which demanded by the Agency.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased, the licensee shall contribute such sums as determined by the Agency to defray its costs in regard to items not covered by the said annual contribution.

12.2 Environmental Liabilities

12.2.1 The licensee shall as part of the AER, provide an annual statement as to the measures taken or adopted at the site in relation to the prevention of environmental damage, and the financial provisions in place in relation to the underwriting of costs for remedial actions following anticipated events (**including closure**) or accidents/incidents, as may be associated with the carrying on of the activity.

Reason: *To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.*

SCHEDULE A: Limitations

A.1 Waste Related Processes

The following waste related processes are authorised:

- Anaerobic digestion of pig slurry and imported waste/materials, subject to *Schedule A.2.1 Waste/Material Categories and Quantities of this licence.*
- Separation of liquid and solid/fibrous digestate by centrifuge.
- Storage of waste

No additions to these processes are permitted unless agreed in advance with the Agency.

A.2 Waste/Material Acceptance

A.2.1 Waste/Material Categories and Quantities

The approved list of waste/materials in the following table is without prejudice to any restrictions placed on the activity by the Department of Agriculture, Fisheries and Food, in relation to the processing of waste/materials comprising/containing Animal By-Products.

Waste/Material Type ^{Note 1}	Maximum (Tonnes Per Annum)
Flotation sludge from dairy processing plants	22,500
Belly grass material from meat factories (i.e. digestive tract contents separated from the digestive tract)	
Fish Waste ^{Note 2}	
Green crops (maize, grass, oil seed or corn)	
By-products of energy crop processing	
Chicken Litter	
Mill Waste	
Total	22,500

Note 1: Or other compatible waste/material to be agreed in advance by the Agency.

Note 2: Subject to approval of Department of Agriculture, Fisheries and Food

A.3 Animal Numbers Housed at the installation

Animal Class	Numbers from date of grant of licence ^{Note 1,2}
Farrows/Suckling Sows	220
Dry Sows	700
Gilts	109
Boars	12
Weaners	3850
Production Pigs	8000

Note 1: This excludes suckling pigs maintained on site.

Note 2: A 20% increase in the number of **production pigs** held on site, for a period not exceeding 2 weeks, is permissible. The frequency of such occurrences must be kept to a minimum. Any other variation in any of the animals numbers specified requires prior agreement from the Agency.

SCHEDULE B: Emission Limits

B.1 Emissions to Air

Emission Point Reference No: A1-1 (Biofilter)
Location: Adjacent to the Reception Building at the Anaerobic Digester

Parameter	Emission Limit Value
Ammonia	50 ppm
Amines	5 ppm
Mercaptans	5ppm



B.2 Emissions to Water

There shall be no emissions to water of environmental significance.

B.3 Emissions to Sewer

There shall be no process effluent emissions to sewer.

B.4 Noise Emissions

Daytime dB(A) L_{Aeq} (30 minutes)	Night-time dB(A) L_{Aeq} (30 minutes)
55 ^{Note 1}	45 ^{Note 1}

Note 1: There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity of any noise-sensitive location.



SCHEDULE C: Control & Monitoring

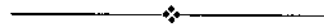
C.1.1. Control of Emissions to Air

Emission Point Reference No:

A1-1 (Biofilter)

Control Parameter	Monitoring	Key Equipment ^{Note 1}
Intake air flow (biofilter)	Differential pressure	Spare intake fan
Humidity	Humidity sensor	Spare pump/parts

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.



C.1.2. Monitoring of Emissions to Air

Emission Point Reference No:

A1-1 (Biofilter)

Parameter	Monitoring Frequency	Analysis Method/Technique
Visual inspection of bed ^{Note 1}	Weekly	Visual Inspection
Pressure drop across filter	Daily	Differential pressure gauge
Ammonia ^{Note 2}	Biannually	Colorimetric indicator tube
Hydrogen sulphide ^{Note 2}	Biannually	Colorimetric indicator tube
Mercaptans ^{Note 2}	Biannually	Colorimetric indicator tube
Amines	Biannually	Standard Method

Note 1: The biofilter beds shall be examined to ensure that no channelling or drying out of the bed material is evident. Turning, restructuring and dampening of the bed material and the addition of supplementary bed material, or total bed material replacement shall be carried out, as required, subject to bed performance.

Note 2: Analysis for the above parameters shall be carried out at the inlet and outlet to the biofilters. Outlet samples from the biofilters shall be collected in a hood or tent covering an area of 0.5 -2.0 square meters with an outlet of 50 - 100 mm, for sample collection. The hood/tent shall be left on the surface for at least ten minutes before the sample is collected. Samples shall be collected with the hood in various positions on the emitting surface to ensure the sample is representative. Analytical methods/techniques other than colorimetric indicator tubes may be specified by the Agency.



C.2.1. Control of Emissions to Water

There shall be no emissions to water of environmental significance.

C.2.2. Monitoring of Emissions to Water

There shall be no emissions to water of environmental significance.

C.2.3. Monitoring of Storm Water Emissions

Emission Point Reference No^{Note 1}:

Anaerobic digester site:

SW3, as identified on Drawing No.016 entitled "Tipperary Milling Co. Ltd Site Plan with stormwater routes".^{Note 2}

Breeding unit:

SW2 as identified on Drawing No. 001 entitled "Rev site plan Stormwater routes"

Production pig unit:

SW1 as identified on Drawing No. 003 entitled "Ballyknockane Pig Farm Site Plan – Stormwater layout"

Parameter	Monitoring Frequency	Analysis Method/Technique
COD or BOD	Quarterly	Standard method
Visual Inspection	Weekly	Sample and examine for colour and odour.

Note 1: The licensee shall provide monitoring points within the site boundary for all surface water discharges.

Note 2: Monitoring to commence from the date of the operation of the anaerobic digester.

C.2.4 Monitoring of Manure Storage Basins Leak Detection Inspection Chambers

Emission Point Reference No:

Anaerobic Digester site:

LD5 as identified on Drawing No. 017, entitled "Tipperary Milling Co. Ltd Leak Detection Monitoring Points".

Production pig Unit:

LD D as identified on Drawing No 004A, entitled "Ballyknockane Pig Farm Site Plan – Integrity Pipework layout".

Parameter	Monitoring Frequency ^{Note 1}	Analysis Method/Technique
COD or BOD	Biannually	Standard method
Nitrate (as N)	Biannually	Standard method
Total Coliforms	Biannually	Standard method
Visual Inspection	Weekly	Sample and examine for colour and odour.

Note 1: Monitoring to commence within three months of completion of construction.

C.2.5 Monitoring of Tank Leak Detection Inspection Chambers

- Emission Point Reference No:
- a. Anaerobic Digester site: LD1, LD2, LD3, and LD4 as identified on Drawing No. 017, entitled "*Tipperary Milling Co. Ltd Leak Detection Monitoring Points.*" (received 20 July 2010).
 - b. Production pig Unit: LD A, LD B and LD C, as identified on Drawing No 004A, entitled "*Ballyknockane Pig Farm Site Plan – Integrity Pipework layout*" (received 20 July 2010).

Parameter	Monitoring Frequency ^{Note 1}	Analysis Method/Technique
COD or BOD	Biannually	Standard method
Visual Inspection	Weekly	Sample and examine for colour and odour.

Note 1: Monitoring to commence within three months of completion of construction.



C.3.1. Control of Emissions to Sewer

There shall be no process effluent emissions to sewer.



C.3.2. Monitoring of Emissions to Sewer

There shall be no process effluent emissions to Sewer.



C.4 Waste and Slurry/Manure/Digestate Monitoring

Waste Monitoring Reference(s):

As labelled on Drawing No.016 entitled “*Tipperary Milling Co. Ltd Site Plan with stormwater routes*” (anaerobic digester), Drawing No. 003 entitled “*Ballyknockane Pig Farm Site Plan – Stormwater layout*” (production pig unit) and Drawing No. 001 entitled “*Rev site plan Stormwater routes*” (breeding unit) (received on 20 July 2010), of the application

Class	Frequency	Parameter	Monitoring Reference
Slurry/Manure/ Digestate	Weekly	Available storage capacity	Anaerobic Digester: Digestate Basin No. 1 and 2 and Secondary Digester, Material Tanks 1, 2 and 3. Production Pig Unit: Digestate Basin No.3. Fattening Houses A, B, C, 6 & 7 Breeding Unit: Farrowing House No. 2, Dry Sow Houses No. 4 and 10a, First Weaner House No.7. Second Stage Weaner Houses No. 14 and 15.
Slurry/Manure/ Digestate	Annually	Nutrients (N, P & K) ^{Note 1}	Untreated slurry Liquid digestate from secondary digester Solid fibrous digestate following separation
Other ^{Note 2}			

Note 1: Nutrient concentrations in the *Nitrates Regulations* (S.I. No. 610 of 2010) may be complied with as an alternative.

Note 2: Analytical requirements to be determined on a case by case basis.

C.5 Noise Monitoring

No additional noise monitoring is required in this schedule.

C.6 Ambient Monitoring

C.6.1 Groundwater Monitoring

Location : AGW4 (Anaerobic digester)
AGW1 (Breeding unit), AGW2 (Breeding unit) and
AGW3 (Breeding unit)
AGW1 (Production Pig unit) and AGW2
(Production Pig unit)

Parameter	Monitoring Frequency	Analysis Method/Techniques
COD	Biannually	Standard Method
Nitrate	Biannually	Standard Method
Total Ammonia	Biannually	Standard Method
Faecal Coliforms	Biannually	Standard Method
Total Coliforms	Biannually	Standard Method

C.6.2 Land used for Landspreading

Monitoring Location: All lands included in the landbank

Conditions	Monitoring Frequency ^{Note 2}	Analysis Method/Technique ^{Note 3 & 4}
Soil Sampling ^{Note 1}	Prior to the preparation of an NMP	Morgan's P test
	Every six years	Morgan's P test

Note 1: The sampling area shall not exceed 4 hectares. Exceptionally, where soil types and cropping of lands were similar during the previous years, a sample area of up to 8 hectares shall be deemed acceptable.

Note 2: The licensee may assume 'Index 3' for preparation of nutrient management plans.

Note 3: Peach, M. and English, L. (1944) 'Rapid micro chemical test'. *Soil Science* 57:167 or as otherwise specified by the Department of Agriculture, Fisheries and Food.

Note 4: Soil analysis shall only be carried out by a soil-testing laboratory that meets the requirements of the Department of Agriculture, Fisheries and Food.

C.7 Control of Anaerobic Digester

Description of Treatment: Anaerobic Digester ^{Note 2}

Control Parameter	Monitoring	Key Equipment ^{Note 1}
Reception (Mixing) Tank	SCADA Monitor (continuous)	Macerator Bar screen
Slurry/Waste Pumping	Manual control of pumps	Pump sets SCADA Control system
Feed Tanks	Slurry level (continuous)	Low, intermediate and high sensors/probes Induced aeration Overflow to slurry storage tanks
Dried solids content	Standard Methods (daily)	
Anaerobic Digestion System (Reactors)	SCADA Monitor (continuous)	
Temperature	Continuous	Heat exchangers
pH	Continuous	Temperature controls
PLC Control System		
Gas production	Continuous	Gas meter
Air concentration	Continuous	Oxygen meter
Combined Heat and Power Plant		
Operating temperature	Continuous	

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

Note 2: The extent of control may be amended, based on the outcome of the test programme undertaken in accordance with Condition 6.1, subject to the agreement of the Agency.

SCHEDULE D: Annual Environmental Report

Annual Environmental Report Content
Emissions from the installation
Waste management record.
Organic Fertiliser Register (Slurry/manure/digestate).
Nutrient management plan.
Nutrient mass balance calculated for the anaerobic digestion process.
Summary of waste and slurry/manure/digestate monitoring results.
Summary of storm water emissions monitoring results.
Resource consumption summary.
Complaints summary.
Schedule of Environmental Objectives and Targets.
Environmental management programme – report for previous year.
Environmental management programme – proposal for current year.
Development/Infrastructural works summary (completed in previous year or prepared for current year).
Ambient monitoring summary.
Noise monitoring report summary.
Tank and pipeline testing and inspection report.
Bund integrity test.
Feed composition and usage.
Boiler efficiency test results.
Pollutant Release and Transfer Register – report for previous year.
Pollutant Release and transfer Register – proposal for current year.
Fugitive emissions programme report.
Reported incidents summary.
Energy efficiency audit report summary.
Report on the assessment of the efficiency of use of raw materials in processes and the reduction in waste generated.
Report on progress made and proposals being developed to minimise water demand.
Resource use and energy programme.
Report on the use of solid/fibrous digestate and sulphate by-product.
Odour management programme and report.
Development/Infrastructural works summary (completed in previous year and/or prepared for current year).
Statement of measures in relation to prevention of environmental damage and remedial actions (Environmental Liabilities).
Any other items specified by the Agency.

Note 1: Content may be revised subject to the agreement of the Agency.

Sign Off for Final Licence Decisions

Signed on behalf of the said Agency _____
On the xx day of xxxxx, 200X xxxxxxxxxxxx **Authorised Person**

Sign Off for Final Licence Decisions

Sealed by the seal of the Agency on this the ** day of ** 200*.

**PRESENT when the seal of the Agency
Was affixed hereto:**

XXXX Director/Authorised Person

