Non-Technical Summary - Ashleigh Farms Ltd

Ballinameela, Cappagh, Dungarvan, Waterford

CHC 00179 Rev.01

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Project Quality Control Data Sheet

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Client	**Ashleigh Farm Ltd**
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	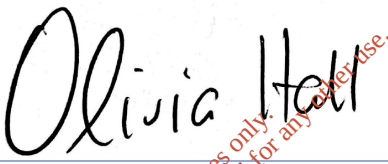	
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Contents

Non-Technical Summary

1.0 Introduction

This application is made by CHC Environmental Solutions to the Environmental Protection Agency (EPA) for an Industrial Emissions Licence on behalf of Ashleigh Farms Ltd, Ballinameela, Cappagh, Dungarvan, Waterford.

2.0 Facility Description

The facility has been in operation at the site in Ballinameela, Co Waterford since the early 1980's. Some alternations have been made to the site in the recent past including the development of a 900 sow pig unit in 1999, a new loose dry sow house in 2007 and an anaerobic digestor in 2016.

The unit is located in Ballinameela, Cappagh, Co Waterford, around 7km to the south east of the town of Cappoquin and 9.5km west of Dungarvan, Waterford. The site area (licensed area) is approximately 12 acres. The pig unit consists of 12 main pig unit buildings with a total floor area of approximately 14,000,2 as shown in Attachment 3.2 Site Plan.

The pig unit current accommodates 900 Sows (710 dry sows, 190 suckling sows), 4400 weaners, 5500 finishers and 100 maiden gilts. All pig buildings have slatted floors with mass concrete slurry tanks underneath. Also located on the site are several ancillary buildings, including feed tanks and silos and a site office buildings. The site also has a central open slurry storage tank located at the southern end of the site. The combined net capacity of all the slurry tanks exceeds the 26 weeks manure storage capacity as required by the European Union (good Agricultural practice for Protection of Waters) Regulations 2017 - S.I. No. 605 of 2017.

An industrial scale anaerobic digestion pilot plant is currently in operation at the site. Pig stock is not considered to be compatible with pig slurry as a feed stock, however, in 2016, an industrial scale pilot scale anaerobic digestor was established onsite, following 4 years of research into the development of a prototype Anaerobic Digestion and Microwave system with a novel process to generate biogas and digestate from pig slurry. Funding for this work was secures via the EU Seventh Framework Programme (FP7) and Horizon 2020. The environmental benefits of anaerobic digestion include a significant reduction in green house gas emissions and odour from pig slurry as well as being a sustainable energy solution for pig farmers.

3.0 Proposed Licence Activities

Ashleigh Farms Ltd, Ashleigh House, Ballinameela, Cappagh, Waterford are to applying to the Environmental Protection Agency (E.P.A.) to review an existing licence (P0447-01) for an intensive agriculture facility located at Ashleigh House, Ballinameela, Cappagh, Waterford. This Licence is being reviewed to accommodate the following.

1. Revision of the capacity numbers to account for improved production efficiencies achieved since the activity was first licensed
2. Amend site boundary to account for a dry sow house, developed onsite in 2007 that was only recently recognised to be located marginally outside the licenced activity boundary
3. Addition of a new Activity Class to regularise an Anaerobic Digestor (AD) unit operating onsite
4. Achieve regulatory approval for the planned installation of a fallen animal incineration unit onsite

The stock numbers at the facility are outlined in Table 3.1 below.

Table 3.1 Stock Numbers at Ashleigh Farms Ballinmeela Pig Unit

Pig type	Stock Numbers
Sows	900
Dry Sows	710
Suckling Sows	190
Maiden Gilts	100
Boars	10
Weaners	4400
Finishers	5500

Based on the animal numbers at the site, the unit would require an Industrial Emission licence. According to the First Schedule to EPA Act 1992, as amended, the unit falls under the following main activity class:

> *Activity Class 6.2 (b) The rearing of pigs in an installation where the capacity exceeds - (b) 2,000 places for production pigs which are over 30kg*

In addition, it is proposed to regularise the operation of the anaerobic digestion unit and establish a fallen animal incinerator at the site. It is proposed that these secondary activities would be regulated as:

> *Activity Class 11 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 licence under the said Part is or will be required.*

3.1 Technical Competence & Site Management

The unit Owner/Manager, Mr. Jason McGrath will be available at all times should any emergency arise regarding the unit. The staff at the unit are all technically experienced and qualified in the areas of animal husbandry/ animal welfare and site maintenance. They are also aware of the requirement for environmental management at the unit.

3.2 Environmental Management System

There is currently no Environmental Management System (EMS) in place at the site. It is intended that, an EMS system will be developed on site as required to achieve Industrial Emissions licence compliance requirements. The EMS will cover the required resources and systems required to ensure control and continuous improvement in the environmental management of the feed mill. It would be proposed that a review and update of the EMS would be carried out on a continuous basis.

3.3 Hours of Operation

The unit typically operates 24 hours a day, 7 days a week. Staff operating hours are primarily 08.00 to 18.00 Monday to Friday. A staff member is always on call for any out of operational duties that may arise or in case of an emergency (e.g., vet call out). The unit is operated so that only essential activities are carried out outside of these hours (e.g., automatic feeding and ventilation systems will be operating).

The activity does not come under the EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations (S.I. No. 74 of 2006) and a derogation under Section 86A(6) is not being sought for the facility.

3.4 Planning Authority

The planning authority for the site is Waterford County Council. An outline of the planning permissions for the site are outlined in table 3.4.1 below:

Table 3.4.1 Summary of Previous Developments at the site

Planning Reference	Date	Description
9957	1999	Construction of a 900 sow pig unit, including dry sow house (2 No.), extension to farrowing house (2 No.), Fattening House (4 NO.) and permission to retain Farrowing House (6 No.), Dry Sow House (4 No), Weaner House (1 No) and Fattening House (5 No) and also septic tank at Ballyinameela, Cappagh, Waterford
07193	2007	Construction of a new loose dry sow house and extension of farrowing house adjacent to existing units
16729	2016	Construction of an anaerobic digestor and organic fertiliser production unit

3.5 BAT Conclusions

The proposed development will continue to operate in such a way as to minimise environmental impacts as far as practicable. The operation of the facility will be carried out in accordance with good practice and Best Available Techniques (BAT) guidelines. This review has taken into account the Best Available Technology (BAT) Guidance Notes issued by the EPA "BATNEEC Guidance Note for the Pig Production Sector" and BAT Conclusions for Intensive Rearing of Poultry or Pigs. A listing of the BAT notes reviewed and deemed applicable to the proposed development as part of the operational requirements as an Industrial Emissions facility are provided in Section 4 of the IED licence application.

4.0 Facility Operations & Potential Environmental Impacts

4.1 Facility Operations

The producer operates a 900-sow integrated piggery facility. The rearing process is as follows:

a) Sows who have finished suckling their previous litter will be directed to the service area where artificial insemination will be undertaken. Several boars will be housed in the service area for simulation purposes as this have been shown to increase conception success.
b) Pregnant sows will be forwarded to the dry sow house where they will be houses for the duration of the 114-day gestation period.
c) Shortly before parturition, each sow will be moved to a pen in one of the farrowing houses. Following the birth of her litter, the sow will remain with the piglets for 4 weeks.
d) At four weeks, each litter will be transferred to the weaner house, while the sow will return to the service area.
e) Weaned pigs will be moved to one of the two fattening houses at 10 weeks of age. At this stage, each weaned pig will typically weight 35-40kg.
f) Pigs will be fattened in the fattening houses for 12 weeks, during which time their weight will rise to 100-110kg. At the end of this period, the fattened pigs, now 26 weeks old, will be loaded onto a truck for export.
g) From time-to-time female pigs (maiden gilts) will be retained onsite to replace sows lost through age. Prior to entry to the service area, each gilt will spend 1-2 weeks in a gilt area,

located adjacent to the service area, to allow her to become accustomed to the automated sow feeding system.

The producer's objective is to achieve a higher number of piglets produced annually by each sow using a Danish breed of pig, and by achieving high piglet survival rates through loose farrowing.

4.2 Feeding

Depending on the age, pigs will be fed one of several wet feed mixes developed by the applicant in consultation with a Danish firm specialising in pig feed supplements and minerals. These are produced at the producers own mill, located on their Kinsalebeg pig unit (P0651-01)/mill facility. Feed will be delivered via the producers own vehicle; thus timing of deliveries will be managed to minimise any potential impact. Pigs in each of the units will be feed with an automated feeding system.

4.3 Disease Control

The buildings are designed so that pigs will move in one direction through the facility as they age, thus minimising the transfer of disease from fattened pigs back through the farrowing unit.

The fattening house incorporates isolation pens including separate ventilation and manure containment. This zone will be used to house animals showing potential disease symptoms, or animals requiring observation or veterinary inspection. The likelihood of enzootic diseases will be minimal as the facility will be new and stocked at the outset with certified disease-free stock. The likelihood of disease outbreak will also be low as the facility will be restocked from within.

Finally, the producer is currently exploring options to manage carcasses disposal onsite, with the primary objective being disease control through the removal of vehicles that have been to other farm enterprises collecting animal carcasses.

4.4 Facility Emissions

As part of the licence application a Baseline Assessment Screening was completed and based on the site activities and materials and products used on site a full Baseline Assessment was not considered necessary.

The main environmental emissions from the proposed facility will be slurry waste from the operation of the unit. There are also potential noise and odour emissions from the operation of the unit. The clean surface water run-off from the office building, sheds and surrounding yard is directed to a storm water discharge point located to the south of the onsite buildings. SW1 is a drainage ditch located at the southern end of the site which drains to the River Brickey. Any soiled water that was used in the daily operational running off the pig unit, such as cleaning etc., is directed into the mass concrete slurry tanks onsite and not mixed with the clean storm water run-off. Surface water samples from the onsite surface water monitoring location SW1 (August 2020), indicates chemical oxygen demand (COD) concentrations of 4 mg/L.

4.5 Surface Water

The nearest surface water is the River Brickey, located 560m south of the site. The River Finsk is located 1.2km north east of the site.

4.6 Groundwater

Ashleigh Farms Ltd completed groundwater monitoring at the 3No. on-site groundwater wells as part of their quality requirements. The groundwater was analysed for COD, total ammonia, nitrate, Faecal Coliforms, E. coli and Enterococci. The analysis indicated no bacteriological impact on groundwater at the site (August 2020).

4.7 Sewer

There is no connection to a foul sewer mains system from the site and sanitary and sink wastewater from the site welfare facilities (i.e., toilets and canteen) is currently discharged to an on-site septic system. No wastewater from the yard or sheds is discharged to the septic system.

4.8 Air Emissions

Odour emissions, mainly associated with the release of ammonia from stored manure will be managed through onsite operational procedures as well as design features of the unit, including management of pig diet protein levels, addition of an odour management to feeds and the operation of the anaerobic digestor unit etc. In addition, Ashleigh Farms Ltd have implemented an Odour Management Plan at the P0447-01 Ballinameela Site, most recently updated In October 2020.

4.9 Noise Emissions

Noise emissions from the Ashleigh Farms Ballinmeela Unit are not envisioned to have an impact on sensitive receptors in the vicinity of the site. There have been no complaints relating to noise from any surrounding neighbours in the area.

4.10 Waste

The main waste produced at the Ashleigh Farms Ballinameela Unit is slurry from the pig rearing process. To ensure that the relevant legislative requirements are met and to minimise the risk of environmental impacts related to the land spreading of organic fertilizer the following is recommended as best practice to farmers for land spreading slurry.

- Organic fertiliser will be applied to land in as accurate and uniform a manner.
- The organic fertiliser will only be applied using low trajectory spreaders, band spreader or injection methods. Spray drift must be avoided and so the use of machinery with upward facing splash plate is not permitted.
- Organic fertiliser cannot be spread during the periods outlined in Part 4 of S.I. 605 of 2017 or when heavy rain is forecast within the next 48 hours.
- Land spreading will be carried out as early as possible in the growing season. This will maximise the uptake of nutrients by crops and thereby decrease the risk of pollution.
- The quantity of organic matter applied to land will not exceed the nitrogen and phosphorus requirements of the crop. The amount of organic matter applied to land, cannot exceed the limits outlined in Part 4 of S.I. 605 of 2017.
- Spreading will not be undertaken on lands delineated as Source Protection Areas where areas of extreme vulnerability classification are determined within the Outer Source Protection Area. Areas of high, moderate, or low vulnerability within the Outer Source protection area are subject to organic loading rates, as specified in the GSI Response Matrix for land spreading of organic waste.

Other wastes relate to site operations does not produce significant volumes of waste materials, but the process is monitored to ensure that waste production is minimised where possible. Wastes are produced from areas such as the administration office, stores and equipment maintenance are recovered or recycled where possible by a licensed or permitted waste contractor. Fallen animals are currently disposed of offsite, however, as part of the license review, it is planning to achieve regulatory approval to install an incinerator at the site, to dispose of fallen animals onsite.

5.0 Preventative Measures

There are a number of preventative and control measures in place at the Ashleigh Farms Ballinmeela Pig Unit to mitigate against potential pollution impacts from the facility. The Ashleigh Farms

Ballinmeela Pig Unit will continue the site management to identify and target areas of potential improvement to reduce environmental impacts as far as possible. The completion of monitoring as part of the IE licence and the operation of control measures will provide measures to allow the facility to comply with environmental quality standards.

5.1 Odour

One potential emission from the Ashleigh Farms Ballinmeela Pig Unit site will be associated with odour from the site operation and from the slurry extraction and land spreading process. Slurry from the sheds will be stored in under floor tanks before being transferred to the external central slurry storage tank. The contained nature of the slurry in the sheds will help reduce potential odour impacts on surrounding receptors.

Regular odour assessments are undertaken by on-site personal on a weekly basis at the site. These odour assessments follow the principles as laid out in the EPA Guidance note 5 "Odour Impact Assessment Guidance for EPA Licensed Sites". The EPA Guidance note describes a "sniff testing" approach to odour field assessment which requires a member of staff to use their own sense of smell to assess odours.

5.2 Noise

The current operations are not considered to be having an impact on the surrounding area or on noise sensitive receptors. However, to ensure that this remains the case a number of controls and preventative measures will be put in place to ensure minimal noise nuisance at the site. The proposed measures are outlined below:

- truck movements and slurry collections will be spread over the whole day to ensure that the noise impacts to noise sensitive receptors are spread over the working day.
- Doors at the plant will be closed to ensure that no unnecessary noise emissions occur

6.0 Environmental Emissions Monitoring

Environmental monitoring would be completed as required under the schedules of the Industrial Emissions Licence issued by the EPA. It would be intended that monitoring would be completed as set out below:

- Quarterly surface water sampling at the outlet SW1.
- Annual groundwater sampling from 3No. on-site wells

7.0 Site Operation Cessation

There are no unusual liabilities on the site such as contaminated land or groundwater. In the event of the enterprise having to cease operation then all pig feeding, pig production, pig manure production and waste production would also have ceased. There would be inputs still in stock such as feed in feed bins and medicines in store as well as there would be pigs in house and pig manure in tanks. There would also potentially be some of the wastes present, including fallen animals, veterinary waste etc.

Waste material would be removed to the approved contractors as would be the case during normal operation of the enterprise. Saleable pigs would be sold to pork processing factories or to other pig producers for finishing or as breeding stock. All remaining feed, natural gas and medicines would be returned/sold back to their respective suppliers.

All vacated pig buildings would be washed clean and all dirty water would be spread on farmland with the pig manure in compliance with S.I. No 31 of 2014. The unit would be left standing after making it

secure and there would be no adverse impact on the environment. It is very unlikely that such a situation will arise due to the high initial capital investment in developing the unit.