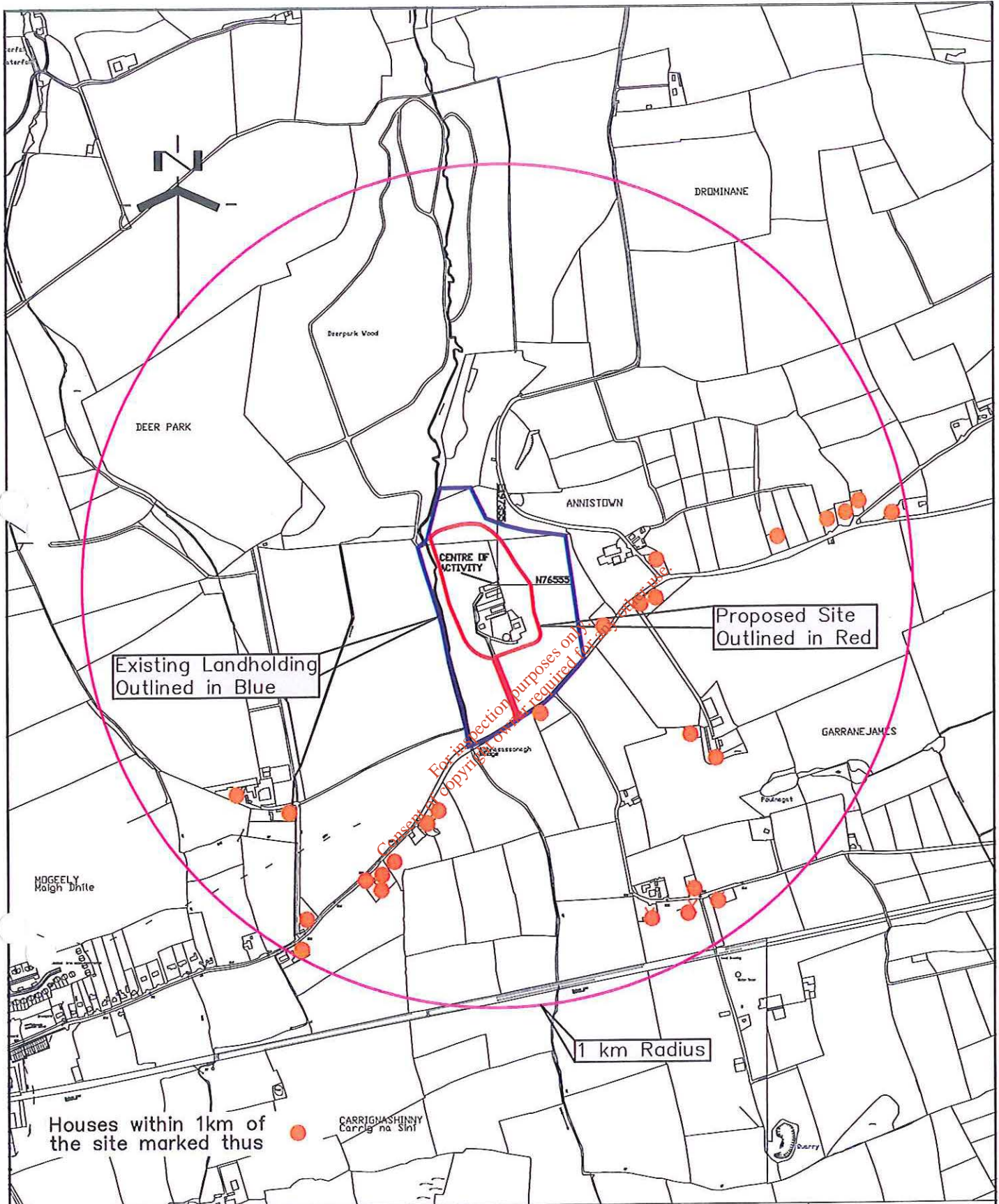


ATTACHMENT NO. I.1

RESIDENTIAL DWELLING HOUSES WITHIN 1 KM OF THE SITE

DRAWING NO. 214037 – MAP 2

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Client	Eoin O'Brien	Project	EPA Submission	Date	12.04.17
				Scale	1:12500@A4

Drawing Title	Proposed 1km Radius Site Plan			Drawing No	214037-Map 2
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ATTACHMENT NO. I.2
BASELINE SCREENING REPORT

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Baseline Report for application to review Licence number P0790-02

Introduction

Section 12 of the Industrial Emissions licence Application Form states that in the case of an activity that involves the use, production or release of hazardous substances (as defined in section 3 of the EPA Act 1992 as amended), and having regard to the possibility of soil and groundwater contamination at the site of the installation, provide a baseline report in accordance with section 86B of the EPA Act 1992 as amended.

The European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions identifies eight stages in producing a baseline report. The eight stages cover the following main elements; stages one to three decide whether a baseline report is required, stages four to seven determine how a baseline report has to be prepared and stage determines the content of the report.

The European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions states that where during stages one to three of producing a baseline report it is demonstrated on the basis of the available information that a baseline report is not required, there is no need to progress to the later stages.

The proposed activity to which this application relates will involve the use of two hazardous substances and will not involve the production or the release of any hazardous substances.

Stage 1

The European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions (2014/C 136/03) sets out that stage one of preparing a baseline report must identify which hazardous substances are used produced or released at the installation and produce a list of these hazardous substances.

The objective of this procedure is to determine whether or not hazardous substances are used, produced or released in view of deciding on the need to prepare and submit a baseline report.

There are no hazardous substances produced or released from the existing site. There will not be any hazardous substances produced or released from the proposed activity.

There are two hazardous substances as defined within Article 3 of Regulation (EC) No 1272/2008 that are used on the existing site the substances in question are diesel and fluorescent lights.

Diesel and fluorescent lights will continue to be used on site for the proposed activity.

Stage 2

The hazardous substances identified in stage one of the baseline report are both relevant hazardous substances as defined in Section 4.2 of the European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions (2014/C 136/03).

The objective of this stage of the report is to restrict further consideration to only the relevant hazardous substances in view of deciding on the need to prepare and submit a baseline report. Details of the hazardous substances to be used in the proposed activity are listed below.

1. Fluorescent Lights

Fluorescent light tubes contain mercury EC No. 231-106-7 which is listed as a hazardous substance under Article 3 of Regulation (EC) No 1272/2008.

2. Diesel

Diesel EC No. 302-695-9 is listed as a hazardous substance under article 3 of Regulation (EC) No 1272/2008.

Stage 3

In stage 3 the relevant hazardous substances brought forward from Stage 2 must be documented in terms of the actual possibility for soil or groundwater contamination at the site of the installation including the probability of releases and their consequences. The following factors will need to be taken into account

- The quantities of each hazardous substance or groups of similar hazardous substances concerned;
- How and where hazardous substances are stored, used and to be transported around the installation;
- Where they pose a risk to be released;
- In case of existing installations also the measures that have been adopted to ensure that it is impossible in practice that contamination of soil or groundwater takes place.

The objective of stage three is to identify which of the relevant hazardous substances represent a potential pollution risk at the site based on the likelihood of releases of such substances occurring. Information must be included in the baseline report for any such substances.

1. Fluorescent light tubes

Fluorescent light tubes will be used for lighting throughout the installation. The expired fluorescent light tubes will be carefully removed by the licensee and placed directly into an impervious container.

The impervious container will be carried to a designated store area with a concrete floor. The impervious storage container containing the used fluorescent tubes will be transported by van at regular intervals to the local civic amenity site. The used fluorescent tubes will be placed in the designated coffin at the civic amenity site.

These are the measures that have been adopted at the existing installation to ensure that it is impossible in practice that contamination of soil or groundwater takes place. These

measures will continue to be implemented on the activity proposed on this licence review application.

2. Diesel

Diesel will be stored on site for use in the onsite tractor and also as a fuel source for the backup electricity generator. The diesel storage tank will be double skinned in order to prevent leakage.

The diesel tank will be stored on a bunded area of impervious concrete. A supply of absorbent material will be stored on site to be used to soak up diesel in the event of a spillage to the bunded area.

In the event of a spillage to the bunded area taking place the used absorbent material will be removed to the local civic amenity site.

These are the measures that have been adopted at the existing installation to ensure that it is impossible in practice that contamination of soil or groundwater from diesel takes place. These measures will continue to be implemented on the activity proposed on this licence review application.

Conclusion

The proposed activity will not involve the production or release of any hazardous substances. Stages one to three of the baseline screening report for the proposed activity outlines how two relevant hazardous substances are used and stored on site namely fluorescent tubes and diesel.

The procedures adopted for usage of the relevant hazardous substances and the impervious storage areas used for them ensure that there is no potential pollution risk to either soil or groundwater at the site.

The measures will continue to be enforced with the proposed activity and will make it impossible for contamination of soil or groundwater to occur. It is for this reason that it is considered that a baseline report is not required.

ATTACHMENT NO 15
CONCLUSION ON BEST AVAILABLE TECHNIQUES

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Conclusion on BAT

Integrated Pollution Prevention and Control (IPPC) Reference Document on Best Available Techniques for Intensive Rearing of Poultry and Pigs – July 2003

<u>BAT Reference No.</u>	BAT Statement	Applicable	Proposal
5.1	<p>Good agricultural practice is an essential part of BAT. Although it is difficult to quantify environmental benefits in terms of emission reductions or reductions in the use of energy and water, it is clear that conscientious farm management will contribute to an improved environmental performance of an intensive pig farm. Good agricultural practice in the intensive rearing of pig and poultry.</p> <ol style="list-style-type: none"> 1. Identify and implement education and training programmes for farm staff. 2. Keep records of water and energy usage, amounts of livestock feed, waste arising and field applications of inorganic fertiliser and manure. 3. Have an emergency procedure to deal with unplanned emissions and incidents. 4. Implement a repair and maintenance programme to ensure that structures and equipment are in good working order and that facilities are kept clean 	Yes	<ol style="list-style-type: none"> 1. Staff training meetings will take place regularly on site and a register of meetings will be maintained. 2. Water, energy, feed and waste records will be maintained on site. Organic manure records will be maintained on site and will be submitted annually to the Department of Agriculture, Fisheries and Food in compliance with S.I. 31 of 2014. 3. Emergency procedures to deal with unplanned emissions and incidents will be enforced on site. 4. Repair and maintenance programme will be continuously in place on site as well as routine cleaning of buildings. Such procedures are necessary to maintain production efficiency, biosecurity and animal welfare as well as environmental performance. 5. Activities will be planned and carried out in an efficient manner so as to optimise the efficient use of resources and to minimise any potential disruption. 6. Manure will be used as an organic fertiliser by customer farmers and will be applied to their lands in compliance with S.I. 31 of 2014

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	<p>5. Plan activities at the site properly, such as the delivery of materials and the removal of products and waste</p> <p>6. Plan the application of manure to land properly</p>		
5.2.1	<p>Nutritional Techniques</p> <p>BAT is to apply feeding measures</p>	Yes	Diets will be formulated by professional animal nutritionists with a view to achieving the most efficient use of feed inputs to deliver optimum pig performance and to minimise the excretion of nitrogen and phosphorous. N and P excretion will be kept to a minimum by using low protein diets.
5.2.2	<p>Air Emissions from Pig Housing</p> <p>Designs to reduce ammonia emissions to air from pig housing systems basically involve some or all of the following principles:</p> <ol style="list-style-type: none"> 1. reducing emitting manure surfaces 2. Removing the manure from the pit to an external slurry store 3. Applying an additional treatment 4. Cooling the manure surface 5. Using surfaces which are smooth and easy to clean 	Yes	All proposed manure storage tanks will be covered and manure will be removed by vacuum to minimise odour. Houses will contain modern ventilation systems to circulate fresh air through the animal houses thus minimising odour. Surfaces will be smooth and easy to clean
5.2.3	<p>Water</p> <p>BAT is to reduce water use by doing all of the following:</p> <ol style="list-style-type: none"> 1. Cleaning animal housing and equipment with high pressure cleaners after each production cycle. Typically wash down water enters the slurry system and therefore it is important to find a balance between cleanliness and using as little water as possible. 	Yes	<ol style="list-style-type: none"> 1. Houses will be soaked prior to washing with high pressure cleaners. Soaked houses are easier to clean down with high pressure cleaners thus minimising the amount of water used by high pressure cleaners. 2. Water troughs will be appropriately calibrated for the stock using them and will be routinely checked and repaired or replaced where necessary.

	<ol style="list-style-type: none"> 2. Carry out regular calibration of the drinking water installation to avoid spill. 3. Keeping record of water use through metering of consumption, and 4. Detecting and repairing leakages 		<ol style="list-style-type: none"> 3. Water usage will be regularly monitored and recorded. 4. Staff will check water troughs for leakages on a daily basis when entering pens to carry out daily animal checks.
5.2.4	<p>Energy BAT for pig housing is to reduce energy usage by doing all of the following;</p> <ol style="list-style-type: none"> 1. Applying natural ventilation where possible; this needs proper design of the building and of the pens (i.e. microclimate in the pens) and spatial planning with respect to the prevailing wind directions to enhance the airflow, this applies only to new housing. 2. For mechanically ventilated houses: optimising the design of the ventilation system in each house to provide good temperature control and to achieve minimum ventilation rates in winter. 3. For mechanically ventilated houses: avoiding resistance in ventilation systems through frequent inspection and cleaning of ducts and fans, and 4. Applying low energy lighting 	Yes	<ol style="list-style-type: none"> 1. New housing will entail natural ventilation where possible however buildings will also require mechanical ventilation systems. 2. New housing will use natural ventilation as much as possible however when mechanical ventilation is used it will be controlled by an automated temperature control system to ensure that ventilation fans will be used efficiently. 3. Ducts and fans on the mechanical ventilation system will be regularly cleaned in order to prevent resistance in the system. 4. Fluorescent tube lighting will be used to achieve low energy lighting.
5.2.5	<p>Manure Storage BAT is to design storage facilities for pig manure with sufficient capacity until further treatment or land application can be carried out. The required capacity depends on the climate and the periods in which</p>	Yes	<ol style="list-style-type: none"> 1. The manure storage facilities proposed provide storage capacity for more than 26 weeks as is required under Statutory Instrument 31 OF 2014.

	application to land is not possible (As per S.I. 31 of 2014, this period is deemed to be 26 weeks.)		
5.2.6	On-farm manure processing In general on-farm processing of manure is BAT only under certain conditions (conditional BAT). The conditions in on-farm manure processing that determine if a technique is BAT are related with conditions such as the availability of land, local nutrient excess or demand, marketing possibilities	No	1. Deemed not to be BAT
5.2.7	Techniques for land spreading pig manure	Yes	1. Pig manure will be applied in compliance with S.I. 31 of 2014.
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Integrated Pollution Prevention and Control Reference Document on Best Available Techniques on Emissions from Storage – July 2006			
BAT Reference No	BAT Statement	Applicable	Proposal
5.1	Storage of Liquids BAT is for proper design, inspection, maintenance etc. BAT is to cover the tank. (Open top tanks) BAT for above ground tanks is to provide a bund	Yes	All proposed manure storage tanks will be covered tanks constructed in compliance with Department of Agriculture specifications No S101 & S144
5.2	Transfer and handling of liquids and liquefied gases BAT is to apply a tool to determine proactive maintenance plans and to develop risk-based inspection plans such as, the risk and reliability based maintenance approach	Yes	An alarm and automatic shut down system will be in place on the wet feed system. A system of leak detection will be installed under manure storage tanks.

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<u>Reference Document on Best Available Techniques for Energy Efficiency – February 2009</u>			
BAT Reference No	BAT Statement	Applicable	Proposal
4.2.1	BAT is to implement and adhere to an energy efficiency management system (ENEMS)	Yes	Energy is used for lighting, ventilation, heating and feed and water supply. The equipment being installed in the proposed housing will be modern energy efficient equipment. Natural ventilation will be used where possible and heating and mechanical ventilation systems will be thermostatically controlled in order to ensure that energy is used efficiently.
4.2.3	BAT is to optimise energy efficiency when planning a new installation, unit or system or a significant upgrade by considering all of the following; <ol style="list-style-type: none"> a. The energy efficient design (EED) should be initiated at the early stages of the conceptual design/basic design phase, even though the planned investments may not be well defined b. The development and/or selection of energy efficient technologies c. Additional data collection may need to be carried out as part of the design project or separately to supplement existing data or fill 	Yes	All proposed buildings have been designed with energy efficiency in mind. The project will entail well insulated energy efficient buildings and will include technologies that will be controlled and maintained to achieve energy efficiency. Achieving energy efficiency will be part of the regular staff training programme on site.

	<p>gaps in knowledge</p> <p>d. The EED work should be carried out by an energy expert</p> <p>e. The initial mapping of energy consumption should also address which parties in the project organisations influence the future energy consumption, and should optimise the energy efficiency design of the future plant with them. For example the staff in the (existing) installation who may be responsible for specifying design parameters.</p>		
4.2.8	BAT is to carry out maintenance at installations to optimise energy efficiency	Yes	Maintenance of buildings and equipment is a necessary part of running the enterprise efficiently. A maintenance programme will continue on the proposed installation.
4.3.10	BAT is to optimise artificial lighting systems by using the techniques such as those in Table 4.9 according to applicability	Yes	Only energy efficient systems of lighting will be used on the proposed installation.

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