

**CLW Environmental Planners Ltd.**

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Office of Environmental Sustainability,  
Environmental Protection Agency,  
P.O. Box 3000,  
Johnstown Castle Estate,  
Co. Wexford

3<sup>rd</sup> April 2018


**Re: Doon Farm Enterprises Ltd (P1024-02)  
Further Information response on above Licence Application**

Dear Sir/Madame,

Please find enclosed further information response for above application (original plus 1 hard copy and 2 electronic copies), submitted on behalf of Doon Farm Enterprises Ltd.

If you require any additional information, please contact this office.

Yours Faithfully,



Shane Brady B.Agr.Sc.

**Further Information Response:**

1. 2017 BAT Conclusion for intensive rearing of Poultry or Pigs. ( Appendix No 1)
2. All Applicable BAT Conclusions for Doon Farm Enterprises Ltd. (Appendix No 2)
3. Pig Places on the site at Doon, Agaglin, Kilworth, Co Cork.
  - (a) The site is an integrated pig farm which has accommodation for 500 sows as per Danish ECJ judgment case C585/10.
  - (b) As the site is integrated it will have accommodation for circa production pigs at circa 3500 pig places.
  - (c) Class 6.2 (b) applies to the installation as is in excess of limit production pigs.
4. In accordance with Regulation 9(2)(g);
  - (a) Annual Organic Fertiliser Production. (see Appendix 3).
  - (b) Slurry Storage Capacity on site. (see Appendix 4).
5. Organic Fertiliser Plan. (see Appendix 5).
6. Annual feed usage on site – circa 3750 tons  
Annual ESB usage on site – circa 214,000Kwh  
Annual Water usage on site – circa 13000m<sup>3</sup>
7. There is a groundwater well located outside the installation site boundary.
8. In accordance with Regulation 9(2)(n) (see Appendix No 7)
  - a. Assessment in accordance with Stages 1 to 3 of the European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions.
  - b. Baseline report in accordance with section 86B of the EPA Act.
9. There are no proposed developments on the site relating to this application. This is an existing pig farm operated by Doon Farm Enterprises Ltd.
10. See updated site layout (see Appendix No 6).
11. Storm water collection system is provided by means of roof guttering to storm water collection system marked in blue on site plan) running to a discharge point located on the site plan marked SW-1: E588849 N521133 (see Appendix No 6).



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## **Appendices**

- Appendix No. 1 ~ BAT Conclusions.**
- Appendix No. 2 ~ Applicable BAT Conclusions.**
- Appendix No. 3 ~ Slurry Production.**
- Appendix No. 4 ~ Slurry Storage Capacity.**
- Appendix No. 5 ~ Fertiliser Plan.**
- Appendix No. 6 ~ Updated Site Plan.**
- Appendix No. 7 ~ Baseline Reports.**

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# **Appendix No. 1**

## **BAT Conclusions**

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# Conclusions on BAT from the Emissions from Storage BAT Reference Document

## READ ME:

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

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

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

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

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

Use of terms:

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

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

BAT Guidance Notes are available on the EPA website.

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

The full and complete Emissions from Storage BAT reference document (July 2006) is available at the EIPPC Bureau website:

<http://eippcb.jrc.ec.europa.eu/reference/>

### SCOPE

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

Conclusions on BAT	Applicability Assessment (describe how the technique applies or not to your installation)	State whether it is in place or state schedule for implementation
<b>5.1 Storage of liquids and Liquefied gases</b> <b>5.1.1.1 General principles to prevent and reduce emissions</b>		
<b>BAT 1.</b> BAT for a proper design is to take into account at least the following: <ul style="list-style-type: none"> <li>• the physico-chemical properties of the substance being stored</li> <li>• how the storage is operated, what level of instrumentation is needed, how many operators are required, and what their workload will be</li> <li>• how the operators are informed of deviations from normal process conditions (alarms)</li> <li>• how the storage is protected against deviations from normal process conditions (safety instructions, interlock systems, pressure relief devices, leak detection and containment, etc.)</li> <li>• what equipment has to be installed, largely taking account of past experiences of the product (construction materials, valve quality, etc.)</li> </ul>	<b>Applicable</b>	<b>Yes</b>

<ul style="list-style-type: none"> <li>• which maintenance and inspection plan needs to be implemented and how to ease the maintenance and inspection work (access, layout, etc.)</li> <li>• how to deal with emergency situations (distances to other tanks, facilities and to the boundary, fire protection, access for emergency services such as the fire brigade, etc.).</li> </ul>		
<p><b>BAT 2.</b> BAT is to apply a tool to determine proactive maintenance plans and to develop risk-based inspection plans such as the risk and reliability based maintenance approach; see Section 4.1.2.2.1.</p>	<b>Applicable</b>	<b>Yes Leak Detection installed on new units</b>
<p><b>BAT3.</b> BAT is to locate a tank operating at, or close to, atmospheric pressure aboveground. However, for storing flammable liquids on a site with restricted space, underground tanks can also be considered. For liquefied gases, underground, mounded storage or spheres can be considered, depending on the storage volume.</p>	<b>Applicable</b>	<b>Yes Housing units require underground tanks</b>
<p><b>BAT 4.</b> BAT is to apply either a tank colour with a reflectivity of thermal or light radiation of at least 70 %, or a solar shield on aboveground tanks which contain volatile substances, see Section 4.1.3.6 and 4.1.3.7 respectively.</p>	<b>Not Applicable</b>	
<p><b>BAT 5.</b> BAT is to abate emissions from tank storage, transfer and handling that have a significant negative environmental effect, as described in Section 4.1.3.1</p>	<b>Applicable</b>	<b>No Agitation</b>
<p><b>BAT 6.</b> On sites where significant VOC emissions are to be expected, BAT includes calculating the VOC emissions regularly.</p>	<b>Not Applicable</b>	
<p><b>BAT 7.</b> BAT is to apply dedicated systems; see Section 4.1.4.4.</p>	<b>Applicable</b>	<b>Yes</b>
<p><b>5.1.1.2 Tank specific considerations</b></p>		
<p><b>Open top tanks</b> <b>BAT 8.</b> If emissions to air occur, BAT is to cover the tank by applying:</p> <ul style="list-style-type: none"> <li>• a floating cover, see Section 4.1.3.2</li> <li>• a flexible or tent cover, see Section 4.1.3.3, or</li> </ul>	<b>Not Applicable</b>	



<ul style="list-style-type: none"> <li>• a rigid cover, see Section 4.1.3.4.</li> </ul> <p>Additionally, with an open top tank covered with a flexible, tent or a rigid cover, a vapour treatment installation can be applied to achieve an additional emission reduction, see Section 4.1.3.15. The type of cover and the necessity for applying the vapour treatment system depend on the substances stored and must be decided on a case-by-case basis.</p>		
<p><b>BAT 9.</b> To prevent deposition that would call for an additional cleaning step, BAT is to mix the stored substance (e.g. slurry), see Section 4.1.5.1.</p>	<b>Not Applicable</b>	
<p><i>External floating roof tank</i> <b>BAT 10.</b> The BAT associated emission reduction level for a large tank is at least 97 % (compared to a fixed roof tank without measures), which can be achieved when over at least 95 % of the circumference the gap between the roof and the wall is less than 3.2 mm and the seals are liquid mounted, mechanical shoe seals.</p>	<b>Not Applicable</b>	
<p><b>BAT 11.</b> BAT is to apply direct contact floating roofs (double-deck), however, existing non-contact floating roofs (pontoon) are also BAT. See Section 3.1.2. A dome can be BAT for adverse weather conditions, such as high winds, rain or snowfall. See Section 4.1.3.5.</p>	<b>Not Applicable</b>	
<p><b>BAT 12.</b> For liquids containing a high level of particles (e.g. crude oil), BAT is to mix the stored substance to prevent deposition that would call for an additional cleaning step, see Section 4.1.5.1.</p>	<b>Not Applicable</b>	
<p><i>Fixed roof tanks</i> <b>BAT 13.</b> For the storage of volatile substances which are toxic (T), very toxic (T+), or carcinogenic, mutagenic and reproductive toxic (CMR) categories 1 and 2 in a fixed roof tank, BAT is to apply a vapour treatment installation.</p>	<b>Not Applicable</b>	
<p><b>BAT 14.</b> For other substances, BAT is to apply a vapour treatment installation, or to install an internal floating roof (see Sections 4.1.3.15 and 4.1.3.10 respectively). Direct contact floating roofs and non-contact floating roofs are BAT.</p>	<b>Not Applicable</b>	

<p><b>BAT 15.</b> For tanks &lt; 50 m<sup>3</sup>, BAT is to apply a pressure relief valve set at the highest possible value consistent with the tank design criteria.</p>	<p><b>Not Applicable</b></p>	
<p><b>BAT 16.</b> For liquids containing a high level of particles (e.g. crude oil) BAT is to mix the stored substance to prevent deposition that would call for an additional cleaning step, see Section 4.1.5.1.</p>	<p><b>Not Applicable</b></p>	
<p><b>Atmospheric horizontal tanks</b> <b>BAT 17.</b> For the storage of volatile substances which are toxic (T), very toxic (T+), or CMR categories 1 and 2 in an atmospheric horizontal tank, BAT is to apply a vapour treatment installation.</p>	<p><b>Not Applicable</b></p>	
<p><b>BAT 18.</b> For other substances, BAT is to do all, or a combination, of the following techniques depending on the substances stored:</p> <ul style="list-style-type: none"> <li>• apply pressure vacuum relief valves; see Section 4.1.3.11</li> <li>• up rate to 56 mbar; see Section 4.1.3.11</li> <li>• apply vapour balancing; see Section 4.1.3.13</li> <li>• apply a vapour holding tank, see Section 4.1.3.14, or</li> <li>• apply vapour treatment; see Section 4.1.3.15.</li> </ul> <p>The selection of the vapour treatment technology has to be decided on a case-by-case basis.</p>	<p><b>Not Applicable</b></p>	
<p><b>Pressurised storage</b> <b>BAT 19.</b> BAT for draining depends on the tank type, but may be the application of a closed drain system connected to a vapour treatment installation, see Section 4.1.4. The selection of the vapour treatment technology has to be decided on a case-by-case basis.</p>	<p><b>Not Applicable</b></p>	
<p><b>Lifter roof tanks</b> <b>BAT 20.</b> For emissions to air, BAT is to (see Sections 3.1.9 and 4.1.3.14):</p> <ul style="list-style-type: none"> <li>• apply a flexible diaphragm tank equipped with pressure/vacuum relief valves, or</li> </ul>	<p><b>Not Applicable</b></p>	

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<ul style="list-style-type: none"> <li>• apply a lifter roof tank equipped with pressure/vacuum relief valves and connected to a vapour treatment installation.</li> </ul> <p>The selection of the vapour treatment technology has to be decided on a case-by-case basis.</p>		
<p><b>Underground and mounded tanks</b></p> <p><b>BAT 21.</b> For the storage of volatile substances which are toxic (T), very toxic (T+), or CMR categories 1 and 2 in an underground or mounded tank, BAT is to apply a vapour treatment installation.</p>	<b>Not Applicable</b>	
<p><b>BAT 22.</b> For other substances, BAT is to do all, or a combination, of the following techniques, depending on the substances stored:</p> <ul style="list-style-type: none"> <li>• apply pressure vacuum relief valves; see Section 4.1.3.11</li> <li>• apply vapour balancing; see Section 4.1.3.13</li> <li>• apply a vapour holding tank, see Section 4.1.3.14, or</li> <li>• apply vapour treatment; see Section 4.1.3.15.</li> </ul> <p>The selection of the vapour treatment technology has to be decided on a case-by-case basis.</p>	<b>Not Applicable</b>	
<p><b>5.1.1.3 Preventing incidents and (major) accidents</b></p>		
<p><b>BAT 23.</b> BAT in preventing incidents and accidents is to apply a safety management system as described in Section 4.1.6.1.</p>	<b>Applicable</b>	<b>Will be updated to reflect licence requirements</b>
<p><b>BAT 24.</b> BAT is to implement and follow adequate organisational measures and to enable training and instruction of employees for safe and responsible operation of the installation as described in Section 4.1.6.1.1.</p>	<b>Applicable</b>	<b>Will be updated to reflect licence requirements</b>
<p><b>BAT 25.</b> BAT is to prevent corrosion by:</p> <ul style="list-style-type: none"> <li>• selecting construction material that is resistant to the product stored</li> <li>• applying proper construction methods</li> </ul>	<b>Applicable</b>	<b>Yes</b>



<ul style="list-style-type: none"> <li>• preventing rainwater or groundwater entering the tank and if necessary, removing water that has accumulated in the tank</li> <li>• applying rainwater management to bund drainage</li> <li>• applying preventive maintenance, and</li> <li>• where applicable, adding corrosion inhibitors, or applying cathodic protection on the inside of the tank.</li> </ul>		
<p><b>BAT 26.</b> Additionally for an underground tank, BAT is to apply to the outside of the tank:</p> <ul style="list-style-type: none"> <li>• a corrosion-resistant coating</li> <li>• plating, and/or</li> <li>• a cathodic protection system.</li> </ul>	<b>Not Applicable</b>	<b>Tank construction in line with Department of Agriculture, Food and The Marine Specifications.</b>
<p><b>BAT 27.</b> BAT is to prevent stress corrosion cracking (SCC) by:</p> <ul style="list-style-type: none"> <li>• stress relieving by post-weld heat treatment, see Section 4.1.6.1.4, and</li> <li>• <b>applying a risk based inspection as described in Section 4.1.2.2.1.</b></li> </ul>	<b>Remaining Not Applicable Section Highlighted – Applicable</b>	<b>N/a Leak detection system integrated into construction of new units</b>
<p><b>BAT 28.</b> BAT is to implement and maintain operational procedures – e.g. by means of a management system – as described in Section 4.1.6.1.5, to ensure that:</p> <ul style="list-style-type: none"> <li>• high level or high pressure instrumentation with alarm settings and/or auto closing of valves is installed</li> <li>• proper operating instructions are applied to prevent overfill during a tank filling operation, and</li> <li>• sufficient ullage is available to receive a batch filling.</li> </ul>	<b>Applicable</b>	<b>Will Be To be managed in line with E.P.A. requirements on other similar sites, including high level alarms / indicators.</b>
<p><b>BAT 29.</b> BAT is to apply leak detection on storage tanks containing liquids that can potentially cause soil pollution.</p>	<b>Applicable</b>	<b>Leak detection to be installed under all new structures.</b>
<p><b>BAT 30.</b></p>	<b>Not Applicable.</b>	

BAT is to achieve a 'negligible risk level' of soil pollution from bottom and bottom-wall connections of aboveground storage tanks. However, on a case-by-case basis, situations might be identified where an 'acceptable risk level' is sufficient.		
<b>BAT 31.</b> BAT for aboveground tanks containing flammable liquids or liquids that pose a risk for significant soil pollution or a significant pollution of adjacent watercourses is to provide secondary containment, such as: <ul style="list-style-type: none"> <li>• tank bunds around single wall tanks; see Section 4.1.6.1.11</li> <li>• double wall tanks; see Section 4.1.6.1.13</li> <li>• cup-tanks; see Section 4.1.6.1.14</li> <li>• double wall tanks with monitored bottom discharge; see Section 4.1.6.1.15.</li> </ul>	<b>Not Applicable</b>	
<b>BAT 32.</b> For building new single walled tanks containing liquids that pose a risk for significant soil pollution or a significant pollution of adjacent watercourses, BAT is to apply a full impervious, barrier in the bund, see Section 4.1.6.1.10.	<b>Not Applicable</b>	
<b>BAT 33.</b> For existing tanks within a bund, BAT is to apply a risk-based approach, considering the significance of risk from product spillage to the soil, to determine if and which barrier is best applicable. This risk-based approach can also be applied to determine if a partial impervious barrier in a tank bund is sufficient or if the whole bund needs to be equipped with an impervious barrier. See Section 4.1.6.1.11.	<b>Not Applicable</b>	
<b>BAT 34.</b> For chlorinated hydrocarbon solvents (CHC) in single walled tanks, BAT is to apply CHC-proof laminates to concrete barriers (and containments), based on phenolic or furan resins. One form of epoxy resin is also CHC-proof. See Section 4.1.6.1.12.	<b>Not Applicable</b>	
<b>BAT 35.</b> BAT for underground and mounded tanks containing products that can potentially cause soil pollution is to: <ul style="list-style-type: none"> <li>• apply a double walled tank with leak detection, see Section 4.1.6.1.16, or</li> <li>• to apply a single walled tank with secondary containment and leak detection, see Section 4.1.6.1.17.</li> </ul>	<b>Not Applicable</b>	<b>Manure storage tanks constructed to Dept. Of Agriculture, Food and The Marine Specifications.</b>
<b>BAT 36.</b>	<b>Not Applicable</b>	

For toxic, carcinogenic or other hazardous substances, BAT is to apply full containment.		
<b>5.1.2. Storage of packaged dangerous substances</b>		
<b>BAT 37.</b> BAT in preventing incidents and accidents is to apply a safety management system as described in Sections 4.1.6.1. The minimum level of BAT is to assess the risks of accidents and incidents on the site using the five steps described in Section 4.1.6.1	<b>Not Applicable</b>	<b>Not Stored on-site</b>
<b>BAT 38.</b> BAT is to appoint a person or persons who is or are responsible for the operation of the store.	<b>Not Applicable</b>	<b>Not Stored on-site</b>
<b>BAT 39.</b> BAT is to provide the responsible person(s) with specific training and retraining in emergency procedures as described in Section 4.1.7.1 and to inform other staff on the site of the risks of storing packaged dangerous substances and the precautions necessary to safely store substances that have different hazards.	<b>Not Applicable</b>	<b>Not Stored on-site</b>
<b>BAT 40.</b> BAT is to apply a storage building and/or an outdoor storage area covered with a roof, as described in Section 4.1.7.2. For storing quantities of less than 2500 litres or kilograms dangerous substances, applying a storage cell as described in Section 4.1.7.2 is also BAT.	<b>Not Applicable</b>	<b>Not Stored on-site</b>
<b>BAT 41.</b> BAT is to separate the storage area or building of packaged dangerous substances from other storage, from ignition sources and from other buildings on- and off-site by applying a sufficient distance, sometimes in combination with fire-resistant walls.	<b>Not Applicable</b>	<b>Not Stored on-site</b>
<b>BAT 42.</b> BAT is to separate and/or segregate incompatible substances. For the compatible and incompatible combinations see Annex 8.3.	<b>Not Applicable</b>	<b>Not Stored on-site</b>
<b>BAT 43.</b> BAT is to install a liquid-tight reservoir according to Section 4.1.7.5, that can contain all or a part of the dangerous liquids stored above such a reservoir. The choice whether all or only a part of the leakage needs to be contained depends on the	<b>Not Applicable</b>	<b>Not Stored on-site</b>



substances stored and on the location of the storage (e.g. in a water catchment area) and can only be decided on a case-by-case basis.		
<b>BAT 44.</b> BAT is to install a liquid-tight extinguishant collecting provision in storage buildings and storage areas according to Section 4.1.7.5. The collecting capacity depends on the substances stored, the amount of substances stored, the type of package used and the applied fire-fighting system and can only be decided on a case-by-case basis.	<b>Not Applicable</b>	<b>Not Stored on-site</b>
<b>BAT 45.</b> BAT is to apply a suitable protection level of fire prevention and fire-fighting measures as described in Section 4.1.7.6. The appropriate protection level has to be decided on a case-by-case basis in agreement with the local fire brigade.	<b>Not Applicable</b>	<b>Not Stored on-site</b>
<b>BAT 46.</b> BAT is to prevent ignition at source as described in Section 4.1.7.6.1.	<b>Not Applicable</b>	<b>Not Stored on-site</b>
<b>5.1.3 Basins and lagoons</b>		
<b>BAT 47.</b> Where emissions to air from normal operation are significant, e.g. with the storage of pig slurry, BAT is to cover basins and lagoons using one of the following options: <ul style="list-style-type: none"> <li>• a plastic cover; see Section 4.1.8.2</li> <li>• a floating cover; see Section 4.1.8.1, or</li> <li>• only small basins, a rigid cover; see Section 4.1.8.2.</li> </ul> Additionally, where a rigid cover is used, a vapour treatment installation can be applied to achieve an extra emission reduction, see Section 4.1.3.15. The need for and type of vapour treatment must be decided on a case-by-case basis.	<b>Not Applicable</b>	<b>No external storage tanks</b>
<b>BAT 48.</b> To prevent overfilling due to rainfall in situations where the basin or lagoon is not covered, BAT is to apply a sufficient freeboard, see Section 4.1.11.1.	<b>Not Applicable</b>	
<b>BAT 49.</b> Where substances are stored in a basin or lagoon with a risk of soil contamination, BAT is to apply an impervious barrier. This can be a flexible membrane, a sufficient clay layer or concrete, see Section 4.1.9.1	<b>Not Applicable</b>	
<b>5.2 Transfer and handling of liquids and liquefied gases</b>		
<b>5.2.1 General principles to prevent and reduce emissions</b>		

<p><b>BAT 50.</b> BAT is to apply a tool to determine proactive maintenance plans and to develop risk-based inspection plans such as, the risk and reliability based maintenance approach; see Section 4.1.2.2.1.</p>	<p><b>Applicable</b></p>	<p><b>Yes</b></p>
<p><b>BAT 51.</b> For large storage facilities, according to the properties of the products stored, BAT is to apply a leak detection and repair programme. Focus needs to be on those situations most likely to cause emissions (such as gas/light liquid, under high pressure and/or temperature duties). See Section 4.2.1.3.</p>	<p><b>Applicable</b></p>	<p><b>Leak Detection under all new structures.</b></p>
<p><b>BAT 52.</b> BAT is to abate emissions from tank storage, transfer and handling that have a significant negative environmental effect, as described in Section 4.1.3.1.</p>	<p><b>Not Applicable</b></p>	
<p><b>BAT 53.</b> BAT in preventing incidents and accidents is to apply a safety management system as described in Section 4.1.6.1.</p>	<p><b>Applicable</b></p>	<p><b>Yes</b></p>
<p><b>BAT 54.</b> BAT is to implement and follow adequate organisational measures and to enable the training and instruction of employees for safe and responsible operation of the installation as described in Section 4.1.6.1.1.</p>	<p><b>Applicable</b></p>	<p><b>Yes</b></p>
<p><b>5.2.2 Considerations on transfer and handling techniques</b> <b>5.2.2.1 Piping</b></p>		
<p><b>BAT 55.</b> BAT is to apply aboveground closed piping in new situations, see Section 4.2.4.1. For existing underground piping it is BAT to apply a risk and reliability based maintenance approach as described in Section 4.1.2.2.1.</p>	<p><b>Applicable</b></p>	<p><b>Will be To be considered upon the installation of any new infrastructure.</b></p>
<p><b>BAT 56.</b> BAT is to minimise the number of flanges by replacing them with welded connections, within the limitation of operational requirements for equipment maintenance or transfer system flexibility, see Section 4.2.2.1.</p>	<p><b>Not Applicable</b></p>	
<p><b>BAT 57.</b> BAT for bolted flange connections (see Section 4.2.2.2.) include:</p>	<p><b>Not Applicable</b></p>	

<ul style="list-style-type: none"> <li>• fitting blind flanges to infrequently used fittings to prevent accidental opening</li> <li>• using end caps or plugs on open-ended lines and not valves</li> <li>• ensuring gaskets are selected appropriate to the process application</li> <li>• ensuring the gasket is installed correctly</li> <li>• ensuring the flange joint is assembled and loaded correctly</li> <li>• where toxic, carcinogenic or other hazardous substances are transferred, fitting high integrity gaskets, such as spiral wound, kammprofile or ring joints.</li> </ul>		
<p><b>BAT 58.</b> BAT is to prevent corrosion by:</p> <ul style="list-style-type: none"> <li>• selecting construction material that is resistant to the product</li> <li>• applying proper construction methods</li> <li>• applying preventive maintenance, and</li> <li>• where applicable, applying an internal coating or adding corrosion inhibitors.</li> </ul>	<b>Applicable</b>	<b>Yes</b>
<p><b>BAT 59.</b> To prevent the piping from external corrosion, BAT is to apply a one, two, or three layer coating system depending on the site-specific conditions (e.g. close to sea). Coating is normally not applied to plastic or stainless steel pipelines. See Section 4.2.3.2.</p>	<b>Not Applicable</b>	
<p><b>5.2.2.2 Vapour treatment</b></p>		
<p><b>BAT 60.</b> BAT is to apply vapour balancing or treatment on significant emissions from the loading and unloading of volatile substances to (or from) trucks, barges and ships. The significance of the emission depends on the substance and the volume that is emitted, and has to be decided on a case-by-case basis. For more detail see Section 4.2.8.</p>	<b>Not Applicable</b>	
<p><b>5.2.2.3 Valves</b></p>		
<p><b>BAT 61.</b> BAT for valves include:</p> <ul style="list-style-type: none"> <li>• correct selection of the packing material and construction for the process application</li> <li>• with monitoring, focus on those valves most at risk (such as rising stem control valves in continual operation)</li> </ul>	<b>Not Applicable</b>	



<ul style="list-style-type: none"> <li>• applying rotating control valves or variable speed pumps instead of rising stem control valves</li> <li>• where toxic, carcinogenic or other hazardous substances are involved, fit diaphragm, bellows, or double walled valves</li> <li>• route relief valves back into the transfer or storage system or to a vapour treatment system.</li> </ul>		
<p><b>5.2.2.4 Pumps and compressors</b></p>		
<p><b>BAT 62.</b> The following are some of the main factors which constitute BAT:</p> <ul style="list-style-type: none"> <li>• proper fixing of the pump or compressor unit to its base-plate or frame</li> <li>• having connecting pipe forces within producers' recommendations</li> <li>• proper design of suction pipework to minimise hydraulic imbalance</li> <li>• alignment of shaft and casing within producers' recommendations</li> <li>• alignment of driver/pump or compressor coupling within producers' recommendations when fitted</li> <li>• correct level of balance of rotating parts</li> <li>• effective priming of pumps and compressors prior to start-up</li> <li>• operation of the pump and compressor within producers' recommended performance range (The optimum performance is achieved at its best efficiency point.)</li> <li>• the level of net positive suction head available should always be in excess of the pump or compressor</li> <li>• regular monitoring and maintenance of both rotating equipment and seal systems, combined with a repair or replacement programme.</li> </ul>	<p><b>Not Applicable</b></p>	
<p><b>BAT 63.</b> BAT is to use the correct selection of pump and seal types for the process application, preferably pumps that are technologically designed to be tight such as canned motor pumps, magnetically coupled pumps, pumps with multiple mechanical seals and a quench or buffer system, pumps with multiple mechanical seals and seals dry to the atmosphere, diaphragm pumps or bellow pumps. For more details see Sections 3.2.2.2, 3.2.4.1 and 4.2.9.</p>	<p><b>Not Applicable</b></p>	
<p><b>BAT 64.</b></p>	<p><b>Not Applicable</b></p>	



BAT for compressors transferring non-toxic gases is to apply gas lubricated mechanical seals.		
<b>BAT 65.</b> BAT for compressors, transferring toxic gases is to apply double seals with a liquid or gas barrier and to purge the process side of the containment seal with an inert buffer gas.	<b>Not Applicable</b>	
<b>BAT 66.</b> In very high pressure services, BAT is to apply a triple tandem seal system.	<b>Not Applicable</b>	
<b>5.2.2.5 Sampling connections</b>		
<b>BAT 67.</b> BAT, for sample points for volatile products, is to apply a ram type sampling valve or a needle valve and a block valve. Where sampling lines require purging, BAT is to apply closed-loop sampling lines. See Section 4.2.9.14.	<b>Not Applicable</b>	
<b>5.3 Storage of solids</b> <b>5.3.1 Open storage</b>		
<b>BAT 68.</b> BAT is to apply enclosed storage by using, for example, silos, bunkers, hoppers and containers, to eliminate the influence of wind and to prevent the formation of dust by wind as far as possible by primary measures. See Table 4.12 for these primary measures with cross-references to the relevant sections.	<b>Not Applicable</b>	
<b>BAT 69.</b> BAT for open storage is to carry out regular or continuous visual inspections to see if dust emissions occur and to check if preventive measures are in good working order. Following the weather forecast by, e.g, using meteorological instruments on site, will help to identify when the moistening of heaps is necessary and will prevent unnecessary use of resources for moistening the open storage. See Section 4.3.3.1.	<b>Not Applicable</b>	
<b>BAT 70.</b> BAT for long-term open storage are one, or a proper combination, of the following techniques: <ul style="list-style-type: none"> <li>• moistening the surface using durable dust-binding substances, see Section 4.3.6.1</li> <li>• covering the surface, e.g. with tarpaulins, see Section 4.3.4.4</li> <li>• solidification of the surface, see Table 4.13</li> </ul>	<b>Not Applicable</b>	

<ul style="list-style-type: none"> <li>• grassing-over of the surface, see Table 4.13.</li> </ul>		
<p><b>BAT 71.</b> BAT for short-term open storage are one, or a proper combination, of the following techniques:</p> <ul style="list-style-type: none"> <li>• moistening the surface using durable dust-binding substances, see Section 4.3.6.1</li> <li>• moistening the surface with water, see Sections 4.3.6.1</li> <li>• covering the surface, e.g. with tarpaulins, see Section 4.3.4.4.</li> </ul>	<b>Not Applicable</b>	
<b>5.3.2 Enclosed storage</b>		
<p><b>BAT 72.</b> BAT is to apply enclosed storage by using, for example, silos, bunkers, hoppers and containers. Where silos are not applicable, storage in sheds can be an alternative. This is, e.g. the case if apart from storage, the mixing of batches is needed.</p>	<b>Applicable</b>	<b>Yes</b>
<p><b>BAT 73.</b> BAT for silos is to apply a proper design to provide stability and prevent the silo from collapsing. See Sections 4.3.4.1 and 4.3.4.5.</p>	<b>Applicable</b>	<b>Yes</b>
<p><b>BAT 74.</b> BAT for sheds is to apply proper designed ventilation and filtering systems and to keep the doors closed. See Section 4.3.4.2.</p>	<b>Applicable</b>	<b>Yes</b>
<p><b>BAT 75</b> BAT is to apply dust abatement and a BAT associated emission level of 1 – 10 mg/m<sup>3</sup>, depending on the nature/type of substance stored. The type of abatement technique has to be decided on a case-by-case basis. See Section 4.3.7.</p>	<b>Not Applicable</b>	
<p><b>BAT 76.</b> For a silo containing organic solids, BAT is to apply an explosion resistant silo (see Section 4.3.8.3), equipped with a relief valve that closes rapidly after the explosion to prevent oxygen entering the silo, as described in Section 4.3.8.4.</p>	<b>Not Applicable</b>	
<b>5.3.4 Preventing incidents and (major) accidents</b>		
<p><b>BAT 77.</b> BAT in preventing incidents and accidents is applying a safety management system as described in Section 4.1.7.1.</p>	<b>Applicable</b>	<b>Yes</b>
<b>5.4 Transfer and handling of solids</b>		

<b>5.4.1 General approaches to minimise dust from transfer and handling</b>		
<b>BAT 78.</b> BAT is to prevent dust dispersion due to loading and unloading activities in the open air, by scheduling the transfer as much as possible when the wind speed is low. However, and taking into account the local situation, this type of measure cannot be generalised to the whole EU and to any situation irrespective of the possible high costs. See Section 4.4.3.1.	<b>Not Applicable</b>	
<b>BAT 79.</b> When applying a mechanical shovel, BAT is to reduce the drop height and to choose the best position during discharging into a truck; see Section 4.4.3.4.	<b>Not Applicable</b>	
<b>BAT 80.</b> BAT then is to adjust the speed of vehicles on-site to avoid or minimise dust being swirled up; see Section 4.4.3.5.2.	<b>Not Applicable</b>	
<b>BAT 81.</b> BAT for roads that are used by trucks and cars only, is applying hard surfaces to the roads of, for example, concrete or asphalt, because these can be cleaned easily to avoid dust being swirled up by vehicles, see Section 4.4.3.5.3. However, applying hard surfaces to the roads is not justified when the roads are used just for big shovel vehicles or when a road is temporary.	<b>Not Applicable</b>	
<b>BAT 82.</b> BAT is to clean roads that are fitted with hard surfaces according to Section 4.4.6.12.	<b>Not Applicable</b>	
<b>BAT 83.</b> Cleaning of vehicle tyres is BAT. The frequency of cleaning and type of cleaning facility applied (see Section 4.4.6.13) has to be decided on a case-by-case basis.	<b>Not Applicable</b>	
<b>BAT 84.</b> Where it neither compromises product quality, plant safety, nor water resources, BAT for loading/unloading drift sensitive, wettable products is to moisten the product as described in Sections 4.4.6.8, 4.4.6.9 and 4.3.6.1. Risk of freezing of the product, risk of slippery situations because of ice forming or wet product on the road and shortage of water are examples when this BAT might not be applicable.	<b>Not Applicable</b>	
<b>BAT 85.</b>	<b>Not Applicable</b>	



<p>For loading/unloading activities, BAT is to minimise the speed of descent and the free fall height of the product; see Sections 4.4.5.6 and 4.4.5.7 respectively. Minimising the speed of descent can be achieved by the following techniques that are BAT:</p> <ul style="list-style-type: none"> <li>• installing baffles inside fill pipes</li> <li>• applying a loading head at the end of the pipe or tube to regulate the output speed</li> <li>• applying a cascade (e.g. cascade tube or hopper)</li> <li>• applying a minimum slope angle with, e.g. chutes.</li> </ul>		
<p><b>BAT 86.</b> To minimise the free fall height of the product, the outlet of the discharger should reach down onto the bottom of the cargo space or onto the material already piled up. Loading techniques that can achieve this, and that are BAT, are:</p> <ul style="list-style-type: none"> <li>• height adjustable fill pipes</li> <li>• height adjustable fill tubes, and</li> <li>• height adjustable cascade tubes.</li> </ul> <p>These techniques are BAT, except when loading/unloading non drift sensitive products, for which the free fall height is not that critical.</p>	<p><b>Not Applicable</b></p>	
<p><b>5.4.2 Considerations on transfer techniques</b></p>		
<p><b>BAT 87.</b> For applying a grab, BAT is to follow the decision diagram as shown in Section 4.4.3.2 and to leave the grab in the hopper for a sufficient time after the material discharge.</p>	<p><b>Not Applicable</b></p>	
<p><b>BAT 88.</b> BAT for new grabs, is to apply grabs with the following properties (see Section 4.4.5.1):</p> <ul style="list-style-type: none"> <li>• geometric shape and optimal load capacity</li> <li>• the grab volume is always higher than the volume that is given by the grab curve</li> <li>• the surface is smooth to avoid material adhering, and</li> <li>• a good closure capacity during permanent operation.</li> </ul>	<p><b>Not Applicable</b></p>	
<p><b>BAT 89.</b> For all types of substances, BAT is to design conveyor to conveyor transfer chutes in such a way that spillage is reduced to a minimum. A modelling process is available to generate detail designs for new and existing transfer points. For more details see Section 4.4.5.5.</p>	<p><b>Not Applicable</b></p>	

<p><b>BAT 90.</b> For non or very slightly drift sensitive products (S5) and moderately drift sensitive, wettable products (S4), BAT is to apply an open belt conveyor and additionally, depending on the local circumstances, one or a proper combination of the following techniques:</p> <ul style="list-style-type: none"> <li>• lateral wind protection, see Section 4.4.6.1</li> <li>• spraying water and jet spraying at the transfer points, see Sections 4.4.6.8 and 4.4.6.9, and/or</li> <li>• belt cleaning, see Section 4.4.6.10.</li> </ul>	<b>Not Applicable</b>	
<p><b>BAT 91.</b> For highly drift sensitive products (S1 and S2) and moderately drift sensitive, not wettable products (S3) BAT for new situations, is to: apply closed conveyors, or types where the belt itself or a second belt locks the material (see Section 4.4.5.2), such as:</p> <ul style="list-style-type: none"> <li>• pneumatic conveyors</li> <li>• trough chain conveyors</li> <li>• screw conveyors</li> <li>• tube belt conveyor</li> <li>• loop belt conveyor</li> <li>• double belt conveyor</li> </ul> <p>or to apply enclosed conveyor belts without support pulleys (see Section 4.4.5.3), such as:</p> <ul style="list-style-type: none"> <li>• aerobelt conveyor</li> <li>• low friction conveyor</li> <li>• conveyor with diabolos.</li> </ul> <p>The type of conveyor depends on the substance to be transported and on the location and has to be decided on a case-by-case basis.</p>	<b>Not Applicable</b>	
<p><b>BAT 92.</b> For existing conventional conveyors, transporting highly drift sensitive products (S1 and S2) and moderately drift sensitive, not wettable products (S3), BAT is to apply housing; see Section 4.4.6.2. When applying an extraction system, BAT is to filter the outgoing air stream; see Section 4.4.6.4.</p>	<b>Not Applicable</b>	
<p><b>BAT 93.</b></p>	<b>Not Applicable</b>	

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To reduce energy consumption for conveyor belts (see Section 4.4.5.2), BAT is to apply:

- a good conveyor design, including idlers and idler spacing
- an accurate installation tolerance, and
- a belt with low rolling resistance.

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# ***Appendix No. 2***

## ***Applicable BAT Conclusions***

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<b>Conclusions on BAT</b>			
<b><u>Reference Document on Best Available Techniques for</u></b>			
<b><u>Energy Efficiency - February 2009</u></b>			
<b><u>BAT Reference No.</u></b>	<b><u>BAT Statement</u></b>	<b><u>Applicable</u></b>	<b><u>Proposal</u></b>
4.2.1	<b>BAT is to implement and adhere to an energy efficiency management system (ENEMS)</b>	Yes	<p>As energy is principally used to operate the, ventilation, feeding and water supply there are over riding issues with regard to animal welfare when it comes to energy efficiency. As a significant amount of energy is used in ventilation and climate control within the house, external climatic factors will have a significant effect on the energy usage on-site.</p> <p>However it should be noted that a number of specific issues have been addressed in the construction of these new houses so as to ensure the highest levels of energy efficiency.</p> <p>A system will be established to review annual energy usage and review results.</p>
4.2.2.2	<b>BAT is to identify the aspects of an installation that influence energy efficiency by carrying out an audit. It is important that an audit is coherent with a systems approach.</b>	Yes	<p>Energy Audit to be completed within 12 months of the date of grant of the licence/commencement of activities.</p> <p>Energy Audit to address any additional BAT recommendations that may be deemed appropriate.</p>
4.2.3	<b>BAT is to optimise energy efficiency when planning a new installation, unit or system or a significant upgrade by considering all of the following:</b>	Yes	<p><b><u>Existing/Proposed</u></b></p> <p>Houses to be constructed with high insulation standards.</p>

	<p>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.</p> <p>b. the development and/or selection of energy efficient technologies</p> <p>c. additional data collection may need to be carried out as part of the design project or separately to supplement existing data or fill gaps in knowledge</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>		<p>It should be noted that a number of specific issues have been addressed in the construction of these new houses so as to ensure the highest levels of energy efficiency. These are identified in Section 5.2.4 on page 2.</p>
<p>4.2.8</p>	<p><b>BAT is to carry out maintenance at installations to optimise energy efficiency ....</b></p>	<p>Yes</p>	<p><b>Existing</b> Although the houses will be newly constructed a maintenance programme will be carried out on site to ensure that all systems are running efficiently.</p>
<p>4.3.10</p>	<p><b>BAT is to optimise artificial lighting systems by using the techniques such as those in Table 4.9 according to applicability</b></p>	<p>Yes</p>	<p><b>Existing</b>  As per 4.2.3 above.</p>
	<p><b><u>Remaining BAT recommendations.</u></b></p> <p><b><u>Including but not limited to 4.3.1 – 4.3.4 inclusive, 4.3.7 and 4.3.8.</u></b></p>	<p>No.</p>	<p>Remaining recommendations are not deemed applicable to the existing/proposed development, and/or are more appropriately covered by sector specific BAT recommendations.</p> <p>It must also be born in mind that sector specific BAT recommendations on energy efficiency are already contained within</p> <p><b><u>Integrated Pollution Prevention and Control (IPPC) Reference Document on Best Available Techniques for Intensive Rearing of Poultry and Pigs July 2003</u></b></p>

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## ***Appendix No. 3***

### ***Slurry Production.***

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## Manure Storage and Production

Name Doon Farm Enterprises Ltd

Address Doon, Araglin,  
Kilworth,  
Co Cork.

### 1. PIG STOCK NUMBERS

**TYPE OF UNIT**

INTEGRATED	SOWS	500	
BREEDING	SOWS	0	
FINISHING	PIG PLACES	0	
WATER:MEAL RATIO FINISHERS		2	

### 3. MANURE STORAGE REQUIREMENTS

WATER:MEAL RATIO		TYPE OF UNIT		STORAGE
		INTEG.	FINISH.	
2	1	0.312	0.024	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>M<sup>3</sup></span> <span style="border: 1px solid black; padding: 2px 10px;">11803.5</span> </div>
2.5	1	0.355	0.031	
3	1	0.398	0.039	
3.5	1	0.441	0.046	
4	1	0.483	0.053	
<b>TOTAL</b>				

### 2. NUTRIENT OUTPUT

Annual Slurry Production \*\*\*500 sows @0.355/wk 8112 m3

**Appendix No. 4**  
**Slurry Storage Capacity.**

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Building	Tank length	Tank Width	Tank Area	Tank Depth	Capacity	Effective Capacity (m <sup>3</sup> )
	m	m	m <sup>2</sup>	m	m <sup>3</sup>	with 200 mm freeboard
Fattening House 1	52.6	12.2	641.7	2.8	1809.7	1681.3
Weaner House 2	38.0	7.5	285.0	2.1	598.5	541.5
Dry sow & Farrowing 3	42.3	13.2	558.4	1.9	1060.9	949.2
Dry sow & Farrowing 6	12.3	40.0	492.0	1.9	934.8	836.4
House 15	10.2	3.3	33.7	2.8	94.2	87.5
First Stage 4A	3.5	9.2	32.2	0.6	19.3	12.9
Channel B	67.3	13.3	895.1	1.3	1163.6	984.6
Second Stage Weaner 5	13.3	5.5	73.2	1.3	95.1	80.5
First Stage Weaner 6	36.4	6.7	243.9	1.3	317.0	268.3
Channel C	36.4	1.5	54.6	1.3	71.0	60.1
First Stage Weaner 7	15.6	8.5	132.6	0.6	79.6	53.0
Second Stage Weaner 8	54.5	9.2	501.4	0.9	451.3	351.0
Channel G	49.2	1.5	73.8	1.3	95.9	81.2
Fattening House 9	47.5	8.4	399.0	1.5	598.5	518.7
Channel D	47.5	1.5	71.3	1.5	106.9	92.6
Fattening House 10	59.3	6.3	373.6	1.3	485.7	410.9
Channel E	59.3	1.5	89.0	1.3	115.6	97.8
Fattening House 11	59.3	8.1	480.3	1.3	624.4	528.4
Channel F	59.3	2.6	154.2	1.3	200.4	169.6
Fattening House 12	59.3	5.4	320.2	1.3	416.3	352.2
Fattening House 13	58.0	10.4	603.2	1.3	784.2	663.5
Channel H	58.0	2.6	150.8	1.3	196.0	165.9
Fattening House 14	58.0	10.4	603.2	1.3	784.2	663.5
Outloading Area 17			125.0			
Office 15			20.7			
Boilerhouse 16			5.3			
Loose Dry Sow 1S	30.5	34.0	1037.0	1.5	1555.5	1348.1
Loose Dry Sow 1SA	12.0	19.6	234.8	1.5	352.3	305.3
Loose Dry Sow 3S	11.3	34.0	384.2	1.5	576.3	499.5
<b>Total</b>					<b>13587.1</b>	<b>11803.5</b>



## ***Appendix No. 5***

### ***Fertiliser Plan***

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**2018 Estimated Customer Fertiliser Plan For Pig Farm Use only. Distribution of this report to any person/body strictly prohibited.**

**THIS IS NOT A RECORD 3 / SLURRY REGISTER**

Farm	Doon Farm Enterprises	Herd No	Dept. Of Ag	Total N	Total P	Area	NPH	Storage (weeks)	Est.Max allocation 2018
1	Donal Hannon	W1710038	2017	2286	331	26.28	87.0	22	350
2	Charlie Ryan	V2270101	2017	12267	1787	124.85	98.3	22	1553
3	Anne O'Connell	V2250224	2017	7308	1026	76.15	96.0	22	980
4	Pat Heaphy	V227033X	2017	3366	484	44.03	76.4	22	349
5	C Ahearne	W1760400	2017	623	84	20.64	30.2	22	316
6	P Walsh	W1710917	2017	3746	537	28.36	132.1	22	256
7	Jackie Hyland	V228120X	2017	6864	999	82.72	83.0	22	919
8	Michael Hyland	D3630839	2017	0	0	39	0.0	22	683
9	Bridie Martin	V2270047	2017	3536	499	86.67	40.8	22	1253
10	D Walsh	W1710917	2017	9354	1397	68.54	136.5	22	547
11	Pat Geoghegan	W1710674	2017	7848	420	20.14	389.7	22	-146
12	D Mahony	D3630839	2017	2213	468	31.52	70.2	22	305
13	Mary Brackett	W1690193	2017	5086	738	44.22	115.0	22	579
14	P Griffen	V2281189	2017	989	144	19.75	50.1	22	270
15	M Browne	W1800495	2017	6304	931	45.3	139.2	22	333
16	Michael Higgins	W1670087	2017	5614	802	54.8	102.4	22	878
									<b>9424 m3</b>

## ***Appendix No. 6***

### ***Up-Dated Site Plan (map not to scale)***

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SITE NOTICE also positioned at the entrance gate 300m away

SITE AREA 1.903HA

Well Location at the entrance gate 300m away Grid 589058, 521629

**LEGEND**

Direction of Roofwater Flows

Rain Water

Inspection Point

Downpipe

Slurry/Water Diversion Chamber

Direction of Effluent Flows

Open Areas Trafficked by Stock on Solid Floors (not Slatted)

Mechanical Vents

Manure Suction Point

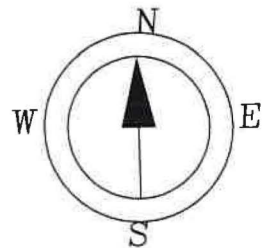
Sluice

Structures for Retention

Structures for Approved by Planning Authority

Buildings Currently with Planning Permission or exempt from Planning Permission

Spot Level 93.94



The Site Boundary indicated in Red is a Notional Boundary to comply with the requirements of the Planning Regulations

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**NRGE**

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Email NRGE@iol.ie

Client: Doon Farm Enterprises Ltd  
Doon,  
Araglin

Title: Site Plan

Date: July 16

Scale: 1:1000(A4)  
1:500(A2)

Drawing No: 001

Drawn By:

# **Appendix No. 7**

## **Baseline Reports**

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**BASELINE SCREENING REPORT**

in respect of

**AN APPLICATION FOR A LICENCE  
ON AN EXISTING PIG FARM**

located at

**Doon, Araglin, Kilworth, Co Cork.**

Prepared on behalf of the Applicant

**Mr Charlie Ryan of Doon Farm Enterprises Ltd.**

by

**CLW Environmental Planners Ltd.**  
The Mews,  
23 Farnham Street,  
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**25<sup>th</sup> January 2018**

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## BASELINE REPORT

Completed in accordance with

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

**-APPLICATION FOR A LICENCE REVIEW -**

### 1.0 INTRODUCTION

**The Purpose of this Report is to complete a baseline report in respect of the existing pig farm site at Doon, Araglin, Kilworth, Co Cork (Licence Number P1024-02). This report will be provided in support of an application for a licence to be submitted to the E.P.A.**

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

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

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

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

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

### **1.1 STAGES IN PRODUCING A BASELINE REPORT**

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

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

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

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

**Stage 8:** to determine the content of the report.

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

### 2.1 Stage One

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

and

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

The existing development is the breeding and rearing of pigs to weaner and market weight in a fully integrated pig. Pigs are to be bred and reared on this integrated pig farm until fit for sale at c. 110kgs. The production process involves the use provision of animal feed and water to the animals and the production of pigs and organic fertiliser.

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

#### ➤ **Use of Hazardous Substances**

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

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

#### ➤ **Production of Hazardous Substances**

No Hazardous substances are produced on the farm.

#### ➤ **Release of Hazardous Substances**

No Hazardous substances are released from the farm.



## 2.2 Stage Two

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

and

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

### Section 4.2 of Guidance:

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

### ➤ Hazardous Substances Identified in Stage 1

1. FLUORESCENT TUBES  
(containing mercury EC No. 231-106-7 as per Article 3 of Regulation (EC) No 1272/2008)
2. Vircon S Disinfectant  
(containing Sulfamidic Acid EC No. 226-218-8 as per Article 3 of Regulation (EC) No 1272/2008)
3. DIESEL (Or other petroleum products)  
(EC No. 302-695-9 as per Article 3 of Regulation (EC) No 1272/2008).

## 2.3 Stage Three



- Activity** - For each relevant hazardous substance brought forward from Stage 2, identify the actual possibility for soil or groundwater contamination at the site of the installation, including the probability of releases and their consequences, and taking particular account of:
- the quantities of each hazardous substance or groups of similar hazardous substances concerned;
  - how and where hazardous substances are stored, used and to be transported around the installation;
  - where they pose a risk to be released;
  - In case of existing installations also the measures that have been adopted to ensure that it is impossible in practice that contamination of soil or groundwater takes place.

**and**

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

### **1. FLUORESCENT TUBES**

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

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

**Decision - Exclude from further consideration**

### **2. Vircon S Disinfectant**

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

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

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

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

**Decision - Exclude from further consideration**

### **3. DIESEL**

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

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

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

**Decision - Exclude from further consideration**

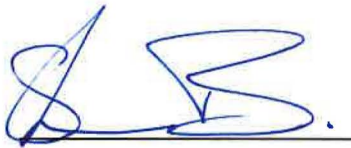
### 3.0 CONCLUSIONS

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

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

and

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



Shane Brady  
BAgrSc  
CLW Environmental Planners

25<sup>th</sup> January 2018.

Date

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