

# MacLean Eggs Limited

## Hutton Hall Barns Free Range Layer Unit

## Substantial Operator-Initiated Layer Unit

### PPC/A/1159728/VN03

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## 1 NON-TECHNICAL SUMMARY OF DETERMINATION

**PPC requires that where the draft determination of an application or a substantial variation is to be subject to public consultation (this is usually referred to as PPD or IED consultation) the decision document will contain a non-technical summary of the determination. There is no need to have a non-technical summary if the application is not subject to PPD.**

**Will the draft determination be subject to public consultation? Yes**

This application to vary permit PPC/A/1159728 is to enable MacLean Eggs Limited to expand their current egg production operations at Hutton Hall Barns, near Berwick-Upon-Tweed in Northumberland. The site currently consists of 4 poultry sheds housing a total 128,000 places for free range laying hens. The site is located at Ordnance Survey grid reference NT 8892 5380.

The permit was issued on 2/8/2018 for 96,000 places for poultry, without specifying the type of bird being housed. VN01 was issued on 14/2/2020 adding a further 32,000 places taking the total bird numbers housed to 128,000. VN02 was issued on 17/12/2020 which was administrative to add soil and groundwater monitoring and update reporting requirements. This third variation to the permit is to increase bird places to 192,000 in an additional two sheds with associated infrastructure such as underground wastewater tanks and swales. It will also specify the bird type to be housed as Free Range Layers.

Like the existing housing units, the new sheds are designed to minimise ammonia emissions. They are insulated to retain heat, concrete floored with a damp proof membrane and with walls and roofs insulated to reduce the risk of condensation. The housing system is categorised “aviary” comprising perches and woodchip litter foraging areas (BAT Conclusion 31b4) with popholes at the base of the sheds that are opened for specific periods of time allowing the birds to range within a given fenced area. Temperature and humidity are monitored continuously and adjusted to achieve optimal conditions for flock welfare and to maintain low moisture content in the litter. Litter will be monitored continuously to ensure that it is ‘friable and loose’. Lighting shall be powered by solar PV panels at the new sheds (as currently at Shed 4).

Ventilation is by means of roof-mounted fans and multiple passive inlets on the roofs and through the popholes. Maximum and minimum temperatures and relative humidity in the units are monitored and recorded daily with adjustments made as necessary to ensure that birds are in the optimum environment for their age and weight. Nipple drinkers are used to reduce wastage of water and to maintain dry litter. Water consumption is monitored and recorded daily. Outdoor concrete scratch areas are the length and width of the shed, teram lining is under the rubble which is under the concrete floor. Nest boxes are provided along the length of the shed for birds to lay their eggs. Eggs are collected from the nest boxes by an egg conveyor belt that runs the length of the shed to an egg packing area located at one end of the buildings.

Birds are introduced into the sheds as point-of-lay pullets at around 16-17 weeks old and stay on site until they are approximately 76 weeks old. Manure is not stored in the sheds; the manure belts are emptied twice a week directly into lorries or farm trailers, covered and removed from the site where it is utilised by other farmers as a fertiliser for agricultural benefit.

At the end of each cycle, the housing units will be de-stocked of birds and all soiled litter removed manually into covered trailers and taken off site. The buildings are then washed, sterilised and recommissioned ready for the next flock. The washwater is collected in a sealed below ground tank prior to being spread on the land. No food mixing occurs on site. The premixed feed is adjusted throughout the cycle to provide optimal nutrient uptake to minimise loss *via* manure.

Collectively, these measures are intended to reduce the production and release of ammonia, odours and dust from the sheds, to prevent liquid washings escaping to the environment, and to manage the waste produced on-site. All aspects of building design and operation will be supported by management systems that aim to minimise the impact of the Permitted activities on emissions to air, water and land.

The application submitted complies with both PPC requirements and the Standard Farming Installation Rules, for example: the adoption of BAT (Best Available Techniques (commonly known as BAT) Reference Document (abbreviated to BRef) for Intensive Livestock Installations) in building design and construction; and the introduction of procedures and systems for the control of odour and noise as required by the legislation. Please see Section 5 of this Decision Document for more information on BAT at this site.

The applicant has confirmed that the Sustainable Drainage System to treat surface and yard runoff *via* new sediment traps at Hutton Hall Fourth Unit will adhere to the guidelines the CREW Rural SuDS Guide, considered BAT for IA permitted installations. Final design of these SuDS demonstrating adherence has not been submitted but permit conditions requiring demonstration of BAT prior to installation of SuDS and that the applicant shall not operate the Fourth Unit until they are installed have been inserted into this variation.

A Baseline Report has been submitted with consideration of the proposed new ranging areas and sheds and has been assessed as satisfactory to meet PPC Schedule 7 Part 1 Regulation 2(4).

Under the Habitats Regulations (Conservation (Natural Habitats, &c.) Regulations 1994) and the Nature Conservation (Scotland) Act 2004 there are duties placed on SEPA for the protection of designated sites. With it is SEPA's procedure to undertake the Simple Calculation of Ammonia Limits (or SCAIL calculation) to calculate the impact of ammonia emissions for the site on SNH Designations. Hutton Hall Barns Farm is within 10km of 10 designated sites (please see Section 4.5 of this Main Decision Document). The tool provides an estimate of the amount of nitrogen deposited, in form of NH<sub>3</sub>, on a habitat from the farm. The Simple Calculation of Atmospheric Impact Limits (SCAIL screening tool) was undertaken by SEPA and showed that no exceedances of the Critical Loads/Levels of Ammonia, Acid and Nitrogen capacities of the sites would be made because of the proposed Permit for Hutton Hall Barns Farm.

Determination was therefore to issue the variation to Permit PPC/A/1159728 based on the application submitted.

### **Glossary of terms**

PPC	Pollution Prevention and Control (Scotland) Regulations 2012
BAT	Best Available Techniques
CO	Coordinating Officer
IA	Intensive Agriculture
ELV	Emission Limit Value
SCAIL	Simple Calculation of Atmospheric Impact Limits
BRef	Best Available Techniques Reference Document for the Intensive Rearing of Poultry or Pigs (2017)
NatureScot	(Scotland's nature conservation agency formerly known as SNH or Scottish Natural Heritage)

SSSI	Site of Special Scientific Interest
SAC	Special Area of Conservation
SPA	Special Protected Area
EAL	Environmental Assessment Level
PPD	Public Participation Directive
PM <sub>10</sub>	Concentration of particles that are less than or equal to 10 µm in diameter
PEPFAA Code	Prevention of Environmental Pollution from Agricultural Activity
APHA	Animal and Plant Health Agency
DAA	Directly Associated Activity
GBR 18	General Binding Rule 18 of the Water Environment (Controlled Activities) (Scotland) Regulations 2011
IED	Industrial Emissions Directive
SuDS	Sustainable Drainage System
CREW Rural SuDS Guide	CREW Rural Suds Design and Build Guide' means the Duffy, A. Moir, S. Berwick, N. Shabashow, J. D'Arcy, B. Wade R. (2016). Rural Sustainable Drainage Systems: A Practical Design and Build Guide for Scotland's Farmers and Landowners, CRW2015/2.2, available online at <a href="http://www.crew.ac.uk/publications">www.crew.ac.uk/publications</a>

## 2 EXTERNAL CONSULTATION AND SEPA'S RESPONSE

### *Is Public Consultation Required - Yes*

<b>Advertisements Check:</b>	<b>Date</b>	<b>Compliance with advertising requirements</b>
Border Telegraph	04/08/2021	Yes
Edinburgh Gazette	06/08/2021	Yes

**No. of responses received:** None

### *Is PPC Statutory Consultation Required –*

**Food Standards Agency:** No response received.

**Health Board:** No response received.

**Local Auth:** No response received.

**Scottish Government: 26/08/2021** Senior Agricultural Officer at the SGRPID requests further information regarding roaming areas in order to undertake a full assessment of nitrogen deposition within the NVZ.

<b>01/09/2021</b> Applicant provides information regarding the roaming areas. CO forwards to SGRPID and the Senior Agricultural Officer confirms that NVZ thresholds shall be adhered to based on this information. No further action required.	
<b>Health and Safety Executive:</b> No response received.	
<b>Scottish Natural Heritage (PPC Regs consultation):</b> No response received.	
Discretionary Consultation – N/A	
Enhanced SEPA public consultation – N/A	
'Off-site' Consultation – N/A	
Transboundary Consultation – N/A	
Public Participation Consultation -	
<p><b>STATEMENT ON THE PUBLIC PARTICIPATION PROCESS</b>  The Pollution Prevention and Control (Public Participation) (Scotland) Regulations 2005 requires that SEPA's draft determination of this application be placed on SEPA's website and public register and be subject to 28 days' public consultation. The dates between which this consultation took place, the number of representations received and SEPA's response to these are outlined below.</p>	
<b>Date SEPA notified applicant of draft determination</b>	12/11/2021
<b>Date draft determination placed on SEPA's Website</b>	12/11/2021
<b>Details of any other 'appropriate means' used to advertise the draft.</b>	N/A
<b>Date public consultation on draft permit opened</b>	12/11/2021
<b>Date public consultation on draft permit consultation closed</b>	TBC
<b>Number of representations received to the consultation</b>	TBC
<b>Date final determination placed on the SEPA's Website</b>	TBC

<b>3 ADMINISTRATIVE DETERMINATIONS</b>
<b>Determination of the Schedule 1 activity</b>
No change.
<b>Determination of the stationary technical unit to be permitted:</b>
As detailed in the application and supporting documentation.
<b>Determination of directly associated activities:</b>
As detailed in the application and supporting documentation.

**Determination of 'site boundary'**

As detailed in the application and supporting documentation.

**4 INTRODUCTION AND BACKGROUND****4.1 Historical Background to the activity and variation**

For more than 30 years the land at Hutton Hall Barns was cropped for arable farming prior to the installation of the laying hen housing. This application is to add two further sheds to the current 4 sheds built nearly every year from 2016. Each shall have the capacity to hold 32,000 birds bringing the total places to 192,000. As such the operator has made this application to SEPA to substantially vary PPC permit PPC/A/1159728. This is the third variation to the permit after the addition of Shed 4 (increasing by 32,000 places for birds taking the then-total of places to 128,000) and the 2020 mandatory permit review variation following the publication of the BAT Reference Document (BRef) for the Intensive Rearing of Poultry or Pigs.

MacLean Eggs Limited is a company producing eggs in a free-range layer aviary housing system. This application is to increase the number of laying hens for egg production at the Hutton Hall Barns Farm, located to the northeast of Jedburgh in the Berwickshire Borders.

This application by MacLean Eggs Limited is to expand an operation for the Activity described in Schedule 1 Section 6.9 Part A paragraph (a) of the Pollution Prevention and Control (Scotland) Regulations 2012, covering the rearing of poultry. The application for the permit was determined after the publication of the BRef and the BAT conclusions published in February 2017, the applicant was therefore required to demonstrate that the new sheds are designed having regard to the following principles outlined in the BRef as Best Available Technique:

- reducing the ammonia-emitting surface;
- removing the manure frequently to an external stores (e.g. with belt removal systems);
- quickly drying the manure;
- using surfaces which are smooth and easy to clean;
- lowering the indoor temperature and ventilation as much as animal welfare and/or production allow.

All proposals for new housing demonstrate how the chosen design addresses the above principles.

**4.2 Description of activity**

Rearing poultry intensively in an installation with more than 40,000 places is described in Part A of Section 6.9 (a) of Schedule 1 of the Regulations. MacLean Eggs Limited proposes to have 192,000 places over six sheds. Other Directly Associated Activities include:

- Feed storage;
- Fuel storage;
- Water storage;
- Chemical storage;
- Manure handling;
- Dirty water storage;
- Storage of fallen stock for disposal;
- Management of lightly contaminated surface water.
- Ancillary power generation by diesel generators

#### 4.3 Guidance/directions issued to SEPA by the Scottish Ministers under Reg.60 or 61.

None.

#### 4.4 Identification of important and sensitive receptors

Hutton Hall Barns Poultry Unit is within 10km of 10 Scottish Natural Heritage designated sites (please see Sections 5.2 and 6 of this Main Decision Document). Livestock such as poultry emit ammonia (which contains the nutrient nitrogen) into the atmosphere, which may impact on certain species of flora and fauna. During the pre-application stage the consultant submitted the initial Simple Calculation of Atmospheric Impact Limits (SCAIL) for agriculture for assessment. This screening used an outdated emission factor and the CO required clarification of this and the sensitivity of the designated sites as some critical load lower thresholds were showing breaches.

Corrected screening by the SEPA Terrestrial Ecology Specialist found that these potential exceedances were anomalous and in actuality the SCAIL showed that no sites would be impacted by the introduction of this farm.

SITE NAME	NATIONAL GRID REFERENCE
Whiteadder Water SSSI	NT891546
River Tweed SSSI	NT892546
River Tweed SAC	NT892546
Foulden Burn SSSI	NT919548
Tweed Catchment Rivers - England: Lower Tweed and Whiteadder SSSI	NT910495
Tweed Estuary SAC	NT972518
Burnmouth Coast SSSI	NT970583
Berwickshire and North Northumberland Coast SAC	NT970585
Berwickshire Coast (Intertidal) SSSI	NT970585
Northumberland Shore SSSI	NT981568

The entirety of Scotland is a Drinking Water Protection Area but groundwater will not be unduly impacted by the installation as BAT in the form of management, housing and surface water treatment ensures that direct emissions should be prevented.

There were no human health sensitive receptors identified within 250 metres as part of the required screening of PM<sub>10</sub> emissions from this site. The site is in a rural area with some outspread residences, the nearest being approximately 350 metres from any shed.

## 5 KEY ENVIRONMENTAL ISSUES

### 5.1 Summary of significant environmental impacts

SEPA have identified several environmental impacts (not necessarily significant) as follows:

<b>Emissions to Air</b>	Ammonia, dust (PM <sub>10</sub> ) and odour
<b>Emissions to Land</b>	Waste, faecal material and nutrient inputs to land
<b>Emissions to Water</b>	Surface water discharge to surface water and indirect to groundwater
<b>Other Emissions</b>	Noise
<b>Associated risks</b>	Fuel and chemical storage

SEPA aims to control these through the conditions contained in the permit and by the requirement on the operator to comply with BAT as indicated in the SFIR and the 2017 BAT Conclusions.

There were no human health sensitive receptors identified within 250 metres as part of the required screening of PM<sub>10</sub> emissions from this site.

## 5.2 Implications of the Variation on - Point Sources to Air

SEPA has identified that the major environmental impacts from the farm will be dust and ammonia.

### Ammonia

Ammonia can be carried on the air and deposited in lochs and ponds causing eutrophication. It is assessed that the main point source of ammonia at Hutton Hall Barns Poultry Unit will be the housing and ventilation which conform to the BAT Conclusion 31 (Technique b4) in the BRef BAT Conclusions published on 21 February 2017.

To assess the potential impact of ammonia from Intensive Agricultural Installations the applicant is required to supply calculations to indicate the amount of ammonia released from the chicken unit. Using the SEPA-approved figure for Layers (ammonia produced by an average sized bird) calculations indicate that the ammonia released from the installation at Hutton Hall Barns Free Range Layer Unit would be on average 20,736 kg/yr (based on a population of 192,000 birds).

Under the Habitats Regulations (Conservation (Natural Habitats, &c.) Regulations 1994) and the Nature Conservation (Scotland) Act 2004 there are duties placed on SEPA for the protection of designated sites. There are 10 Designated Sites under the above legislation within 10km of the Permitted site (threshold dictated by SEPA Nature Conservation Procedure NCP-P-01). During the pre-application stage the consultant submitted the initial Simple Calculation of Atmospheric Impact Limits (SCAIL) for agriculture for assessment. This screening used an outdated emission factor and the CO required clarification of this and the sensitivity of the designated sites as some critical load lower thresholds were showing breaches.

Corrected screening by the SEPA Terrestrial Ecology Specialist found that these potential exceedances were anomalous and in actuality the SCAIL showed that no sites would be impacted by the introduction of layers in two further sheds at Hutton Hall Barns.

### Dust (PM<sub>10</sub>)

PM<sub>10</sub> dust particles (particulate matter 10 micrometres or less in diameter) are subject to statutory air quality standards. These standards have been specified to reduce health effects and environmental risks to an acceptable level. Air quality limit values and averaging periods are set out in the Air Quality Standards (Scotland) Regulations 2010. In addition to the air quality standards, Scotland has air quality objectives which are set out in the Air Quality (Scotland) Regulations 2000 (as amended).

Where sensitive receptors are located within 250m of a poultry unit, SEPA requests that the Applicant screens the emission of particulate matter to establish whether the emission will cause any air quality standards to be breached. There are no sensitive receptors within 250m of Hutton Hall Barns Free Range Layer Unit.

Ammonia and dust will be minimised by carefully managing air exchange to control humidity levels within the sheds and maintaining the dry matter content of the litter at an optimal value of between 60-65%.



### BAT for Housing

To quantify the amount of ammonia which will be emitted, SEPA use DEFRA-approved emission factors (free range layers attract an emission factor of 0.108kg/per bird/yr). The emission factors are specific to each proposed housing system. The SCAL Agriculture screening tool uses these emission factors in combination with the specific details of the proposed housing (e.g. ventilation fan speed, roof height, etc.) to determine what volume of nitrogen, acid and ammonia will be deposited on adjacent land. Some housing systems are more efficient than others and will result in a lower emission factor. The new housing shall meet the infrastructure required for BAT Conclusion 31 (b4) "manure belts (in case of aviary)". There is no on-site manure storage to be included within the Permit.

### Diesel Generators

It is a requirement of the animal welfare regulations that the birds have adequate heating and ventilation at all times. The site shall be powered primarily from the mains grid but there are diesel generators used as a back-up power units at Hutton Hall Barns in the event of a mains outage. SEPA are aware that diesel generators can give rise to dense fume especially at start up or if the generator is poorly maintained and would expect the operator to use BAT particularly with regard to servicing and maintenance to minimise visible emissions and particulates from the exhaust.

### Bioaerosols

SEPA does not have any specific policies in relation to bioaerosols from IA processes, there are currently no health criteria values available for interpreting the results of bioaerosol monitoring. Routine monitoring would be required at receptors within 250m should appropriate criteria for assessment be identified.

## **5.3 Implications of the Variation on - Point Source Emissions to Surface Water and Sewer**

There are no public sewers within the vicinity of Hutton Hall Barns and therefore there will be no discharges to the sewer.

Two septic tanks have been installed to collect all domestic wastewater from the welfare amenities and discharge to full soakaways. These are authorised under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR/R/SEPA2021-405 and CAR/R/SEPA2021-406). The foul effluent systems are not considered part of the Permitted Installation and will be a very small discharges from the amenity areas.

Surface water run-off from each poultry shed, scratch areas and low-contamination areas are directed to a series of sediment traps, one system serving each new shed. The application indicates that lightly contaminated run off will be piped to sediment traps but it doesn't confirm the design criteria or dimensions of the feature. SEPA have therefore included upgrade conditions to prevent operation of the fourth unit until the applicant confirms that the Sustainable Drainage System at Hutton Hall Barns Fourth Unit will adhere to the guidelines the CREW Rural SuDS Guide, considered BAT prior to installation and that it will be installed before the unit operates.

## **5.4 Implications of the Variation on - Point Source Emissions to Groundwater**

There shall be no direct point source emissions to groundwater as a consequence of this proposed variation to the permit. As *per* non-standard Condition 3.3.6 and Section 5.3 above the Operator will demonstrate that the sediment traps are sufficiently sized and will provide sufficient treatment of all lightly contaminated run off so that these are not considered to be point source discharges to groundwater.

SEPA has assessed as satisfactory and comprehensive, the Baseline Report submitted with the application. This report evaluates past potential contamination and future pollution risks to both soil and groundwater (please see Section 5.19 of this Decision Document).

### **5.5 Implications of the Variation on - Fugitive Emissions to Air**

There are a number of potential fugitive emissions to air. These include the release of ammonia during cleaning or opening of the poultry sheds for fallen stock removal and also from the birds themselves. Whilst SEPA accepts that some fugitive releases are unavoidable e.g. odour from unplanned releases due to an unforeseen incident; others such as poor cleaning out practices can be controlled through the relevant management techniques. SEPA views fugitive releases to air from these activities as an indication of process or maintenance issues and would require any defects to be reported and rectified as soon as possible.

Although not specifically covered by conditions within the permit, maintenance issues are covered by the PPC Regulations under Regulation 22 which requires the use of "Best Available Techniques" (see definition of "techniques" within the explanatory notes attached to the permit issued in 2019). SEPA seeks to reduce these occurrences by requiring operators to record maintenance issues and demonstrate a high degree of environmental management over the activities they undertake. SEPA for its part has a number of regulatory instruments it can use to gain compliance should the operator fail to comply.

### **5.6 Implications of the Variation on - Fugitive Emissions to Water**

There are several potential sources which could lead to fugitive emissions to water, these include: poorly maintained drainage systems, bird delivery and collection contaminating surface waters, lack of care during cleaning of the chicken sheds and diesel tank filling and associated bund emptying.

SEPA views fugitive releases as avoidable and can usually link these incidents to either operational error or negligence. SEPA seeks to reduce these occurrences in the permit by requiring the company to provide training to relevant staff in environmental issues and exercising a high degree of environmental management over the activities they undertake.

The applicant has confirmed that the Sustainable Drainage System to treat surface and yard runoff *via* new sediment traps at Hutton Hall Fourth Unit will adhere to the guidelines the CREW Rural SuDS Guide, considered BAT for IA permitted installations. Final design of these SuDS demonstrating adherence has not been submitted but permit conditions requiring demonstration of BAT prior to installation of SuDS and that the applicant shall not operate the Fourth Unit until they are installed have been inserted into this variation.

Ditches within the site boundary shall be (or already are) fenced to prevent ingress from the roaming layers.

### **5.7 Implications of the Variation on – Odour**

SEPA acknowledges that Odour from intensive agriculture installations can give rise to complaints and to this end requires operators to undertake odour assessments and to formulate and implement Odour Management Plans to reduce the impact on the local environment.

SEPA has identified that the potential odour issues from this intensive poultry farm are ammonia and general poultry smells, with secondary odours from the use of any chlorinated cleaning materials or disinfectants to clean the sheds. Conditions within the permit will require the company to produce an Odour Management Plan detailing how odour issues will be resolved and the company is advised by SEPA to have regard to the BAT contained within Section 2.8 of SEPA's Standard Farming Installation Rules and the BAT Conclusions which deal with odour management.

With BAT and the required EMS in place there are no expected implications of this variation to permit PPC/A/1159728 on odour from the process.

There has been no excessive odour outwith the site boundary recorded by SEPA.

#### **5.8 Implications of the Variation on – Management**

Other than the 50% increase in birds on site and the associated processes (manure produced, emissions, *etc.*) the operational procedures are unaffected. A such, this application to vary permit PPC/A/1159728 shall not have any implications on the management of the site.

#### **5.9 Implications of the Variation on - Raw Materials**

*Chemicals:* Chemicals used in egg production include cleaning and disinfection chemicals, pesticides, rodenticides, herbicides, insecticides and fungicides. All of these chemicals are required to be DEFRA-approved. Cleaning chemicals are either brought on site for cleaning or kept within a secure container in the existing Chemical Store and used by trained staff.

*Diesel:* No change in management or handling but proportionate increase in diesel used on site in the two new back-up generators.

*Water:* Water is sourced from the mains and use is discussed below in 5.12.

*Feed:* No change in management, diets or handling but proportionate increase in silos at the new sheds.

*Litter:* No change in management or handling but a proportionate increase in wood shavings used on site.

#### **5.10 Implications of the Variation on - Raw Materials Selection**

This application to vary permit PPC/A/1159728 shall not have any implications on raw material selection at the installation.

#### **5.11 Implications of the Variation on - Waste Minimisation Requirements**

This application to vary permit PPC/A/1159728 shall not have any implications on waste minimisation requirements at the installation.

#### **5.12 Implications of the Variation on - Water Use**

Water use within the food production sector is primarily a BAT issue as the operator of the installation is required under other legislation to provide an adequate supply of clean water for both the welfare of the birds and to undertake adequate cleaning of vehicles. It is up to the operator to demonstrate the use of BAT to minimise water usage but SEPA does directly regulate water use through permit conditions requiring the operator to minimise water consumption and explore options for minimisation.

The greatest volume of water consumed is drinking water for the birds. Fresh water will be delivered to poultry *via* nipple line drinkers with drip collection cups to prevent spillages (as outlined in the SFIR and BAT Conclusions). The drinking equipment will be inspected daily to minimise water leakages. Water consumption is monitored and recorded daily. Water pressure on the feed system is set to minimise the spill risk and the water is taken from the mains supply.

As a result of this variation to the permit there shall not be any changes in management or handling but a proportionate increase in water used on site for cleaning the sheds and watering the birds.

#### **5.13 Implications of the Variation on – Waste Handling, Waste Recovery or Disposal**

Two underground wastewater storage tanks will be used to collect contaminated water from the cleaning process at the new sheds.

Waste production and handling is expected to double in proportion to the increase in bird places but management and storage methods of waste shall not change.

#### **5.14 Implications of the Variation on – Energy**

The hen sheds at the farm have a computer-controlled heating system to maintain temperature within the housing. This is directly linked to the ventilation system to prevent over-heating and lack of free ventilation. SEPA recognises that energy usage is dependent on a number of factors outwith the control of the operator who has to maintain the welfare of the birds in extremes of weather.

The primary energy source used to power lights at the two new sheds are the newly-installed solar PVB panels. All other energy needs are served by the mains grid, as *per* the rest of the permitted installation. A standby generator is available by each shed for use in the event of mains outage and is maintained and routinely checked for emergency use only.

A permit condition requiring the formal systematic assessment of Energy Consumption on site requires the operator to identify where efficiencies can be made.

Energy use is expected to increase in proportion to the increase in bird places (by approximately 33%).

#### **5.15 Implications of the Variation for - Accidents and their Consequences**

There shall be no change to the risk or type of accidents and their consequences due to the proposals in this application to vary permit PPC/A/1159728.

#### **5.16 Implications of the Variation for – Noise**

The predominant source of noise from poultry units is generated from the ventilation systems. Other sources of noise related to this type of activity can include vehicle movements in and around the site and the placement and removal of the birds. The latter two are considered as being unlikely to cause issues as the activities will take place for such short durations as well as being infrequent. Regular maintenance of fans will also prevent noise and the noise management plan will address any issues that should arise and will be updated as stipulated in the permit.

The Permit, BAT Conclusions and SFIR recognise that noise can give rise to complaints; SEPA takes noise complaints from PPC Part A installations seriously and to this end requires the operator to undertake noise assessments and produce a Noise Management Plan to lessen the impact on the local environment.

Noise at the permitted installation is covered by the BAT Conclusions and Section 2.9 of the SFIR (which is considered by SEPA to be BAT) and which the operator is required to have regard to when operating an intensive agriculture site under the PPC Regulations.

With BAT and the required EMS in place there are no expected implications of this variation to permit PPC/A/1159728 on noise from the process.

To date, there has been no complaints of noise received.

#### **5.17 Implications of the Variation for – Monitoring**

Monitoring shall be in place of relevant raw materials, wastes, energy, point source emissions, noise, odour, animal places and mortalities in accordance with the increase in bird places and new sheds but management and monitoring methods shall not change. Please see Section 5.19 below regarding ongoing soil and ground/surface water sampling.

The IRPP BREF introduced BAT Associated Emission Limits (AELS) and the requirement to monitor (and this is interpreted to include a requirement to report) ammonia, dust and total N&P excreted.

BAT-AELs are legally binding therefore an operator must meet these levels. An operator can demonstrate compliance with this requirement using emission factors. The original permit stipulated AEL's for the wrong livestock type - stating caged layers, this has been amended. It also omitted the AEL for dust which has been amended in this variation to the permit.

#### 5.18 .Implications of the Variation for – Closure

This application to vary permit PPC/A/1159728 shall not have any implications on decommissioning plans except to consider two further sheds with associated infrastructure and monitoring. The Decommissioning Plan shall be revised as required as *per* Permit Condition 2.14.4.

#### 5.19 Implications of the Variation for - Site Condition Report (and where relevant the baseline report)

A Site Condition and Baseline Report for the additional land was submitted as part of this application for a substantial variation to the permit. The conclusions of this Baseline Report were accepted by SEPA and the sampling locations shall be added to the Applicant's ongoing monitoring requirements of soil and surface/ground water.

Representative surface water sampling has been accepted instead of groundwater sampling. This monitoring shall be undertaken *en lieu* of groundwater sampling and, if analytical trends identify any potential issues, groundwater sampling shall be instated in accordance with other PPC Part A Permitted Installations.

#### 5.20 Implications of the Variation for - Consideration of BAT

It has been demonstrated by the operator and stipulated above that BAT (as *per* the IRPP BRef 2017) has been considered for the following:

- Surface Water;
- Soil & groundwater;
- Ammonia;
- Dust;
- Odour;
- Noise;
- Raw Materials;
- Water Use;
- Waste;
- Energy;
- Incident Management;
- Site Management.

## 6 OTHER LEGISLATION CONSIDERED

### ***Nature Conservation (Scotland) Act 2004 & Conservation (Natural Habitats &c.) Regulations 1994***

**Is there any possibility that the proposal will have any impact on site designated under the above legislation?** There are 10 Designated Sites under the above legislation within 10km of the Permitted site (threshold dictated by SEPA Nature Conservation Procedure NCP-P-01). During the pre-application stage the consultant submitted the initial Simple Calculation of Atmospheric Impact Limits (SCAIL) for agriculture for assessment. This screening used an outdated emission factor and the CO required

clarification of this and the sensitivity of the designated sites as some critical load lower thresholds were showing breaches.

Corrected assessment by the SEPA Terrestrial Ecology Specialist found that these potential exceedances were anomalous and in actuality the SCAIL showed that no sites would be impacted by the introduction of this farm.

**Justification:** Following corrected screening by SEPA the whole installation of 6 sheds showed no unacceptable or significant impacts for ammonia concentration, nutrient nitrogen deposition and acid deposition at all 10 designated sites.

The SEPA Terrestrial Ecology Specialist confirmed that the critical level for ammonia concentration for higher plants (3 ug/m<sup>3</sup>) applies to all the designated sites within the screening distance of Hutton Hall Barns to the critical load lower threshold breaches were negated.

Most of the designated sites within the screening distance are not sensitive to air pollution or do not have habitat-specific critical loads to deposition.

**Screening distance(s) used** – 10km as per the SEPA Nature Conservation Procedure NCP-P-01

**Other legislation?**

The Water Environment (Controlled Activities) (Scotland) Regulations 2011 and Groundwater Directive (CAR) – There are no conflicts with ongoing CAR regulation of this process.

The Water Environment (Miscellaneous) Regulations 2017 take consideration of oil storage as BAT. There are no conflicts with ongoing CAR regulation of this process.

Nitrates Directive – This primarily applies to land-spreading activities outwith the process boundary. However, the sediment trap system to treat surface water drainage may enrich the ground locally and this enrichment must be considered with respect to the Nitrates Directive when designing.

Carcasses are dealt with under The Animal By-Products Regulations and are stored as a Directly Associated Activity (DAA) in the permit.

Medium Combustion Plant Directive (MCPD) - For all proposed plant >1MW regulated as DAA on IED installations, BAT will apply and SEPA should complete Local Air Quality Management and Nature Conservation Habitat screening. If required, SEPA impose monitoring of emissions within 4 months and then every 3 years with ELVs from Process Guidance Note 1/3 or the MCPD. There are no plant >1MW on site.

**7 ENVIRONMENTAL IMPACT ASSESSMENT AND COMAH**

**How has any relevant information obtained or conclusion arrived at pursuant to Articles 5, 6 and 7 of Council Directive 85/337/EEC on the assessment of the effects certain public and private projects on the environment been taken into account?** N/A

**How has any information contained within a safety report within the meaning of Regulation 7 (safety report) of the Control of Major Accident Hazards Regulations 1999 been taken into account?** N/A

**8 DETAILS OF PERMIT**

**Do you propose placing any non-standard conditions in the Permit: Yes**

New Conditions 3.3.6 and 3.3.7 are added as follows:

- 3.3.6 Prior to installation of a sustainable urban drainage system (SuDS) at Hutton Hall Barns Fourth Unit, the Operator must submit to SEPA for approval, the design of the SuDS fulfilling the requirements of the CREW Rural Suds Design and Build Guide. Installation of the SuDS at Hutton Hall Barns Fourth Unit shall not begin until the design has been agreed in writing by SEPA.
- 3.3.7 The Permitted Activities shall not be carried out at the Hutton Hall Barns Fourth Unit until an approved SUDS system has been installed at Hutton Hall Barns Fourth Unit.

The applicant has confirmed that the Sustainable Drainage System to treat surface and yard runoff via new sediment traps at Hutton Hall Fourth Unit will adhere to the guidelines the CREW Rural SuDS Guide, considered BAT for IA permitted installations. Final design of these SuDS demonstrating adherence has not been submitted but permit conditions requiring demonstration of BAT prior to installation of SuDS and that the applicant shall not operate the Fourth Unit until they are installed have been inserted into this variation.

The wording of the non-standard conditions has been approved by SEPA's Legal Unit.

**Do you propose making changes to existing text, tables or diagrams within the permit? Yes**

**Outline of changes in variation to permit PPC/A/1159728:**

1. Interpretation of Terms – inclusion of fourth Hutton Hall Barns installation (Unit) to whole site
2. 1.1.4.1 – Number of sheds increased to 6, livestock clarified as free range layers and bird places increased to 192,000
3. 1.1.5.1 – Number of diesel storage containers increased to 5
4. 1.1.5.2 – Number of silos replaced with “series”
5. 1.1.5.4 – Inclusion of above-ground water tanks
6. 1.1.5.6 – Number of fallen stock boxes increased to 6
7. 1.1.5.7 – Number of generators increased to 5
8. 1.2.4 – Replaced with Shed 5 Site Plan
9. 1.2.5 – Shed 6 Plan
10. 1.2.6 – Site Plan showing Site Boundaries
11. Table 2.3 – Revised to include submission dates and SuDS design required in non-standard 3.3.6
12. Table 3.2 – Revised to include 2 more generators
13. Table 3.3 – Revised to include 2 more SuDS discharges
14. 3.3.4 & 3.3.5 – Revised to include new SuDS discharge points
15. 3.3.6 & 3.3.7 – Non-standard conditions for final SuDS design prior to installation (see above)
16. Table 3.4 – Revised whole-site emissions table to correct actual livestock type and add dust.

**9 EMISSION LIMIT VALUES OR EQUIVALENT TECHNICAL PARAMETERS/ MEASURES**

**Are you are dealing with either a permit application, or a permit variation which would involve a review of existing ELVs or equivalent technical parameters? No**

## 10 FINAL DETERMINATION

Issue substantial variation to Permit PPC/A/1159728 - Based on the information available at the time.

**Issue third variation to Permit PPC/A/1159728** – Based on the information available at the time of the determination SEPA is satisfied that:

- The applicant will be the person who will have control over the operation of the installation,
- The applicant will ensure that the installation is operated so as to comply with the conditions of the Permit,
- That the operator is in a position to use all appropriate preventative measures against pollution, in particular through the application of best available techniques.
- That no significant pollution should be caused.

## 11 REFERENCES AND GUIDANCE

Standard Farming Installation Rules (SEPA's general sector Guidance)

Nature Conservation Procedure NCP-P-01

The assessment of potential impacts on designated sites of atmospheric emissions of ammonia from PPC intensive agriculture installations NCP-P-02

Sniffer ER26: Final Report on the update of the Simple Calculation of Atmospheric Impact Limits (SCAIL) (2014)

BAT Reference Document (BREF) BAT Conclusions for the Intensive Rearing of Poultry or Pigs (2017)

Rural Sustainable Drainage Systems – A practical design and build guide for Scotland's farmers and landowners (2016)

SEPA Guidance on Consultation under PPC (IED-PG-01-04)