

**Heads Inn Free Range Layer Unit
Hewitt Farming Limited
New Permit
Application Number PPC/A/1198279**

Draft for Consultation

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1 NON-TECHNICAL SUMMARY OF DETERMINATION

PPC requires that where the draft determination of an application or a SEPA-Initiated variation is to be subject to public consultation (this is usually referred to as PPD 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 by Hewitt Farming Limited is for a new free range egg production farm northeast of Lanark and housing a total of 64,000 places for laying hens. The site is located at Ordnance Survey grid reference NS 9869 4741. The permit application is made under Schedule 1 Section 6.9 Part A paragraph (a) of the Pollution Prevention and Control (Scotland) Regulations 2012.

The 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. 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 to ensure that it is 'friable and loose'.

Ventilation is by means of roof-mounted fan inlets with gable-end extraction and passive exhaust through the ground-level bird pop-holes. The living system is called 'aviary' and comprises nest boxes and pop-holes in the base of the houses so that the birds may roam. Manure is removed on manure belts to trailers two/three times per week. These trailers are then covered and spread to land for agricultural benefit. There are permit conditions to ensure that a Tree Belt Plan is produced and followed to plant trees to act as shelter for the ammonia emissions thereby reducing their impact on nearby Designated Sites and the surrounding environment. This mitigation is welcome but the determination of the application is not dependant on this shelter belt.

Maximum and minimum temperatures and relative humidity in the units are monitored and recorded daily and 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.

Birds will be on site for an average of 55-60 weeks. At the end of each cycle, the housing units will be de-stocked of birds and all soiled litter and manure completely removed manually into covered trailers and taken off site for land spreading for agricultural benefit. 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 provided 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 for more information on BAT at this site.

The installation of a Sustainable Drainage System to treat surface and yard runoff *via* new swales adhere to the guidelines the CREW SuDS Guide, considered BAT for IA permitted installations, on all but one

feature. The swales are wider than standard and shall be served by a weir to dissipate flow along the width of the swale in order to ensure swift but optimal treatment.

A Baseline Report has been submitted with consideration of the whole permitted farm 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. The proposed Permitted Installation of 64,000 places for free range laying hens replaces a dairy farm of 540 head of cows. During the pre-application stage SEPA accepted that this represents a reduction in ammonia emissions. Please refer to Sections HI 13 (Non-Technical Summary section Heads Inn Dairy Farm (former)) and HI 14 (Proximity of Designated Conservation Sites) of the supporting documentation accompanying the application. SEPA will condition validation monitoring of atmospheric ammonia at the designated feature. The monitoring purpose would be to validate earlier modelling provided with the East Park permit application (PPC/A/1171222) and demonstrate an overall reduction of ammonia and nitrogen deposition on Carnwath Moss SSSI.

Determination was therefore to issue the Permit PPC/A/1198279 based on the application (and subsequent revisions) 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
SNH	Scottish Natural Heritage (now known as NatureScot)
SSSI	Site of Special Scientific Interest
SAC	Special Area of Conservation
SPA	Special Protected Area
EAL	Environmental Assessment Level
PPD	Public Participation Directive
PM ₁₀	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

2 EXTERNAL CONSULTATION AND SEPA'S RESPONSE		
<i>Is Public Consultation Required - Yes</i>		
<i>Advertisements Check:</i>	<i>Date</i>	<i>Compliance with advertising requirements</i>
Carlisle and Lanark Gazette	30/12/2020	Yes
Edinburgh Gazette	29/12/2020	Yes
<i>Officer checking advert:</i> CO		
<i>No. of responses received:</i> None		
<i>Is PPC Statutory Consultation Required –</i>		
<i>Food Standards Scotland:</i> No response.		
<i>NHS Lanarkshire Health Board:</i> No response.		
<i>South Lanarkshire Council:</i> 28/01/2021 Response received: "No objection".		
<i>Strathclyde & Ayrshire NatureScot (formerly Scottish Natural Heritage) (PPC Regs consultation):</i> 15/01/2021 Response received: "We accept SEPA's assessment that the withdrawal of grazing and shift from management as a dairy unit to silage production should result in substantial net reductions in nitrogen losses from the holding." NatureScot assessed the damaging/significant effects on Designated Sites as either negated (as they would not be sensitive to nitrogen deposition), or "unlikely/mitigated" due to measure taken both on- and off-site.		
<i>Discretionary Consultation - No</i>		
<i>Enhanced SEPA public consultation - No</i>		
<i>'Off-site' Consultation - No</i>		
<i>Transboundary Consultation - No</i>		
<i>Public Participation Consultation - Yes</i>		
STATEMENT ON THE PUBLIC PARTICIPATION PROCESS 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.		
<i>Date SEPA notified applicant of draft determination</i>	TBC	

<i>Date draft determination placed on SEPA's Website</i>	23/06/2021
<i>Details of any other 'appropriate means' used to advertise the draft.</i>	TBC
<i>Date public consultation on draft permit opened</i>	23/06/2021
<i>Date public consultation on draft permit consultation closed</i>	TBC
<i>Number of representations received to the consultation</i>	TBC
<i>Date final determination placed on the SEPA's Website</i>	TBC

3 ADMINISTRATIVE DETERMINATIONS

Determination of the Schedule 1 activity

As detailed in the application and supporting documentation.

Determination of the stationary technical unit to be permitted:

As detailed in the application and supporting documentation.

Determination of directly associated activities:

As detailed in the application and supporting documentation.

Determination of 'site boundary'

As detailed in the application supporting documentation.

Officer: CO

4 INTRODUCTION AND BACKGROUND

4.1 Historical Background to the activity and variation

This application by Hewitt Farming Limited is for a new free range egg production farm northeast of Lanark housing a total of 64,000 places for laying hens. The site currently was historically fields farmed for arable and is considered greenfield. This application is for 2 sheds (themselves split into 2 houses) to accommodate a total of 64,000 free range layers and accompanying egg processing hall called the Central Service Area.

One mile away the company reared 540 heads of dairy cows but this enterprise has now closed and shall not be resumed. Operations of that site included the storage and management of silage and slurry in an above ground slurry tank and spread onto the fields associated with the farm; principally those alongside Carnwath Burn and adjacent to Carnwath Moss SSSI. During pre-application discussions (including with NatureScot) the historic emissions (now terminated) from Heads Inn Farm were compared with those proposed from the free range egg unit. The results show net nitrogen emissions will be significantly reduced by removing the dairy operations and replacing it with the free range egg production from 64,000.

The application was determined after the publication of the BRef and the BAT conclusions published in February 2017, so the applicant was required to demonstrate that all the sheds were 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 store (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.

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. Hewitt Farming Limited proposes to have 64,000 places for free range birds for egg production.

Other Directly Associated Activities include:

- Feed preparation and storage;
- Generator and fuel storage;
- Water storage;
- Chemical storage;
- Manure handling and storage;
- Dirty water storage;
- Storage of fallen stock prior to disposal;
- Tree shelter belt planting and management;
- Management of lightly contaminated surface water.

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

Heads Inn Free Range Layer Unit is within 10km of the following 10 NatureScot (formerly Scottish Natural Heritage) designated sites:

SITE NAME	NATIONAL GRID REFERENCE
Carnwath Moss SSSI	NS 977482
Carstairs Kames SSSI	NS 961474
Cranley Moss SAC	NS 935475
Cranley Moss SSSI	NS 935475
River Clyde Meanders SSSI	NS 971441
Clyde Valley Woods SAC	NS871485
Cleghorn Glen SSSI	NS 890454
Braehead Moss SAC	NS 958515
Braehead Moss SSSI	NS 958515
Tinto Hills SSSI	NS 953 343

See Section 4.1 above regarding the modelled net reduction in ammonia emissions from Hewitt Farming Limited farming operations and therefore Designated Sites within 10km of the poultry unit shall not be negatively impacted by the farm.

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 emissions should be prevented.

There were no human health sensitive receptors were identified within 250 metres as part of the required screening of PM₁₀ emissions from this site. The site is located in a rural area with outspread residences with the nearest 350 metres from the sheds.

5 KEY ENVIRONMENTAL ISSUES

5.1 Summary of significant environmental impacts

SEPA have identified a number of environmental impacts (not necessarily significant) these are identified as follows:

Emissions to Air	Ammonia, dust (PM ₁₀) and odour
Emissions to Land	Waste, faecal material and nutrient inputs to land
Emissions to Water	Surface water discharge to surface water and indirect to groundwater
Other Emissions	Noise
Associated risks	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.

There were no human health sensitive receptors identified within 250 metres as part of the required screening of PM₁₀ emissions from this site.

See Sections 4.1 and 4.4 above regarding the modelled net reduction in ammonia emissions from Hewitt Farming Limited farming operations and therefore Designated Sites within 10km of the poultry unit shall not be negatively impacted by the farm.

5.2 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 Heads Inn Poultry Farm housing and ventilation conform to the BAT Conclusion 31 (Technique b4) in the BREF BAT Conclusions published on 21 February 2017.

In order 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 DEFRA-approved figure for Layers (ammonia produced by an average sized bird) given in the application form the company supplied calculations indicating that the ammonia released from the installation at Heads Inn would be on average 5030 kg/yr (based on a population of 64,000 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). The proposed Permitted Installation of 64,000 places for free range laying hens replaces a dairy farm of 540 head of cows. During the pre-application stage SEPA accepted that this represents a reduction in ammonia emissions. Please refer to Sections HI 13 (Non-Technical Summary section Heads Inn Dairy Farm (former)) and HI 14 (Proximity of Designated Conservation Sites) of the

supporting documentation accompanying the application. SEPA will condition validation monitoring of atmospheric ammonia at the designated feature. The monitoring purpose would be to validate earlier modelling provided with the East Park permit application (PPC/A/1171222) and demonstrate an overall reduction of ammonia and nitrogen deposition on Carnwath Moss SSSI. NatureScot were equally involved in this decision and accept SEPA's assessment that the withdrawal of grazing and shift from management as a dairy unit to silage production should result in substantial net reductions in nitrogen losses from the holding.

Dust (PM₁₀)

PM₁₀ 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 Heads Inn Poultry 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

In order to quantify the amount of ammonia which will be emitted, SEPA use DEFRA-approved emission factors. The emission factors are specific to each proposed housing system. The SCAIL 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 Generator

As 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 a nearby purpose-built wind turbine and will augment power from the mains grid electricity when required. There is however a diesel generator used as a back-up power unit at Heads Inn to provide power 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 Point Source Emissions to Surface Water and Sewer

There are no public sewers within the vicinity of Heads Inn and therefore there will be no discharges to the sewer.

A septic tank will be installed to collect all domestic waste water from the welfare amenities and discharge to a full soakaway north of the poultry sheds. This is to be authorised under The Water Environment (Controlled Activities) (Scotland) Regulations 2011. The foul effluent system is not considered part of the Permitted Installation and will be a very small discharge from the amenity area.

Surface water run-off from the poultry sheds, scratch areas and low-contamination yards are directed to two swales (please see H1 Drawing Design Criteria for Swales, H1 Drg 1 Drainage layout and H1 16 Design Criteria for SuDS in the application supporting documentation). The lightly contaminated water is directed to SuDS for which the relevant capacity calculations have demonstrated adequate storage for this purpose. The installation of a Sustainable Drainage System to treat surface and yard runoff *via* new swales adhere to the guidelines the CREW SuDS Guide, considered BAT for IA permitted installations, on all but one feature. The swales are wider than standard and shall be served by a weir to dissipate flow along the width of the swale in order to ensure swift but optimal treatment.

5.4 Point Source Emissions to Groundwater

There shall be no direct point source emissions to groundwater as a consequence of this application. The applicant has demonstrated that the swales are sufficiently sized and, if maintained properly, will provide sufficient treatment of all lightly contaminated run off so that this is not considered to be a point source discharge to groundwater.

SEPA has assessed as satisfactory the Baseline Report submitted with the application subsequent to further clarifications. This report evaluates past potential contamination and future pollution risks to both soil and groundwater (please see Section 5.19 of this Decision Document). After some further clarifications regarding future borehole installation and the location of the former Heads Inn farm one mile away from the proposed poultry farm, the conclusions presented in the Site Condition and Baseline Reports were accepted.

5.5 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 draft permit). 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 Fugitive Emissions to Water

There are a number of 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 is installing SuDS which shall have been designed to be fit-for-purpose and meeting BAT. All above ground SuDS (e.g. the swales) and ditches within the site boundary shall be fenced to prevent ingress from the roaming layers.

5.7 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 Partnership is advised by SEPA to have regard to the BAT contained within Section 2.8 of SEPA's Standard Farming Installation Rules which deals with odour management.

5.8 Management

Good site management is a requirement not only of the PPC Regulations but also the Food Safety Act 1990, regulated by the Food Standards Agency, and the Animal Welfare Act 2006. Agricultural installations are subject to a whole raft of regulatory controls requiring Operators to operate installations to a high standard both to ensure welfare of animals and to prevent materials entering the food chain.

Permit condition 2.1.5 requires that the permitted activity is operated in accordance with an environmental management system (EMS). The BREF requires that in order to improve the overall environmental performance, the EMS should incorporate the following key features:

- Management commitment
- Environmental policy
- Financial planning and investment
- Relevant procedures (training, record keeping, maintenance, emergency procedures)
- Checking performance (monitoring, preventative action, auditing)
- Review
- Continual improvement
- Benchmarking
- Noise Management Plan
- Odour management Plan

5.9 Raw Materials

Chemicals:

Chemicals used in poultry rearing include cleaning and disinfection chemicals, pesticides, rodenticides, herbicides, insecticides and fungicides. All of these chemicals are required to be DEFRA-approved. Chemicals will be delivered to Heads Inn and either stored in locked chemical stores or brought on site solely for cleaning and then removed. Once on-site chemicals will be kept within bunded containers within the storage area of the poultry unit.

Gas oil:

Gas oil (also known as red diesel) is stored within the bunded generator itself and there is no separate storage on site. The fuel storage is compliant with The Water Environment (Miscellaneous) (Scotland) Regulations 2017.

Water:

Water is sourced from a borehole on site and stored in overhead tanks in the sheds (this is a revision to the application as initially submitted). Mains water is available if required (use is discussed below in Section 5.12).

Feed:

Feed will be supplied to site, pre-mixed, into 4 fully enclosed silos each fitted with cyclone particle containment and mitigation. Feed will then be transported into the feed chain systems within the units by augers. Any feed spillages will be cleared up immediately to prevent any potential contamination of ground water or watercourses. Rations will be formulated by poultry nutritionists and the company veterinary surgeon. Feed specifications will be created to minimise the amount of nitrogen and phosphorous excreted by the birds over the flock cycle by optimising crude protein output and feed utilisation. A nutrition plan will be available on request. SEPA is satisfied that this meets the requirements of SFIR and BAT.

Litter:

Up to 14 tonnes of wood shavings and chips will be used as bedding litter at the beginning each cycle and no other shall be stored on site.

5.10 Raw Materials Selection

Records are kept to comply with Farm Assurance Schemes with regard to feed type and quantity. The standard permit condition requiring the formal assessment of resource utilisation on site will allow the operator to identify where any efficiencies can be made.

5.11 Waste Minimisation Requirements

As a commercial operation, SEPA believes it is in the interest of both the company and the environment to minimise waste on the site, as a result SEPA encourages all companies applying for PPC Part A permits to examine their Raw Materials usage and seek ways to reduce their impact on the environment. To this end, SEPA has included permit conditions requiring the operator to minimise waste and where possible develop and implement recycling strategies.

Records will be kept on site of all waste streams and the source, quantity and disposal routes taken. This data will be reviewed every 4 years in the resource efficiency report required in the permit.

5.12 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 standards). The drinking equipment will be inspected daily to minimise water leakages. Water consumption will be 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.

5.13 Waste Handling, Waste Recovery or Disposal

Two underground wastewater storage tanks at each house gable end (by the Central Service Area) will be used to collect contaminated water from the shed cleaning process.

Foot washes are located at various locations around the site and spent disinfectant is emptied into the underground wastewater tanks. Where a disinfectant or effluent from cleaning may contain list I or II substances, washwater must be exported from site and disposed of at a suitably licenced facility. When a disinfectant does not contain list I or II substances, washwater can be spread to land in accordance with GBR18.

The application's supporting information states that the washwater tanks will contain biocides such as Virex, Viroguard, formaldehyde, Aqua 50, Microquat and pesticides such as Glyphos, Ficam W, Mitex and Elector.

Empty containers (e.g. disinfectant, cleaning products, etc.) will where possible be returned to the supplier. If that is not possible they will be thoroughly rinsed (to wash water tank) and flattened prior to collection and disposal by a licensed contractor.

Mortalities are stored in a freezer in the Central Service Area for collection as required by registered contractors under the fallen stock scheme. All disposal of carcasses will be undertaken in accordance with the Animal By-Products (Scotland) Regulations 2003.

The volume of other wastes stored on the site is minimal and all will be considered in the relevant section of the resource efficiency assessment required under the standard permit condition. The onus of Duty of Care shall apply to all waste management at the installation.

Soiled litter will be removed from the houses *via* conveyors into trailers 2-3 times *per* week and taken to a location outside of the installation boundary where it is stored prior to being spread onto land.

5.14 Energy

The poultry sheds at the farm have a computer-controlled heating system in order 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.

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

In 2015 a wind turbine was installed at the company's nearby BHC Fabrication site capable of generating 500kW of electricity and to which Heads Inn operations shall be connected.

The site shall be powered primarily from a nearby purpose-built wind turbine and will augment power from the mains grid electricity when required. There is also a diesel generator used as a back-up power unit at Heads Inn to provide power in the event of a mains outage.

5.15 Accidents and their Consequences

The Pollution Prevention and Control (Scotland) Regulations 2012 specifically preclude SEPA from adding conditions to a Permit regarding the Health and Safety of Staff or workers on-site; however should an accident or incident occur that is likely to pose a risk to the environment or harm to human health in the wider community then SEPA would require, under the conditions of the permit, that not only must the Operators take action to limit the immediate environmental impact but where necessary implement changes to try to ensure that the event doesn't happen again.

In general all accidents or incidents likely to cause pollution and all complaints to the site regarding nuisance emissions are required by the Permit to be recorded and dependent on the severity notified to SEPA.

Incident Reporting is covered by Condition 2.11 of the Permit which requires the operator to produce an Incident Prevention and Mitigation Plan as *per* SFIR and BAT.

5.16 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 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 Section 2.9 of the SFIR which is considered by SEPA to be BAT which the operator is required to have regard to when operating an intensive agriculture site under the PPC Regulations.

5.17 Monitoring

SEPA places a lot of emphasis on self-monitoring and record-keeping as keys to the successful running of a PPC installation. As a result the operator is required within the permit to undertake odour and noise assessments. General monitoring of the site is also covered in the Permit as a specific requirement, SEPA expects the company to use monitoring to correct deficiencies within the activity and to alleviate any nuisance.

Monitoring is required to assess operational conditions and environmental performance. Various permit conditions require the operator to monitor the level of inputs and the volume of outputs, to consider how changes made benefit the environment. The 2017 BREF introduces the following additional monitoring requirements

- The total nitrogen and total phosphorus excreted in manure
- Ammonia emission to air
- Dust emissions
- Process parameters

The European Commission during deliberations around the revised BREF, accepted the proposal from the UK technical Working Group to estimate emissions by using DEFRA approved emission factors.

Process parameters include water consumption, energy consumption, fuel consumption, the number of incoming and outgoing animals, feed consumption and manure generation. This is already well documented and will be formally required via the resource utilisation permit condition.

During the pre-application stage SEPA accepted that there will be a reduction in ammonia emissions due to the cessation of the dairy operations in favour of this poultry unit. Please refer to Sections HI 13 (Non-Technical Summary section Heads Inn Dairy Farm (former)) and HI 14 (Proximity of Designated Conservation Sites) of the supporting documentation accompanying the application. SEPA will condition validation monitoring of atmospheric ammonia at the designated feature. The monitoring purpose would be to validate earlier modelling provided with the East Park

permit application (PPC/A/1171222) and demonstrate an overall reduction of ammonia and nitrogen deposition on Carnwath Moss SSSI.

Monitoring requirements held within the permit also include any relating to the generator exhausts. It is stated that the standard Ringelmann 1 will be used at start up and during operation.

5.18 Closure

Standard conditions, shown as Condition 2.14 of the permit, will be appropriate for this installation including the production of a Decommissioning Plan for the installation. The operator has agreed to meet the SFIR for Decommissioning.

In order to ensure that the site can be returned to its pre-PPC Permit state SEPA have required the company detail any pre-application problems prior to permitting so that a site surrender report can be compared with the Site Condition and Baseline Reports. Conditions are contained in the permit to cover this. Surrender of the permit is by an application to SEPA who have to be satisfied that the requirements of Regulation 19 of the PPC Scotland Regulations 2012 (as amended) are complied with.

As *per* the PPC Regulations the Applicant shall need to remediate the site where required to the levels cited in the baseline report (please see Section 5.19 below for more information).

5.19 Site Condition & Baseline Reports

As *per* Regulation 48 of the PPC Regulations a baseline report was submitted with the Site Condition Report. SEPA has assessed as satisfactory the Baseline Report submitted with the application (after further clarifications submitted *via* email). This report evaluates past potential contamination and future pollution risks to both soil and groundwater. After some further clarifications regarding borehole installation and the location of the former Heads Inn farm one mile away from the proposed poultry farm, the conclusions presented in the Site Condition and Baseline Reports were accepted.

Groundwater-fed surface water and 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.

Annual water and soil sampling and analyses were recommended by SEPA's Water Resources Specialist after assessment of the Baseline Report due to the sensitivity of the nearby receptors (particularly Carnwath Moss SSSI).

5.20 Consideration of BAT

It has been demonstrated by the operator and stipulated above that BAT (as *per* the BREF Document 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? No

Justification: One mile away the company reared 540 heads of dairy cows but this enterprise has now closed and shall not be resumed. Operations of that site included the storage and management of silage and slurry in an above ground slurry tank and spread onto the fields associated with the farm; principally those alongside Carnwath Burn and adjacent to Carnwath Moss SSSI. During pre-application discussions (including with NatureScot) the historic emissions (now terminated) from Heads Inn Farm were compared with those proposed from the free range egg unit. The results show net nitrogen emissions will be significantly reduced by removing the dairy operations and replacing it with the free range egg production from 64,000 birds. Therefore, Designated Sites within 10km of the poultry unit shall not be negatively impacted by the farm.

SEPA will condition validation monitoring of atmospheric ammonia at the designated feature. The monitoring purpose would be to validate earlier modelling provided with the East Park permit application (PPC/A/1171222) and demonstrate an overall reduction of ammonia and nitrogen deposition on Carnwath Moss SSSI.

Screening distance(s) used – 10km as per the SEPA Nature Conservation Procedure guidance 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 swale 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 at the time of permit issue.

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

Outline of non-standard conditions: See Conditions 3.4.3 and 3.4.4 regarding monitoring of atmospheric ammonia at Carnwath Moss SSSI (precedent in PPC/A/1157119 Permit for Garpit Poultry Unit).

3.4.3 By 1 October 2021, the operator must prepare and submit to SEPA a detailed monitoring plan to assess the impact of ammonia deposition on the Morton Loch SSSI, which shall include, but should not be limited to: a) the methodology to be used to assess the impact of ammonia deposition from the installation on Morton Loch SSSI; b) the locations at which monitoring shall be carried out, which shall include a minimum of six marked vegetation quadrats; and c) the timing and frequency of monitoring.

3.4.4 The operator shall carry out monitoring in accordance with the monitoring plan required by condition 3.4.3, and report the results of monitoring to SEPA annually.

Details including justification: One mile away the company reared 540 heads of dairy cows but this enterprise is now closed and shall not be restarted. Operations of that site included the storage and management of silage and slurry in an above ground slurry tank and spread onto the fields associated with the farm; principally those alongside Carnwath Burn and adjacent to Carnwath Moss SSSI. During pre-application discussions (including with NatureScot) the historic emissions (now terminated) from Heads Inn Farm were compared with those proposed from the free range egg unit. The results show net nitrogen emissions will be significantly reduced by removing the dairy operations and replacing it with the free range egg production from 64,000 birds.

The monitoring purpose would be to validate earlier modelling provided with the East Park permit application (PPC/A/1171222) and demonstrate an overall reduction of ammonia and nitrogen deposition on Carnwath Moss SSSI.

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? Yes - Yes - BAT Associated Emission Limits (AELs) are a requirement introduced in the IRPP BREF (February 2017) for ammonia and total nitrogen and total phosphorus excreted have been inserted as Table 3.4 of the permit. As part of the BREF review and 2017 publication of the BREF it was accepted by the Commission that operators could use emission factors to demonstrate compliance with the BAT Annual Emission Limits for ammonia. The AEL range for layers in a non-cage system is 0.02-0.13 kgNH₃/animal place/year. The emission factor used for a free range aviary system is 0.108 kgNH₃/animal place/year, which is comfortably within the required range. The operator will be required to confirm on an annual basis that the DEFRA emission factor still applies and that no changes have been made.

The AEL range for total nitrogen excreted from layers is 0.4-0.8 kg/animal place/year and total phosphorus is 0.10-0.45. There are presently no approved emission factors but it is expected that data

indicating compliance will be submitted by industry representatives on behalf of the sector as a whole and this is being encouraged by the UK technical working group.

Emission limit values - Air

Substance: Generator exhaust (smoke)

Relevant emission benchmarks: Industry standard for visual monitoring of stacks

ELV: Ringelmann Shade 1 during start up. No visible smoke during operation.

Emission point: Generator Stack

Rationale: Included to prevent conflict with Condition 2.5.1 of the permit. The generator is only used in reserve situations when the turbine and Mains Power are unavailable to ensure the health and safety of the livestock, operators and receptors and the regulatory compliance of the installation.

Emission limit values - Water

Substance: Treated surface water

Relevant emission benchmarks: The Water Environment (Controlled Activities) (Scotland) Regulations 2011

ELV: No visible pollution (see Condition 3.3.4 of the permit).

Emission point: Outfall from swale system

Rationale: Included to prevent conflict with Condition 2.5.1 of the permit and to comply with BAT (Rural Sustainable Drainage Systems – A practical design and build guide for Scotland’s farmers and landowners).

10 FINAL DETERMINATION

Issue the permit PPC/A/1198279 – 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)

Draft for Consultation