Sunny Side Up Free Range Eggs Limited
Lochwood Farm
Saltcoats

Permit Application

PPC/A/5010052

Contents

1 Non-Technical Summary of Determination

Provide a non-technical summary of the process and determination

This application by Sunny Side Up Free Range Eggs Limited is for a new PPC Permit (PPC/A/5010052) due to the expansion of the free-range egg business and corresponding increase in bird numbers at Lochwood Farm, Saltcoats. There is currently an operational hen shed on site with the capacity for 32,000 free range hens (the unit is divided into two 16,000 bird sheds). The business is proposing an add additional 32,000 capacity hen shed, bringing the total capacity on the farm to 64,000 places for free range hens. The site is located at NS 2717 4519. 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 will be designed to minimise ammonia emissions, roofs and walls will be insulated with 100mm insulation to retain heat and reduce condensation. All lighting in the new shed will be low energy LED. All sheds will be built on an impermeable base.

Temperature and ventilation will be fully automated to ensure bird welfare and energy efficiency are optimised. Fresh air will be drawn in through roof inlet chimneys (positioned down the ridge line) and exhausted via six fans at each gable end. During warmer temperatures (>25 degrees centigrade) additional fresh air inlets on the side of the building will be opened to draw additional fresh air through the building which will be exhausted via fans at the gable end.

All of the site's power will be supplied by mains electricity. An emergency back-up generator will be provided for each house. The two generators will have internally bunded diesel storage.

Deadstock will be stored securely in a lidded contained and removed regularly by a specialist contractor in line with industry best practice.

The sheds will be aviary systems with birds introduced at around 16 weeks old the birds will remain in the houses until about 15 months later when they will be depleted. Once emptied, the sheds will be deep cleaned with wash water being contained in tanks within the buildings prior to being applied to land out with the site boundary.

The installation of a Sustainable Drainage System (SuDS) to treat drainage from poultry shed roofs, scratch areas and lightly contaminated yards via new swales adhere to the guidelines of the Rural Sustainable Drainage Systems A Practical Design and Build Guide for Scotland's Farmers and Landowners, published by Scotland's Centre of Expertise for Waters (CREW), considered BAT for IA permitted installations.

Feed is delivered to and stored in outside feed bins with dust suppression cyclones at both sheds and distributed in the housing via tracked feeders.

An area of tree shelterbelt has already been established around the existing Lochwood shed (Lochwood 1), the trees are approximately 8 years old. It is proposed to install a similar tree shelterbelt to surround the new proposed building (Lochwood 2) however this belt will surround the housing and will be deeper on the downwind north side.

Manure will be removed via manure belts twice a week and taken offsite, out with the permitted site boundary to be spread to land as an agricultural fertiliser. In the new proposed building manure will be dried using air which will be forced across the belts by pipes. Forced air drying of manure has been proven to reduce ammonia emissions. Manure is taken directly off site and there is no permanent on site manure storage.

Collectively, these measures are intended to prevent and reduce the production and release of ammonia, odours and dust from the shed, to prevent liquid washings escaping to the environment and to manage

the waste produced on site. The permit application indicates that the installation will be operated in accordance with Best Available Techniques.
Glossary of Terms
BAT - Best Available Techniques BREF – Best Available Techniques Reference Document BAT-C – Best Available Technique Conclusions CO – Coordinating Officer CREW – Scotland's Centre of Expertise for Waters ELV – Emission Limit Value IA – Intensive Agriculture SuDS – Sustainable Drainage System LED – Light Emitting Diode

2 External Consultation and SEPA's response			
Is Public Consultation Required? (if no delete rows below)			**Yes**
Advertisement Check:	**Date**	**Compliance with advertising requirements**	
Edinburgh Gazette	**18/02/2025**	**Yes**	
Ardrossan & Saltcoats Herald	**19/02/2025**	**Yes**	
Officer Checking advert: CO			
No of responses received	None		
Is PPC Statutory Consultation Required? (if no delete rows below)			**Yes**
Food Standards Agency:	Response received 20/02/2025 – Concluded that it is unlikely that there will be any unacceptable effects on the human food chain from the emissions from this installation provided that all relevant regulations are complied with for food safety and the environment.		
Health Board:	NHS Ayrshire and Arran – Response received 12/02/2025 - The consultee stated "we have no public health concerns in terms of the emissions from this installation" but went on to raise some points to note several of which are not within SEPA's regulatory remit. These concerns are addressed below: **Biosecurity** The consultee expresses concern that no details to cover biosecurity were included in the application with regards to avian influenza, employee vaccination and visitors' disinfection. The PPC permit will impose conditions limiting the environmental impact from any disinfection facilities, however SEPA have no remit in terms of other biosecurity requirements such as employee vaccination and visitors disinfection. **Employee Health & Safety** The consultee raises concerns regarding public health and the health and safety of employees. The PPC Regulations specifically preclude SEPA from adding conditions to a Permit regarding the health and safety of staff or workers on-site, other legislation exists for that purpose. Permit conditions require that in the event of any incident or accident likely to pose a risk to the environment or harm to human		

	health in the wider community the operator is required to take action to limit the impact and where necessary implement changes to ensure that the event does not happen again. SEPA are therefore unable to comment further on possible public health concerns related to biosecurity and occupational health measures (vaccination, PPE etc). **Sampling** The consultee commented on the lack of regular monitoring of air, water or land surrounding the installation. The applicant has submitted a Site Condition and Baseline Report which contains sample analysis of soil and groundwater (or representative surface water). The PPC Permit will require ongoing soil and groundwater monitoring at a frequency assessed by SEPA to reflect the environmental risk from the activity. Air monitoring would only be required in event of an issue arising or an incident occurring. **Odour** The consultee expresses concerns regarding odour generated from manure handling, spreading of manure and cleaning out the poultry houses. SEPA acknowledges that odour from intensive agriculture installations can give rise to complaints and requires operators to undertake odour assessments, and to formulate and implement an Odour Management Plan to reduce the impact on the local environment. A standard permit condition will control odour across the site boundary but potential odour complaints from the spreading of organic material to land is the remit of the Local Environmental Health Department. The consultee states that the poultry houses are cleaned out every seven weeks which is not the case. This activity would take place no more than once per year. **Noise** The consultee highlights noise as a potential health effect. SEPA acknowledged that noise from intensive agriculture installations can give rise to complaints and requires operators to formulate and implement a Noise Management Plan to reduce the impact on the local environment. A standard permit condition will control noise across the site boundary and a noise management plan has been submitted with the application and will be implemented on sit.e **$PM_{2.5}$/PM_{10} (Dust)** The consultee raised a concern with regards to particulate matter, especially $PM_{2.5}$. In Scotland, air quality objectives are set out in the Air Quality (Scotland) Regulations 2000 (as amended). In determining the application SEPA must consider whether any air quality standards (AQS) might be breached. The AQS for PM_{10} measured as a 24 hour mean is 50µg m^{-3} not to be exceeded more than 7 times per year and measured as an annual mean, 18µg m^{-3}. The standard for $PM_{2.5}$ measured as an annual mean is 10µg m^{-3}.

	PM_{10} is particles 10 microns and below. $PM_{2.}5$ is particles 2.5 microns and below. Therefore, PM_{10} includes $PM_{2.5}$ and the standards for PM_{10} will be protective for $PM_{2.5.}$ Where sensitive receptors are located within 250 metres 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 objectives to be breached. **Organic Material to Land** The consultee raises a concern regarding the environmental risks of manure spreading. The land on which litter and manure will be spread does not form part of the permitted installation and is therefore not controlled under the PPC Permit. The spreading of poultry litter and manure is regulated under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), General Binding Rule 18, which stipulates rules for the storage and application of organic fertiliser. **Anti-microbial Stewardship** The consultee states that no detail is provided in the application regarding anti-microbial stewardship. Anti-microbial resistance (AMR) risks associated with organic material spreading to land are currently not regulated in Scotland, because AMR levels in soil are not routinely measured and key thresholds for these risks are unquantified. Consequently, there is no current scientific basis to support regulation. **Poultry vaccines and medicines** It is not clear what information the consultee requires regarding vaccines and medicines, however the PPC Permit requires vaccines and medicines to be stored securely and in a manner which contains any spillages and prevents discharge to the water environment.
Local Authority	Received 25/02/2025 – No objections provided mitigation details contained within the application document are implemented regarding noise, dust and odour.
Scottish Water	N/A
Health and Safety Executive	N/A
NatureScot	Received 14/02/2025 – There are natural heritage sites of both national and international importance within the vicinity of the site to which this application relates. However, it is our advice that these receptors will not be adversely affected by the proposed operations. both the applicant and SEPA themselves have confirmed that screening of this proposal found that the thresholds for further consideration were not met and that no further consideration of nitrogen deposition to these three SACs was therefore warranted. As such, it is our view that this proposal will not give rise to any likelihood of significant effects on the internationally important lowland raised bog habitat at any of the three SACs identified above. As such, no further appropriate assessment of this permit proposal needs to be undertaken by SEPA, and

	determination of the application can proceed in full compliance with the Habitats Regulations. The applicant's proposal states that potential pollution and the risk of run-off will be dealt with at their site by a Rural Sustainable Drainage System (SuDS) in the form of a swale designed to best practice guidelines. SEPA have subsequently confirmed to NatureScot that regular soil and groundwater monitoring will also be required from the applicant / site operator at set time intervals, which should provide evidence/reassurance that none of the operations to which this permit relates will lead to any associated pollution leaving the site towards the SSSI. As such, we can confirm that adverse impacts on the Ashgrove Loch SSSI are unlikely – but that if pollution from run-off does arise, this will be identified in a timely manner which should allow for it to be address before any significant impacts on the habitats of the SSSI can occur.

Discretionary Consultation required? (if yes provide justification and details below, otherwise delete row)	**No**
Enhanced SEPA Consultation required? (if yes provide justification and details below, otherwise delete row)	**No**
"Off site" consultation required (if yes provide justification and details below, otherwise delete row)	**No**
Transboundary Consultation required? (if yes provide justification and details below, otherwise delete row)	**No**
Is Public Participation Consultation Required? (if yes provide justification and details below, otherwise delete rows below)	**Yes**
Date SEPA notified applicant of draft determination	07 July 2025
Date draft determination placed on SEPA's Website	07 July 2025
Details of any other 'appropriate means' used to advertise the draft. Seek advice from the communication department	
Date public consultation on draft permit opened	07 July 2025
Date public consultation on draft permit consultation closed	
Number of representations received to the consultation	
Date final determination placed on the SEPA's Website	
Summary of responses and how they were taken into account during the determination:	
Summary of responses withheld from the public register on request and how they were taken into account during the determination: **REMOVE THIS BOX FROM ANY VERSION OF THIS DOCUMENT TO BE PLACED ON THE WEBSITE OR PUBLIC REGISTER. RETAIN IN THE VERSION FOR THE WORKING FILE.**	
Officer:	

3 Administrative determinations

Determination of the Schedule 1 Activity

As detailed in the application

Determination of the Stationary Technical Unit to be permitted

As detailed in the application

Determination of Directly Associated Activities

As detailed in the application

Determination of Site Boundary

As detailed in the application

Officer:	CO

4 Introduction and Background

4.1 Historical Background to the activity and variation

Lochwood Farm currently has 32,000 free range egg laying birds housed in a unit constructed in 2017. The application for a PPC permit is sought due to the businesses proposal to construct a second free range egg unit with a capacity for a further 32,000 birds. Bringing the total places for free range hens to 64,000.

4.2 Description of activity

Rearing poultry intensively in an installation with more than 40,000 places for poultry.

4.3 Outline details of the Variation applied for

N/A - New permit application.

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

None.

4.5 Identification of important and sensitive receptors

Lochwood Farm is within 10 km of 9 NatureScot designated sites as follows:

Site	Designation	Distance from unit
Ashgrove Loch SSSI	SSSI	1 km
Lynn Spout SSS	SSSI	3.5 km
Ardrossan to Saltcoats Coast	SSSI	4 km
Bogside Flats SSSI	SSSI	4.4 km
Dykeneuk Moss	SAC/SSSI	7.7 km
Cockinheadmoss	SAC/SSSI	9.3 km
Western Gailes	SSSI	9.5 km
Bankhead Moss	SAC/SSSI	9.5 km
Portencross Woods	SSSI	9.7 km

Two sensitive human health receptors (one existing and one proposed) were identified within 250m of the site as follows:

Receptor Name	Location	Distance from site
Lochwood Farmhouse	NS 27294 44948	187 metres
Proposed New Property	NS 27049 45440	150 metres

Officer:	CO

5 Key Environmental Issues

5.1 Summary of significant environmental impacts

SEPA have identified a number of potential environmental impacts which need to be assessed. These are identified as follows:

Emissions to Air: Ammonia, dust (PM10) and odour
Emissions to Land: Waste, faecal matter 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.

5.2 Emissions to Air

Point Source emission to air:

Ammonia (BAT 23 & 31)

Ammonia released from livestock manures and slurries and the nitrogen deposition resulting from ammonia emission, can negatively affect biodiversity. When atmospheric ammonia is emitted from agricultural sources, it can either be deposited directly (dry deposition) or transported within the atmosphere and be later deposited through rain or snow (wet deposition). At locations close to the source the predominant is for dry while wet is predominant further away.

Certain habitats and species are particularly susceptible. Bog and peatland habitats are made up of sensitive lichens and mosses which can be damaged even at low concentrations. The direct toxic effect on vegetation can result in the loss of such sensitive species which can then cause changes in animal and insect species composition. Deposition can also lead to soil acidification and leaching of excess nitrogen into ground and surface waters causing eutrophication. The main point source ammonia emission will come from the fans on the gable end of each shed.

Ammonia from poultry housing can give rise to adverse impacts to sensitive habitats located downwind. Ammonia is emitted via ventilation outlets. The following measures relating to housing unit design will be adopted to prevent or minimise emissions to air:

- Walls and roofs are insulated, shed floors are impermeable concrete.
- An automated system dispenses feed into feeders to minimise feed wastage through spillage.
- Non drip, low pressure nipple drinkers used to reduce wastage and maintain dry manure, thus reducing emissions of ammonia and odours.
- Gable mounted exhaust fans operate via a computer controlled system to ensure the internal environment is kept stable and at optimum. Aside from flock requirements, automated control of ventilation and humidity also helps to keep manure dry.
- Forced Air Drying on manure belts in Lochwood 2 is provided.
- Tree shelter belts are also proposed.

To quantify the amount of ammonia which will be emitted, SEPA use DEFRA-approved emission factors. The emission factors are specific to each housing system. Some housing systems are more efficient than others and will result in a lower emission factor. The proposed housing at Lochwood meets the description in BAT Conclusion 31 (b) (4) ‘manure belts (in case of aviary).

There are duties placed on SEPA for the protection of designated sites under The Conservation (Natural Habitats, &c.) Regulations 1994 and the Nature Conservation (Scotland) Act 2004. Lochwood lies within 10 kilometres of 9 designated sites, (please see Section 4.5 of this Decision Document).

SEPA uses the Simple Calculation of Atmospheric Impact Limits (SCAIL) to screen the impact of ammonia emissions and nitrogen and acid deposition on designated sites. SCAIL has been run for this proposal using the ammonia emission factor for free range laying hens of 0.09 kg NH3/bird place/year (ammonia produced by an average sized bird). SCAIL screening fails where Process Environmental Contribution (PEC) >100% and Process Contribution **(**PC) >4%.

Lynn Spout and Ardrossan to Saltcoat Flats were screened out as they are only designated for geological features which are not sensitive to nitrogen. Screening passed for all other designations without applying any reduction for forced air drying on Lochwood 2 which attracts a 60% reduction in the ammonia emission factor or for the proposed tree shelter belts and as such, no further detailed assessment was required.

Receptors	PC NH3 (ug m3)	NH3 Background (ug m3)	NH3 PEC (ug m3)	NH3 EAL (ug m3)	PEC NH3 as %EAL	PC NH3 as %EAL	PC N Dep (kg/ha/yr)	N Dep Background (kg/ha/yr)	N Dep Total (kg/ha/yr)	N Dep Critical Load (kg/ha/yr)	PEC N Dep as %EAL	PC N Dep as %EAL
Ashgrove Loch SSSI	0.51592	1.02	1.53592	3	51	17%	2.7	9.68	12.38	15	82.533333	18%
Bogside Flats SSSI	0.0539	0.98	1.0339	3	34	2%	0.28	9.45	9.73	10	97.3	3%
Dykeneuk Moss	0.02305	1.06	1.08305	1	108	2%	0.12	11.61	11.73	5	23460%	2%
Dykeneuk Moss (As above)	0.02305	1.06	1.08305	1	108	2%	0.12	11.61	11.73	5	23460%	2%
Cockinhead Moss	0.01744	1.11	1.12744	1	113	2%	0.09	12.07	12.16	5	24320%	2%
Cockinhead Moss (As above)	0.01744	1.11	1.12744	1	113	2%	0.09	12.07	12.16	5	24320%	2%
Western Gailes	0.01691	0.89	0.90691	1	91	2%	0.09	9.18	9.27	5	18540%	2%
Bankhead Moss| Beith	0.01683	1.1	1.11683	1	112	2%	0.09	12.11	12.2	5	24400%	2%
Bankhead Moss| Beith (As above)	0.01683	1.1	1.11683	1	112	2%	0.09	12.11	12.2	5	24400%	2%
Portencross Woods	0.01627	0.53	0.54627	3	18	1%	0.13	12.75	12.88	10	12880%	1%

Since tree planting is being proposed as best practice and is not required as ammonia mitigation, a formal condition requiring approval of planting has not been included.

Dust (BAT 11)

PM10 and PM 2.5 dust particles 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 limits 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 human health receptors are located within 250m of a poultry unit, SEPA requests the Applicant screens the emissions of particulate matter to establish whether the emission might cause any air quality standards to be breached. In the case of Lochwood there were 2 receptors identified within 250m of the proposal, Lochwood Farmhouse and a proposed new residential development to the north of the permitted site which was highlighted by the Local Authority Planning Department.

H1 criteria was used to screen the proposal for both receptors. The proposal marginally failed for Lochwood Farmhouse and also for the proposed new residential development. An information notice was served on the applicant on 18 March 2025 requesting that detailed dispersion modelling was undertaken to assess the likely process contributions from the proposed expansion and submitted to SEPA.

Detailed modelling for PM10 was undertaken by Redmore environmental and the report & conclusions sent to SEPA for review.

Predicted PECs were all below the air quality objectives.

Although the PEC for annual mean PM10 is around 50% of the assessment level, the actual Process Contribution is very small. This means the risk of an exceedance is very low, even allowing for significant uncertainty in the modelling.

Sensitivity testing carried out by Redmore confirms that results do not vary substantially when parameters are changed.

Overall, the modelling results were considered acceptable and the risk of exceeding the air quality objects is very low.

Fugitive emissions to air:

(BAT 1 & 11)

There are a number of potential fugitive emissions to air. These include the release of dust and 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. 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 BAT. 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.

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.

Odour:

(BAT 1, 12 & 13)

SEPA acknowledges that odour from intensive agriculture installations can give rise to complaints and requires operators to formulate and implement an Odour Management Plan to reduce the impact on the local environment.

SEPA has identified that the potential odour issues from the existing sheds and the proposed new shed are ammonia and general poultry smells, with secondary odours from the use of any chlorinated cleaning materials or disinfectants to clean the sheds.

BAT 1 requires the permit holder to produce an Odour Management Plan having regard to BAT 12 detailing odour techniques and reduction of odour emissions in accordance with BAT 13.

An Odour Management Plan has been submitted with the application and will be implemented on site. The permit will require that offensive odours are not emitted beyond the site boundary.

5.3 Emissions to Water

Point Source Emissions to Surface Water and Sewer:

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

Domestic wastewater will be directed to a septic tank served by a soakaway and will be regulated under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR Regs). The foul effluent system is not considered part of the Permitted Installation. The onus is on the applicant to ensure that all drainage to the foul effluent system is in compliance with the CAR Regs and does not cause environmental harm or impeded the function of the system.

Surface water run-off from the poultry shed roofs, scratch areas and lightly contaminated yards will be directed to a swale system for which the relevant capacity calculations have demonstrated adequate storage for this purpose. Drainage will be conveyed to the swales via solid pipes. The installation of a Sustainable Drainage System to treat lightly contaminated drainage via a new swale is in line with the CREW SuDS Guide, considered BAT for IA permitted installations.

SUD's will be designed in line with the CREW RURAL SuDS Practical Guide and are suitably sized to treat the relevant drainage areas. Therefore, there should be no emission in relation to SuDS treatment and so the permit variation does not contain discharge conditions or limits. Should SEPA become aware of an issue with the SuDS, e.g. evidence that contaminated run off being discharged to the SuDS or discoloration of a nearby watercourse, action will be taken under condition 3.3.1 "*Unless specified elsewhere in this authorisation, there must be no individual source emissions from the authorised place to the water environment, air or land*."

The applicant confirmed by email on 20/06/2025 that wash water from the packing area of the site will be directed to a sealed tank which would be emptied by a slurry tanker. The drainage would be taken offsite to be spread to land out with the site boundary along with cattle slurry from the wider farm enterprise. General Binding Rule 18 of the CAR Regs would regulate this activity.

Point Source Emissions to Groundwater:

There shall be no direct point source emissions to groundwater from any part of the permitted activities. The applicant has demonstrated the swale is designed in line with SEPA advice and are sufficiently sized. If maintained properly, they will provide sufficient treatment of all lightly contaminated run off so that this is not considered to be a point source discharge to groundwater.

Wash down is approximately once per annum. The application states that wash water from the proposed new unit will be directed and contained in sealed tanks within the buildings. The wash water is then taken off site (outwith the site boundary). As is the case with manure, once outside the boundary of the PPC site, washwater must be applied to land in compliance with the Water Environment (Controlled Activities) (Scotland) Regulations 2011 General Binding Rule 18 (GBR18).

Underground tanks must be regularly inspected and maintained to prevent unauthorised emissions to soil and groundwater.

In the absence of any borehole, the surface water monitoring points proposed in the baseline report are viewed as satisfactory and provide for continued monitoring of the sites performance.

Fugitive Emissions to Water:

(BAT 1 & 6)

There are several potential sources which could lead to fugitive emissions to water, these include: poorly maintained surfaces and drainage systems, bird delivery and collection contaminating surface waters, lack of care during cleaning of the chicken sheds and diesel tank filing 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 by requiring the permit holder to implement BAT and provide training to relevant staff in environmental issues and exercising a high degree of environmental management and continual maintenance of the activities they undertake.

The applicant will install SuDS to treat lightly contaminated drainage which shall be designed to be fit for purpose and meeting BAT.

A knapsack sprayer will be used to disinfect vehicle wheels when arriving at or leaving site. Areas of spraying must be at least 10m away from surface water drains and preparation of spray should be in a bunded area.

5.4 Noise

Noise (BAT 1, 9 & 10)

SEPA acknowledges that noise from intensive agriculture installations can give rise to complaints and requires operators to formulate and implement a Noise Management Plan to reduce the impact on the local environment. 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 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 prevent noise, and the Noise Management Plan will address any issues that should arise and will be regularly reviewed as stipulated by the permit.

Noise at the permitted installation is covered by Section 2.9 of the SFIR which is considered by SEPA to meet BAT Conclusions 9 & 10 which the operator is required to have regard to when operating an intensive agriculture site under the PPC Regulations.

A Noise Management Plan has been submitted with the application and will be implemented on site. Permit condition 2.8.1 requires that 'emissions from the Permitted Installation shall be free from noise and vibration at levels likely to cause pollution, as perceived by an Authorised Person outside the site boundary.

5.5 Resource Utilisation

Water use

(BAT 5)

Water use within the food production sector is primarily an animal welfare 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 infrastructure. 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 low leak nipple drinkers.

Energy use and generation

(BAT 8)

Welfare of the birds largely dictates energy use, but the new shed will be built to BAT including insulation lighting and ventilation.

A computer-controlled system maintains the temperature within the housing units.

Electricity will be provided by the grid and two standby generators will be available on site and will be well maintained and routinely checked for use in an emergency only.

Raw Materials Selection and Use

Annual use of raw materials will be considered in the Resource Utilisation Assessment required under standard permit condition 8.2. The operator will be expected to assess the use of each raw material and identify any major changes, losses or areas where efficiencies can be made and report the assessment and resulting actions taken to SEPA every four years.

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. The application site report states that all chemicals stored on site are stored securely in new stores.

Agricultural Fuel Oil:
AFO (also known as red diesel) is stored within the bunded generators. The bunded generators will meet the requirements of the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended). There will be no other fuel storage on site.

Water:
Water is wholly from mains supply. (Scottish Water). Water is used to supply drinking water to the birds.

Feed **(BAT 3 & 4):**

Feed will be supplied to the site, premixed, into four fully enclosed silos fitted with particle containment and mitigation. Feed will be then transported into the feed systems within the units by augers. No feed mixing or milling is done at site and feed specification is prepared by a nutrition specialist and supplied by UFAS accredited mills so that only approved ingredients are used. This will ensure that the correct feed is given in regard to the weight and age of hens. A record of all feedstuffs used, including manufacturer/miller, ingredients and quantity purchased will be kept by the operator.

Litter:
Clean wood shavings will be used on the floor of the poultry houses as bedding material for livestock at the start of each flock. Bedding material will not be stored on site and will only be delivered to site for use as required.

5.6 Waste Management and Handling

Waste Minimisation

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 IA PPC sites to examine their Raw Materials usage and seek ways to reduce their impact on the environment. Standard permit conditions require the operator to minimise waste and where possible develop and implement recycling or recovery 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.

Waste Handling

Dead stock will be removed regularly to a secure lidded container prior to being transferred offsite by a licensed contractor to be disposed of in accordance with the Animal By-Products (Enforcement) (Scotland) Regulations 2013.

Foot baths are located at various locations around the site. The foot baths have lids and will therefore not overtop in wet weather. Spent disinfectant will be disposed of into the underground washwater tank. 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 GBR 18

It is inevitable that a small number of eggs will end up in the litter and manure within poultry housing and will result in waste eggs being spread to land out with the permitted installation with the litter and manure, but the volume should be minimal and is considered by SEPA to be unavoidable.

Adding waste/broken eggs to the litter or manure after the eggs have been removed from the bird area, for example from grading/sorting facilities and packing stations, changes the status of the litter and manure and it all becomes a waste which will need to be collected and disposed of by an authorised waste contractor.

Waste/broken eggs must be collected, stored and disposed of appropriately. Broken eggs are a CAT 3 waste. If there is no facility on site to handle broken eggs the following procedure should be followed:

- Collect broken eggs in a plastic lined bucket / bin.
- Freeze in the plastic liner (in the fallen stock freezer is ok).
- Arrange for uplift as required by an authorised CAT 3 waste contractor.

The volume of other wastes stored on the site is minimal and will be considered in the relevant section of the Resource Utilisation Assessment required under the standard permit condition 8.2. The onus of Duty of Care shall apply to all waste management at the installation.

Waste Recovery or Disposal

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 IA PPC sites to examine their Raw Materials usage and seek ways to reduce their impact on the environment. Standard permit conditions require the operator to minimise waste and where possible develop and implement recycling or recovery 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.

5.7 Management of the site

Environmental Management System

BAT 1 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
- Odour management plan
- Noise management plan

BAT 2 requires good housekeeping to prevent or reduce the environmental impact and improve overall performance. This includes training, routine maintenance and an emergency plan.

The applicant has indicated that the installation will be operated in full compliance with Section 2.1 of the SFIR's.

Accidents and their Consequences

(BAT1)

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

operator 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. Emergency preparedness and response (incident prevention and mitigation) are required as per BAT 1 as part of the Environmental Management System for the site.

Closure

Standard conditions in the permit will be appropriate for this installation including the production of a Decommissioning Plan. The operator has agreed to meet Section 2.15 of the SFIR for Decommissioning.

The location for the new building is on a greenfield site. The applicant has provided Site and Baseline reports for the proposed extension to the poultry operations

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.

5.8 Site Condition report

Prior to poultry operations commencing the site for the existing building and the new building has been a green field site used for agriculture (grassland and grazing). The site is not within a Nitrate Vulnerable Zone. The surrounding land use is predominantly agricultural however there is also a disused coal mining area nearby.

The site report states that there have been no known hazardous substances with potentially polluting potential stored or used on the land and there have been no known spills accidents or pollution incidents to date.

Sampling of soils and surface water has been completed. Soil sampling was undertaken at the corners of each range and as there are no suitable boreholes nearby, surface water samples have been taken.

The site report states that the soil samples are all fairly consistent with nitrates between 1.0 and 4.6 mg/kg, ammoniacal nitrogen (as N) between 3.5 and 5.5 mg/kg and extractable phosphate as PO4 between 81 and 211 mg/kg. Sampling for hydrocarbons in relation to fuel storage was not required as the generators are located on hardstanding with no evidence of spills.

Water results show low levels of nitrates, 1.1 mg/l and both low levels of both ammoniacal nitrogen and reactive phosphorus - .05mg/l and <0.03mg/l respectively.

Soil Sample results:

Sample Point number & Location (approx. grid ref)	Nitrates (NO_3) (mg/kg)	Ammoniacal Nitrogen (as N) (mg/kg)	Extractable Phosphate as PO_4 by mass (mg/kg)
1. NGR NS 2722 4523	4.2	3.6	211
2. NGR NS 2722 4511	4.0	3.6	127

Sample Point number & Location (approx. grid ref)	Nitrates (NO_3) (mg/kg)	Ammoniacal Nitrogen (as N) (mg/kg)	Extractable Phosphate as PO_4 by mass (mg/kg)
3. NGR NS 2713 4525	1.9	4.4	158
4. NGR NS 2713 4514	3.4	3.6	121
5. NGR NS 2699 4534	2.3	3.6	81
6. NGR 2696 4524	2.4	5.5	169
7. NGR 2681 4527	4.6	3.7	118
8. NGR 2683 4527	2.2	3.5	108

Water Sampling results:

Sample Point number & Location (grid ref)	Nitrates (NO_3) (mg/l)	Ammoniacal Nitrogen (as N) (mg/l)	Reactive Phosphorus as PO_4 (mg/l)
1. NGR 2675 4523	1.1	0.05	<0.03

The site report indicates that once a permit has been obtained and the new housing constructed additional sampling points will be established upstream and downstream of each SuDS exit point.

In the absence of any borehole, SEPA would view representative surface water monitoring points as satisfactory.

Given the low level of risk posed by the installation SEPA have imposed the minimum frequency of soil and ground water monitoring of 10 and 5 years respectively.

5.9 Monitoring (BAT 24, 25, 26, 27 & 29)

Air

SEPA places a lot of emphasis on self-monitoring and record keeping to assess operational conditions and environmental performance.

Various permit conditions require the operator to monitor the level of inputs and the volume of outputs and to consider how changes made benefit the environment these conditions will remain in place following the variation. The 2017 BREF introduces the following additional monitoring requirements:

1. The total nitrogen and total phosphorus excreted in manure
2. Ammonia emissions to air
3. Dust emissions
4. 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 to comply with the monitoring requirements for 1-3 identified above.

Water

No surface water monitoring required. There shall be no direct point source emissions to surface water from any part of the permitted activities. The applicant has demonstrated the swale is designed in line with SEPA advice and are sufficiently sized. If maintained properly, they will provide sufficient treatment of all lightly contaminated run off so that this is not considered to be a point source discharge to surface water.

Soil and Groundwater

There shall be no direct point source emissions to soil or groundwater from any part of the permitted activities. Fuel storage (emergency generator) will be appropriately bunded inspected and maintained.

The applicant has demonstrated the swale is designed in line with SEPA advice and is sufficiently sized. If maintained properly, it will provide sufficient treatment of all lightly contaminated run off so that this is not considered to be a point source discharge to soil or groundwater.

Wash water will be collected and contained in a compliant tank with suitable capacity for one wash out cycle.

Routine Soil (every 10 years) and Groundwater (every 5 years) is already required by the existing permit.

Any issues highlighted as a result of this routine monitoring would generate further investigation or mitigation.

Waste

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 IA PPC sites to examine their Raw Materials usage and seek ways to reduce their impact on the environment. Standard permit conditions require the operator to minimise waste and where possible develop and implement recycling or recovery 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.

5.10 Consideration of BAT and compliance with BAT-Cs if appropriate

SEPA published its view of "indicative" BAT relating to intensive agricultural operations in its Standard Farming Rules (SFIR). SFIR's are based on the BAT Reference Document (BREF) for Intensive Agriculture Installations published by the European IPPC Bureau in 2017. These SFIR's have been used throughout this permit to benchmark farming activities. The permit application indicates that the installation will be operated in accordance with Best Available Techniques.

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? If yes, provide information on the action and justification below:	**No**
Screening distance(s) used	10km
Is there any other legislation that was considered during determination of the permit (for example installations that may be impacted by the requirements of legislation involving Animal By Products, Food Standards, Waste, WEEE regulations etc). If yes, provide information on the legislation, action and justification below:	**Yes**

The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR):
This primarily applies to land spreading activities that will be taking place out with the site boundary and will be regulated under GBR18.

Foul drainage systems will be regulated separately under CAR and will not form part of the permitted installation.

The requirements for the generator oil storage under these Regulations are met. There are no conflicts with ongoing CAR regulation of this process.

Animal By-Products (Enforcement) (Scotland) Regulations 2013:
Regulates carcass disposal. Carcass storage is a Directly Associated Activity (DAA) in the permit.

Medium Combustion Plant Directive (MCPD):

For all proposed plant >1MW regulated as DAA on IA installations, BAT will apply and SEPA should complete Local Air Quality Management and Nature Conservation Habitat screening. If required, SEPA will impose monitoring of emissions within 4 months and then every 3 years with ELVs from Process Guidance Note 1/3 or the MCPD. There is no proposed plant >1MW on site at the time of permit issue.	
Officer	**CO**

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	
Officer:	CO

8 Details of the permit	
Do you propose placing any non standard conditions in the Permit?	**No**
Do you propose making changes to existing text, tables or diagrams within the permit?	**No**
Officer:	CO

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**
Officer:	CO

10 Peer Review	
Has the determination and draft permit been Peer Reviewed?	**Yes**
Comments made:	
Added info on • NH3 emission factors • Footbaths • Broken eggs • MCP requirements.	
Officer:	Peer reviewer

11 Final Determination
Issue of a Permit - Based on the information available at the time

Issue a Permit – 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/mobile plant,
- The applicant will ensure that the installation/mobile plant is operated so as to comply with the conditions of the Permit,
- The applicant is a fit and proper person (specified waste management activities only),
- Planning permission for the activity is in force (specified waste management activities only),
- 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.