JRL Craigie & Sons (Partnership)
Milton of Kilravock,
Cawdor, Nairn, IV12 5XZ

Permit Application

Permit Number PPC/A/5010886

Contents

1 Non-Technical Summary of Determination

Provide a non-technical summary of the process and determination

Regulation 11 and Schedule 1 of Section 6.9 Part A of the Pollution Prevention and Control (Scotland) Regulations 2012 (The Regulations) requires that installations rearing poultry intensively with more than 40,000 places, may only operate to the extent authorised by a permit.

J R L Craigie & Sons already operate two existing poultry houses, each housing 16,000 free range birds at Milton of Kilravock, Nairn, National Grid Reference (NGR) 283700, 850817. This application is to build a third shed, which will house an additional 32,000 free range birds. The location of the new shed has been chosen because of its proximity to the existing sheds. The new shed will be built on greenfield land. The proposed house will take the operation above the PPC threshold and therefore all sheds will need to be permitted as a new PPC installation.

The principal emissions from the unit will include ammonia and dust. The ammonia and dust impact of the installation has been evaluated using the SCAIL screening tool and as a result of pre-application discussions with SEPA, ammonia modelling has been carried out for the installation. Measures have been implemented on site to reduce ammonia generation such as feeding birds low crude protein diets. In addition, trees will be planted on each range to help screen the installation and help trap dust and reduce emissions.

The existing poultry houses have gable end extraction with roof inlets. The proposed house will have 12 high velocity efficient roof fans positioned at the centre of the building. These sheds have optimised ventilation systems and are well insulated. Shed 3 will have low energy LED lights installed and lights in Sheds 1 and 2 are being replaced with LEDs.

The unit has a 50kW solar array on Shed 1 which generates approximately 40,000kWh per year and is hoping to install an additional 50kW on Shed 3.

Mains water is used within the sheds and water meters will be regularly monitored. Nipple drinkers are used within the sheds. Each shed has feed bins and these are fitted with Collinson dust cyclones. Litter will be removed from the sheds three times a week, into a trailer, and sent to local anaerobic digestion plants for treatment. Balanced diets with low crude protein levels are used.

All substances with pollution potential to be stored or used on site have been included within the application, these are limited to livestock manure, wash water, diesel, feed, cleaning chemicals, pesticides and veterinary medicines. All will be stored in accordance with BAT and will not be released into the environment. Any incidents or accidents causing release of any substance to the environment will be reported immediately to SEPA.

As part of the determination the applicant was asked to review the SUDS proposals and significant changes have been made to the original proposal. The concrete apron beneath the gable fans and the lined gravel surface immediately adjacent to the pop holes will now drain to 2 swales. Roof water and the concrete area to the south of the proposed shed 3 will drain to a 50,000 litre tank before discharging to a swale. All swales have been designed in line with CREW guidance.

No analytical results of soil or groundwater were included in the application. A permit condition will therefore require that an updated Baseline Report must be submitted within 6 months of the date of the permit, including soil and ground water monitoring results. The report also needs to updated as it refers to no SUDS which has now changed. Note that some areas of the application are now incorrect e.g. table 5

Environmental Assessment refers to soakaways and gravel areas beneath gable fans, section 4.5.2 refers to soakaway

A set of management plans (including odour, noise, incidents, decommissioning) have been provided as part of the application.

Glossary of Terms

BAT - Best Available Techniques
BREF – Best Available Techniques Reference Document
BAT-C – Best Available Technique Conclusions
ELV – Emission Limit Value
CO – Coordinating Officer

2 External Consultation and SEPA's response

Is Public Consultation Required? (if no delete rows below)	**Yes**

Advertisement Check:	**Date**	**Compliance with advertising requirements**
Inverness Courier	**24/06/2025**	**Yes**
Edinburgh Gazette	**20/06/2025**	**Yes**

Officer Checking advert:	
No of responses received	None

Summary of responses and how they were taken into account during the determination:

N/A

Summary of responses withheld from the public register on request and how they were taken into account during the determination:

N/A

Is PPC Statutory Consultation Required? (if no delete rows below)	**Yes**

Food Standards Agency:	Response received: 26/06/2025. No objection.
Health Board:	
Local Authority	
Scottish Water	Response received 05/06/2025: Advised that there are no Scottish Water drinking water catchments or water abstraction sources, which are designated as Drinking Water Protected Areas under the Water Framework Directive, in the area that may be affected by the proposed activity. Request confirmation that Scottish Water Assets are out with the boundary of the development.

	Proposal will be required to comply with Sewers for Scotland and Water for Scotland 4th Editions 2018, including provision of appropriate clearance distances from Scottish Water assets.
Health and Safety Executive	
NatureScot	Response received: Wait for final response

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**

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.

Date SEPA notified applicant of draft determination	30/09/2025
Date draft determination placed on SEPA's Website	30/09/2025
Details of any other 'appropriate means' used to advertise the draft. Seek advice from the communication department	
Date public consultation on draft permit opened	30/09/2025
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:	CO

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 and supporting documentation.

Officer:	CO

4 Introduction and Background

4.1 Historical Background to the activity and variation

J R L Craigie & Sons are looking to expand their business in the Scottish Highlands. They already have 32000 free range layers on the Milton of Kilravock site in Nairn near Inverness and are proposing the erection of an additional shed to take the total number of places for free range laying hens to 64,000 and therefore require a PPC Part A Permit to operate. Previous land use is general agricultural.

The applicant is required to demonstrate that the poultry housing units are designed having regard to the following principles outlined in the BREF and the BAT Conclusions:

- 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.

The proposals for the new housing demonstrate that the chosen design addresses the above principles.

4.2 Description of activity

The activity proposed is rearing poultry intensively in an installation with more than 40,000 places as described in Part A of Section 6.9 (a) of Schedule 1 of the Regulations.

The operator has two existing sheds for 16,000 free range birds each and is proposing to build a third shed which will house 32,000 free range birds.

Directly Associated Activities include:
• Feed delivery & storage
• Generator & fuel storage
• Water storage
• Chemical storage
• Manure handling
• Dirty water storage
• Storage of fallen stock for disposal
• Management of lightly contaminated surface water
• Auxiliary power generation

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

Milton of Kilravock is within 10 kilometeres of 16 NatureScot designated sites as follows:

• Cawdor Wood (SAC - site code 8222, SSSI - site code 349)
• Kildrummie Kames (SSSI – site code 845)
• Loch Flemington (SPA – site code 8527)
• Inner Moray Firth (SPA – site code 8515)
• Whiteness Head (SSSI – site code 1633)
• Moray Firth (SPA – site code 10490, SAC - site code 8327)
• Ardersier Glacial Deposits (SSSI – 71)
• Carn nan Tri-tighearnan (SAC – site code 8220, SSSI – site code 323)
• Longman and Castle Stuart Bays (SSSI – site code 1675)
• Dalroy and Clava Landforms (SSSI – site code 491)
• Muckle Burn, Clunas (SSSI – site code 1206)
• Moray and Nairn Coast (SPA – site code 8550)
• Culbin Sands, Culbin Forest and Findhorn Bay (SSSI – site code 478)

The site is located in a rural area with outspread residences and other nearby agricultural operations. The nearest human health receptors are Rose and Riverside Cottages, approximately 150m to the south of the closest gable end of the existing poultry houses. Milton of Kilravock Farmhouse is approximately 150m to the east.

Officer:	CO

5 Key Environmental Issues

5.1 Summary of significant environmental impacts

SEPA aims to control environmental impacts arising from intensive agriculture activities through permit conditions and by the requirement for the Operator to comply with BAT as indicated in the SFIR.

Potential environmental impacts from intensive agriculture activities include:
- Ammonia emissions
- Manure and slurry storage
- Surface water drainage
- Protection of soil and groundwater
- Odour
- Noise
- Chemical use
- Fuel containment
- Energy efficiency
- Waste minimisation, storage and disposal
- Resource utilisation
- Environmental management systems

The potential impacts from the proposed activity and how they will be managed are addressed in the sections below.

5.2 Emissions to Air

Point Source emission to air:

The main point source of emissions to air from Milton of Kilravock will be from the housing ventilation system and the generator in the form of ammonia, dust and combustion gases.

Ammonia (BAT 23 & 31)

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 from the installation will be from the housing ventilation system. 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 factors.

SEPA uses the Simple Calculation of Atmospheric Impact Limits (SCAIL) model to assess 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 NH_3/bird place/yr (ammonia produced by an average sized bird) based in a housing emission factor of 0.073 kg NH_3/bird place/yr and ranging factor of 0.239 kg NH_3/bird place/yr for multi-tier free range layers factored 90% housing and 10% ranging split.

The SCAIL results showed that the process contribution (PC) from the installation will contribute more than 4% of the ammonia critical level for multiple designated sites; and the predicted environmental contribution (PEC) will be above 100% of the critical level, therefore SCAIL fails and SEPA are unable to rule out likely damage at SSSI's and likely significant effect at SCA/SPA's

SEPA requested that further assessment be carried out including detailed modelling to more accurately evaluate the potential for significant environmental effects and consider mitigation options available which attract a reduction in the standard ammonia emission factor. The applicant has proposed reducing dietary crude protein level in feed (an 8% reduction in NH3 emissions for every 1% reduction in dietary crude protein) to minimise nitrogen excretion and associated ammonia emissions.

The applicant has reduced the standard emission factor by 18.22% to account for an evidenced dietary crude protein content of 14.722% (rather than 17% which the emission factor is based on) to get 0.06 kg NH_3/bird place/yr, resulting in a final housing factor of 0.054 kg NH_3/bird place/yr.

In Combination Assessment

Any plans and projects which require consent/agreement from a competent authority and where SCAIL screening for the project alone is above 4% of the PC and 100% of the PEC, must be included in the appropriate assessment for that protected site. This includes, recently consented, in the planning/permitting system (including permitted development) or at pre-application stages where emission information is known, within the screening distance of the protected site (10km) and not in the APIS background.

SEPA were also in pre-app discussions with another proposal for a poultry farm at Meikle Geddes Farm located approximately 3km to the south west of Milton of Kilravock. SEPA therefore advised the applicant that emissions from this proposed source at Meikle Geddes should be modelled in combination with those from Milton of Kilravock Farm.

Where further assessment is required because screening failed, there are no thresholds identified for use in Scotland at this stage and the assessment of impacts is a matter of judgement.

Receptor	Name	CL NH3	% CL PC	Cle Ndep	% CLe PC
E1	Cawdor Wood SAC/SSSI	1	4.3	6	2.21
E2	Cawdor Wood SAC/SSSI	1	1.02	6	1.64
E3	Cawdor Wood SAC/SSSI	1	0.98	6	1.27
E4	Loch Flemington SPA and Kildrummie Kames SSSi	3	0.41	2	3.2
E5	Loch Flemington SPA and Kildrummie Kames SSSi	3	0.4	2	3.11
E6	Kildrummie Kames SSSi	3	0.95	2	7.4
E7	Carn nan Tri-tighearnan SAC and Carn nan Tri-tighearnan SSSI	1	0.1	5	0.11
E8	Carn nan Tri-tighearnan SAC and Carn nan Tri-tighearnan SSSI	1	0.14	5	0.15
E9	Inner Moray Firth Ramsar, Inner Moray Firth SPA and Longman and Castle Stuart Bays SSSI	3	0.11	10	0.18
E10	Inner Moray Firth Ramsar, Inner Moray Firth SPA and Longman and Castle Stuart Bays SSSI	3	0.07	10	0.11
E11	Inner Moray Firth Ramsar, Inner Moray Firth SPA and Whiteness Head SSSI	3	0.13	10	0.2
E12	Inner Moray Firth Ramsar, Inner Moray Firth SPA and Whiteness Head SSSI	3	0.06	10	0.09
E13	Inner Moray Firth Ramsar, Inner Moray Firth SPA and Whiteness Head SSSI	3	0.12	5	0.39
E14	Inner Moray Firth Ramsar, Inner Moray Firth SPA and Whiteness Head SSSI	3	0.1	5	0.31
E15	Moray and Nairn Coast Ramsar, Moray and Nairn Coast SPA and Culbin Sands, Culbin Forest and Findhorn Bay SSSI	3	0.56	5	1.77
E16	Moray and Nairn Coast Ramsar, Moray and Nairn Coast SPA and Culbin Sands, Culbin Forest and Findhorn Bay SSSI	3	0.55	5	1.72
E17	Culbin Forest and Findhorn Bay SSSI	1	1.7		

Advice was sought from NatureScot on the results. In their opinion, the designated sites will not be adversely affected by this proposal and the following justification was provided.

Cawdor Wood Special Area of Conservation

Cawdor Wood SAC is designated for western acidic oak woodland.

Based on the in-combination modelling data, any likely significant effects can be screened out for ammonia and acid deposition. The modelling for nitrogen deposition on the oak woodland has used a Critical Load of 6kg N/ha/yr but APIS recommends a minimum critical load of 10kg N/ha/yr. Using the APIS value the predicted in combination Process Contribution (PC) for nitrogen deposition is highest at receptor point E1 at 1.3% of the critical load and the Predicted Environmental Concentration (PEC) is 85% of the critical load and so, can be screened out as having no likely significant effect. Even if applying a Critical Load of 6kg N/ha/yr our advice is that there will be **no adverse effect on site integrity** of the SAC.

Cawdor Wood Site of Special Scientific Interest
well as the oak woodland interest considered above as part of the SAC, the SSSI is also designated for its lichen assemblage.

Based on the in-combination modelling data, any likely significant effects on the lichen assemblage can be screened out for ammonia and acid deposition. The in-combination PC for nitrogen deposition is predicted to be about 2% of the critical load and the PEC 143% of the critical load for the sensitive lichen assemblage. We advise that the additional nitrogen deposition is **unlikely to have a significant adverse effect** on the SSSI.

Kildrummie Kames Site of Special Scientific Interest
Kildrummie Kames SSSI lies approximately 2km north from Milton of Kilravock. It is designated for eutrophic loch, open water transition fen, juniper scrub and quaternary of Scotland.

Based on the in-combination modelling data, any likely significant effects can be screened out for ammonia and acid deposition.

The eutrophic loch (Loch Flemington) was identified as the most sensitive feature of the SSSI for nitrogen deposition. While there is no established critical load for eutrophic lochs, we are content that a conservative value of 2Kg N/ha/yr was applied to the eutrophic loch feature as per our pre-application advice.

The predicted in-combination PC for nitrogen deposition is just over 3% of the critical load and the PEC 221% of the critical load. We advise that this is **unlikely to have a significant adverse effect** on the eutrophic loch feature of the SSSI.

The receptor point E7 is located within the SSSI at Loch of the Clans. The main interest here is open water transition fen not eutrophic loch as considered in the modelling. The appropriate critical value for open water transition fen is 15Kg N/ha/yr, and so the predicted PC for nitrogen deposition would be 0.99% of critical load and PEC approximately 35% of critical load. We can therefore screen this out as having **no likely significant adverse effect** on the open water transition fen of the SSSI.

Our advice is that the proposal is **unlikely to have a significant adverse effect** on Kildrummie Kames SSSI.

Loch Flemington Special Protection Area
Loch Flemington SPA is approximately 2.7km northwest of the poultry farm at Milton of Kilravock and is designated for breeding Slavonian grebe. The eutrophic loch habitat of the SPA is considered above as part of Kildrummie Kames SSSI. Our advice is there will be **no adverse effect on site integrity** for the qualifying interest of Loch Flemington SPA either directly or indirectly.

Moray and Nairn Coast Special Protection Area
Culbin Sands, Culbin Forest and Findhorn Bay Site of Special Scientific Interest
Moray and Nairn Coast SPA and Culbin Sands, Culbin Forest and Findhorn Bay SSSI are approximately 9.3km north-east of the poultry farm at Milton of Kilravock. Moray and Nairn Coast SPA is designated for several non-breeding waterfowl species, the overall waterfowl assemblage and breeding Osprey. Culbin Sands, Culbin Forest and Findhorn Bay SSSI is designated for fungi assemblage, hydro morphological mire range, invertebrate assemblage, lichen assemblage, mesotrophic loch, saltmarsh, sand dunes, shingle, vascular plant assemblage and geomorphology of Scotland.

Based on the in-combination modelling data, any likely significant effects can be screened out for ammonia and acid deposition. The sand dunes were considered the most sensitive feature to nitrogen deposition. The in-combination PC for nitrogen deposition was 1.7% of the critical load and the PEC was 109% of the critical load. The additional nitrogen deposition is unlikely to result in an adverse effect on the sand dune vegetation, and we can conclude there will be **no adverse effect on site integrity** on the qualifying interests of the SPA either directly or indirectly; and that the proposal is **unlikely to have a significant adverse effect** on the interests of Culbin Sands, Culbin Forest and Findhorn Bay SSSI.

The applicant has also proposed to plant the free-range area with trees and a shelter belt will be planted at each gable end of the poultry houses. Once mature, the trees will act as a shelter belt for ammonia emissions affording greater protection of the surrounding environment. The Tree Calculator for Ammonia Mitigation www.farmtreestoair.ceh.ac.uk has been used to determine that a reduction in ammonia emissions of 23.5% can be achieved within 50 years of planting.

SEPA has therefore assessed the risk to designated sites as acceptable.

Dust (PM10) (BAT 11)

Dust from poultry houses mainly originates from feathers, skin particles and used litter and to a lesser extent from feed and bedding. PM10 dust particles (particulate matter 10 micrometres of less in diameter) are subject to statutory air quality standards. In Scotland, air quality objectives are set out in the Air Quality (Scotland) Regulations 2000 (as amended).

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.

The nearest human health receptors are Rose Cottage, Riverside Cottage and Milton of Kilravock Farmhouse approximately 150m to the south and east of the closest gable end of the poultry houses at Milton of Kilvarock. SEPA have undertaken PM10 screening using the SCAIL tool.

The process contributions (PC) for the annual average and 90th percentile daily average are below 10% of the critical level but the process contribution for the 98th percentile daily average exceeded the 10% threshold therefore detailed modelling was required. The detailed modelling undertaken by Redmore Environmental concluded there was no predicted exceedances in the relevant air quality standards due to the proposed development.

SEPA has therefore assessed the risk to human health as acceptable.

Diesel Generator

It is a requirement of the animal welfare regulations that the birds have adequate heating and ventilation at all times. There is a 50kW solar array on Shed 1 and the operator is hoping to install an additional 50kW on Shed 3 and the remaining energy requirement will be supplemented by mains electricity. However, in the event of mechanical failure or power cut, a back-up diesel generator will be available. SEPA are aware that diesel generators can give rise to dense fume, especially at start up, or if the generator is poorly maintained. SEPA would expect the operator to use BAT particularly with regard to servicing and maintenance to minimise visible emissions and particulates from the exhaust. The generator will be tested for a short period once per week.

The generator will have an internal bund and be located on a concrete plinth away from vehicle collision risk. A filling protocol will be in place and emergency absorbent material will be stored in the central services area in the event of an accidental spill.

Fugitive emissions to air:

There are a few potential fugitive emissions to air. These include the release of dust and ammonia during cleaning or opening of the housing units for fallen stock removal, and from the birds themselves. SEPA accepts that some fugitive releases are unavoidable, for example, unplanned releases due to an unforeseen incident: others such as poor cleaning 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.

Feed silos are fitted with cyclone particle containment and mitigation to contain dust emissions as per the requirement in BAT 11.

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. SEPA has a number of regulatory instruments it can use to gain compliance should the operator fail to comply.

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 250 metres should appropriate criteria for assessment be identified.

Odour:

SEPA has identified potential odour issues from intensive poultry farms. These include ammonia and odours from chlorinated cleaning materials or disinfectants to clean the housing units.

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.

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:

Site Drainage

Lightly Contaminated Drainage

Ventilation in the existing sheds 1 and 2 are gable end fans with roof inlets, the concrete apron beneath the gable fans and the lined gravel surface immediately adjacent to the pop holes will drain to 2 swales. The proposed shed, shed 3, will have high velocity roof fans and side inlets so the roof water and the concrete area to the south of the shed will drain to a 50,000-litre tank before discharging to a swale. All swales have been designed in line with CREW guidance.

The swales must be constructed and maintained to prevent erosion, manage sediment, and ensure effective treatment, reducing diffuse pollution and complying with SEPA requirements.

SEPA are aware that local planning authorities have recently been requiring a greater rainfall allowance in the design of SUDS. Highland Council have made no objection to this PPC application which is based on 15mm rainfall.

It is the applicants responsibility to ensure that what has been required by the Local Planning Authority and will be authorised by the PPC permit matches what is built on the ground. A condition will be added to the PPC permit requiring the submission of an as built drainage layout plan three months after the site has been brought into operation.

Foul Drainage

There will be no discharges to sewer. Domestic wastewater from welfare amenities must be authorised under The Water Environment (Controlled Activities) (Scotland) Regulations.

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 have been designed in line with CREW guidance and are sufficiently sized and located. If maintained properly, they will provide sufficient treatment of lightly contaminated run off and therefore this is not considered to be a point source discharge to groundwater.

Wash water generated through house washing at the end of each cycle will be collected in three sealed below ground tanks. Emptying of the wash water tank will be by vacuum tanker in which it is removed from site and spread on land out with the permitted installation as organic fertiliser under GBR18

Wheel Spraying

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.

Fugitive Emissions to Water:

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, and lack of care during cleaning of the housing units, all of which can lead to contamination of surface waters.

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 to provide training to relevant staff in environmental issues, exercising a high degree of environmental management, and continual maintenance of the activities they undertake.

5.4 Noise

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.

The Permit and SFIR recognise that noise can give rise to complaints. The operator is required to

undertake noise assessments and produce a Noise Management Plan (BAT 1) to prevent or minimise the impact on the local environment.

The predominant source of noise from poultry housing 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 unlikely to cause issues as these activities will take place for such short durations as well as being infrequent.

A Noise Management Plan has been submitted with the application and will be implemented on site and reviewed regularly. The permit will require that noise which has a significant impact on the environment, people or property must not be emitted beyond the site boundary.

5.5 Resource Utilisation

Water use

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.

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, and to report consumption in the resource efficiency report.

The greatest volume of water consumed is drinking water for the birds. Fresh mains 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) thereby reducing wastage and ensuring dry litter.

Water is also used for cleaning the poultry units at the end of the cycle. The housing units are washed down and disinfected before the introduction of the next flock.

Energy use and generation

The operator expects each shed to consume 60,000kWh per year, total consumption expected to be 180,000kWh per year. The main energy source will be mains electricity, but the installation has a 50kW solar array on existing shed 1 which generates approximately 40,000kWh per year and is hoping to install an additional 50kW on proposed shed 3.

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

Raw Materials Selection and Use

All applicants applying for PPC Part A permits are required to examine their Raw Materials usage and seek ways to reduce their impact on the environment. The standard permit condition requiring the formal assessment of resource utilisation on site will require the operator to identify where any efficiencies can be made and demonstrate continuing improvement.

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. Once onsite chemicals will be kept in the chemical storage area located in the central services building. The applicant has designed a bund within which the chemicals will be stored. The bund will have a dedicated mixing / diluting area and an internal sump. Procedures are in place to absorb any spillage and ensure appropriate disposal.

Veterinary Medicines:

Veterinary medicines are not held on site and will only be brought onto the site and used as required. Procedures are in place to absorb any spillage and ensure appropriate disposal.

Fuel Oil:

Agricultural fuel oil is stored within the bunded generator itself and there is no separate storage on site. The generator will be sited on a concrete plinth away from vehicle collision risk. The fuel storage is compliant with The Water Environment (Miscellaneous) (Scotland) Regulations 2017.

Water:

Water is sourced from the mains network and stored in overhead tanks in the Central Services Area. Water is used to supply drinking water to the birds and when washing down the housing units at depletion, water consumption is monitored.

Feed (BAT 3 & 4):

Feed will be supplied to the site, pre-mixed, into 6 fully enclosed silos each fitted with cyclone particle containment and mitigation and protected from vehicle collision. 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 and to deter pests. Rations are formulated by poultry nutritionists. Feed specifications are 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. SEPA is satisfied that this meets the requirements of SFIR and BAT.

Litter:

Wood shavings will be used as bedding litter at the beginning of each flock cycle and topped up as required. Litter is brought onsite as required and no additional litter is stored onsite.

5.6 Waste Management and Handling

Waste Minimisation

Standard permit conditions require the operator to minimise waste and where possible develop and implement recycling or recovery strategies. Records are required to 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.

It is not anticipated that there will be much waste generated by the site. Packaging such as plastic, paper and cardboard will be collected and stored on the concreted waste storage area outside the front of the poultry houses and sent for recycling as appropriate. General farm waste will also be stored in the waste storage area and uplifted by an appropriately licensed contractor.

Waste Handling

Spent disinfectant will be disposed of into the underground washwater 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 GBR 18.

Mortalities will be removed daily to a secure, vermin proof freezer in the within a locked shed. Final removal will be by registered contractors under the fallen stock scheme. All disposal of carcasses will be undertaken in accordance with the Animal By-Products (Enforcement)(Scotland) Regulations 2013.

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.

Waste Recovery or Disposal

As above.

5.7 Management of the site

Environmental Management System

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

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
- Noise Management Plan
- Odour 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 SFIRs requiring an appropriate person and deputy, a management system, competent staff, and record keeping.

Accidents and their Consequences

The PPC Regulations 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 does not happen again.

In general, all accidents or incidents likely to cause pollution and all complaints to the site regarding nuisance emissions are required by Schedule 7 of 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

In order to ensure that the site can be returned to its pre-PPC Permit state, SEPA have required the applicant detail any pre-application problems prior to permitting so that a site surrender report can be compared with the Site Condition and Baseline Reports. 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 5.9 below for more information). The operator has agreed to meet Section 2.15 of the SFIR for Decommissioning.

5.8 Site Condition report

A Site Condition Report was submitted with the application.

From 1980-2012, there was a pig unit at the location of Shed 1. This was a straw-based system and therefore had no slurry storage. The pig shed was demolished and the new poultry shed (Shed 1) was built in 2014. In 2017, Shed 2 was built on a greenfield site and there should be no historic contamination present. Shed 3 will be built on a greenfield site and there should be no historic contamination present. Diffuse pollution, especially nutrient enrichment, is possible as a result of agricultural practices.

No analytical results of soil or groundwater were included in the Report. There is no borehole on site. Whilst sampling upstream and downstream of the River Nairn is unlikely to indicate significant changes which could accurately be attributed to the installation, it would be pertinent to have these results to set the baseline. This will be required by permit condition that an updated Baseline Report must be submitted within 6 months of the date of the permit. The report also needs to be updated, as it refers to no swales proposed which has now changed. Note that areas of the application are now incorrect e.g. table 5 Environmental Assessment refers to soakaways and gravel areas beneath gable fans.

Routine soil and groundwater monitoring will be set at 5 years for groundwater and 10 for soil. Should SEPA have any concerns about impact on soil or groundwater from the installation at routine compliance inspections, the operator may be required to install a borehole to allow direct sampling.

5.9 Monitoring

Air

SEPA places a lot of emphasis on self-monitoring and record-keeping as keys to the successful running of a PPC installation. The operator is required within the permit to undertake odour and noise assessments. General monitoring of the site is also covered in the Permit 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. 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.

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

Soil and Groundwater

Routine soil and groundwater monitoring will be set at 5 years for groundwater and 10 for soil. Should SEPA have any concerns about impact on soil or groundwater from the installation at routine compliance inspections, the operator may be required to install a borehole to allow direct sampling.

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 agriculture operation in its Standard Farming Rules (SFIRs). SFIRs are based on the BAT Reference Document (BREF) for Intensive Agriculture Installations published by the European IPPC Bureau in 2017. The SFIRs have been used throughout this permit application to benchmark faming activities. The application indicates that the installation will be operated in accordance with Best Available Techniques (BAT).

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**
Refer to Section 5.2 above.	
Screening distance(s) used	10 Kilometres as per the SEPA Nature Conservation Procedure Guidance (NCP-P-01)
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 installation boundary. These will need to comply with GBR 18. See Section 5.4.

Foul drainage systems such as a septic tank to soakaway will be regulated separately under CAR and this will not form part of the permitted installation.

The swale systems to treat surface water drainage has potential to impact groundwater and therefore SuDS design must be in accordance with the CREW Rural SuDS Guide. See Section 5.3.

The Water Environment (Miscellaneous) (Scotland) Regulations 2017:
The requirements for the generator oil storage under these Regulations are met. See Section 5.2 for consideration of oil storage as BAT. 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 is a Directly Associated Activity (DAA) in the permit. See Section 5.7.

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, not a COMAH site.	
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, not a COMAH site.	
Officer:	CO

8 Details of the permit

Do you propose placing any non standard conditions in the Permit?	**Yes**
Do you propose making changes to existing text, tables or diagrams within the permit?	**Yes**

Outline the changes required and provide justification below:

Proposed Condition Number:	**Proposed Change:**	**Justification:**
3.3.3	The average dietary crude protein content of the feed over the entire cycle must not exceed 14.7%	In the detailed ammonia modelling, the applicant reduced the standard emission factor by

		18.22% to account for an evidenced dietary crude protein content of 14.7% (rather than 17% which the emission factor is based on), resulting in a final housing emission factor of 0.054 kg NH_3/bird place/yr. See section 5.2.
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:	
Several insertions regarding to detailed modelling and changes to SUDS proposals.	
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.