Aberdeen & Northern Eggs Limited
West Cockmuir

Permit Variation VAR02

PPC/A/1016719

Contents

1 Non-Technical Summary of Determination

Provide a non-technical summary of the process and determination

Aberdeen & Northern Eggs Limited are seeking a variation to permit PPC/A/1016719 to convert operations at West Cockmuir Poultry Farm, Strichen, Fraserburgh, AB43 6RQ from pullet and caged laying to free range and barn laying hens. The land and range associated with the West Cockmuir site is owned and operated by Aberdeen & Northern Eggs Limited, the Responsible Person.

The permit variation is a retrospective application. Changes have taken place on site since the last variation to the permit in 2015 and the permit has not been varied to reflect the changes. Therefore, this application is to correct the permit to reflect actual site operations.

The permit variation application is made under Part A of Section 6.9 (a) of Schedule 1 of the Pollution Prevention and Control (Scotland) Regulations 2012.

The site is located at Ordnance Survey national gird reference NJ 98746 55733. The area is a Nitrate Vulnerable Zone (NVZ) and a Drinking Water Protected Area (DWPA).

The proposed bird capacity following conversion of all poultry houses will be 336,000 places (225,000 places for free range layers and 111,000 places for barn layers). The site is currently permitted for 418,000 places for pullets and caged layers.

The West Cockmuir complex consists of four farms; Auchtygills, Hillside, Hillfoot and Cockmuir.

In addition to converting the production type across the site, since 2017 three new poultry houses have been added to the complex (Cockmuir Units 2 and 3, and Hillside Unit 2), and two houses have been decommissioned (Auchtygills 2 and Hillfoot 3). A final house (Cockmuir 6 & 7) is to be converted in 2025/2026. During the determination period the applicant requested to include an additional 4,000 free range laying birds at Cockmuir 1 as part of this application. SEPA have accepted this change and the additional birds are included in the proposed bird capacity stated above. It is expected that the additional birds will be housed from April / May 2026.

The location of the new poultry houses at Cockmuir were chosen because of the proximity to the main site, close to the egg packing centre, keeping transport costs low. The new houses were built on a greenfield site, close to an established woodland. Similarly, the location for the new poultry house at Hillside was chosen due to the existing infrastructure.

The new poultry houses are designed to minimise ammonia emissions. They are well insulated and use low energy lighting. All walls and roofs are insulated to retain heat and minimise condensation. The concrete floors are protected from water ingress by an impermeable damp-course membrane. Temperature and humidity are monitored continuously by sensors located within each individual housing unit. The climatic conditions are recorded and adjusted accordingly to achieve optimal conditions for flock welfare and to maintain low moisture content in the litter. Litter will be monitored to ensure that it is friable and loose.

Gable end fans have been installed at the two new poultry houses at Cockmuir (2 and 3). Cockmuir houses 4 and 5 have been upgraded with high velocity fans (on the gable side of the shed). Cockmuir 6 and 7 will have high velocity roof fans when converted. High velocity roof fans have been installed at the new poultry house at Hillside. The ventilation systems at all other poultry houses across the complex are either gable end fans or high velocity roof fans.

The aviary production system used in both barn and free range houses comprises nest boxes and bird perches. Free range houses also have pop-holes in the base of the housing unit so that the birds may

roam. Hens will be introduced at 16 weeks of age and housed for approximately 55 – 65 weeks before the flock is depleted. Birds are housed on a littered floor of wood shavings which are topped up throughout the cycle if required. In the free range houses pop holes will be open for a minimum of 8 hours per day.

Manure collection is via manure belts that collect manure from underneath bird perches, nesting boxes and drinking and feeding stations. Manure is removed from the poultry houses weekly and transferred to the existing manure stores at Cockmuir and Hillfoot. Manure will be spread to land out with the installation boundary, except during the closed NVZ period.

Manure on the manure belts is dried prior to removal from the poultry houses via biomass heat exchange in Auchtygills 3, 4 and 5; and via forced ventilation onto the manure belts in Cockmuir 4 and 5. Once converted, Cockmuir 1 will also have manure belt drying via forced ventilation and Cockmuir 6 & 7 via biomass heat exchange.

At the end of each cycle, the poultry houses are destocked of birds and all litter and manure completely removed. The houses are then washed down and disinfected before the introduction of the next flock. Wash water is collected in sealed below ground tanks prior to being spread to land out with the installation boundary.

Storage and processing of feed will remain unchanged by this variation. Feed mixing is carried out at the main site (Cockmuir) and delivered by blower trailer to feed bins throughout the complex. Feed is distributed through the poultry houses by a chain conveyor. Feed composition is adjusted throughout the flock cycle to provide optimal nutrient uptake and minimise loss via manure.

Water is supplied to the site via wells and mains water supply. Two wells feed the Hillside and Cockmuir sites, with a backup mains water supply. Auchtygills also has a well and mains back up water supply. Hillfoot is supplied with mains water only. Nipple drinkers are used to water the birds. These reduce wastage of water and maintain dry litter.

Lightly contaminated roof and surface water drain to a series of soakaways and ponds across the complex.

Eggs are conveyed to a central services area at each site where they are packed for processing off site.

Bird mortalities are collected daily and stored in a secure container within each poultry shed for collection on a weekly basis by an appropriately licenced facility.

Chemicals used for cleaning and disinfection are stored in a bunded store at Cockmuir and taken to the other sites as required. Procedures are in place to absorb any spillage and ensure appropriate disposal.

There is a general waste storage area at Cockmuir. All waste materials from the other sites are gathered at the Cockmuir storage area for collection.

To ensure enhanced biosecurity, a wheel washing facility is provided at the main entrance to the site.

The site is powered by mains electricity with back-up generators in use in the event of a power failure. There is also 50kW of solar array.

The operator has planted a number of trees around the installation since its inception. The tree canopy aids in absorbing dust and ammonia emissions thereby reducing the impact on the surrounding environment.

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

produced on-site. All aspects of building design and operation will be supported by management systems that aim to minimise the impact of the permitted activities on emissions to air, water, and land.

A Site Report was submitted with the application, however this failed to include the new ranging areas that will be included in the site boundary. In addition, a baseline study was not undertaken, and no groundwater and soil samples were collected. This requirement is already an existing permit condition and therefore this variation to the permit will require soil and groundwater samples to be collected within three months of the permit variation. See Section 5.9 of this Decision Document for further information.

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. West Cockmuir lies within 10 kilometres of three designated sites (please see Section 4.5 of this Decision Document). SEPA has assessed the impact of ammonia emissions and nitrogen and acid deposition on the designated sites as acceptable (see Section 5.2 of this Decision Document).

The application submitted complies with both the requirements of PPC and the Standard Farming Installation Rules (SFIR).

Determination was therefore to issue the Permit PPC/A/1016719 VAR02 based on the application submitted.

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?			**Yes**
Advertisement Check:	**Date**	**Compliance with advertising requirements**	
Edinburgh Gazette	**19/07/2024**	**Yes**	
Aberdeen Press and Journal	**22/07/2024**	**Yes**	
Officer Checking advert: CO			
No of responses received	No responses received.		
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:	Consulted on 28/06/2024. No response received.		

Health Board:	Consulted on 28/06/2024. No response received.
Local Authority	Consulted Aberdeenshire Council on 28/06/2024. Response received on 08/07/2024. No objections raised.
Scottish Water	Consulted on 09/09/2024. Response received on 20/09/2024. Scottish Water requested plans are obtained from the Asset Plan Providers to confirm there are no Scottish Water assets in the area. Applicant advised on 08/10/2024. Applicant provided asset plans on 08/11/2024. No Scottish Water assets identified on the asset plans. 13/11/2024 Scottish Water advised that no assets have been identified.
Health and Safety Executive	N/A
NatureScot	Consulted on 28/06/2024. Response received on 16/08/2024. No objections raised.

Discretionary Consultation required?	**No**
Enhanced SEPA Consultation required?	**No**
"Off site" consultation required	**No**
Transboundary Consultation required?	**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	27/11/2024
Date draft determination placed on SEPA's Website	06/12/2024
Details of any other 'appropriate means' used to advertise the draft. Seek advice from the communication department	
Date public consultation on draft permit opened	06/12/2024
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 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

Aberdeen & Northern Eggs Limited are seeking a variation to permit PPC/A/1016719 to convert operations at West Cockmuir Poultry Farm, Strichen, Fraserburgh, AB43 6RQ from pullet and caged laying to free range and barn laying hens. The land and range associated with the West Cockmuir site is owned and operated by Aberdeen & Northern Eggs Limited, the Responsible Person.

The permit was first issued in December 2007 and was transferred to Aberdeen & Northern Eggs Limited in January 2012. The permit has been varied four times.

This permit variation is a retrospective application. Changes have taken place on site since the last variation to the permit in 2015 and the permit has not been varied to reflect the changes. Therefore, this application is to correct the permit to reflect actual site operations.

The site is located at Ordnance Survey national gird reference NJ 98746 55733. The area is a Nitrate Vulnerable Zone (NVZ) and a Drinking Water Protected Area (DWPA).

The proposed bird capacity following conversion of all poultry houses will be 336,000 places (225,000 places for free range layers and 111,000 places for barn layers). The site is currently permitted for 418,000 places for pullets and caged layers.

The West Cockmuir complex consists of four farms; Auchtygills, Hillside, Hillfoot and Cockmuir.

In addition to converting the production type across the site, since 2017 three new poultry houses have been added to the complex (Cockmuir Units 2 and 3, and Hillside Unit 2), and two houses have been decommissioned (Auchtygills 2 and Hillfoot 3). A final house (Cockmuir 6 & 7) is to be converted in 2025/2026. During the determination period the applicant requested to include an additional 4,000 free range laying birds at Cockmuir 1 as part of this application. SEPA have accepted this change and the additional birds are included in the proposed bird capacity stated above. It is expected that the additional birds will be housed from April / May 2026.

The applicant was required to demonstrate that the poultry housing units were 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.

Aberdeen & Northern Eggs Limited are rearing both free range and barn hens for egg production.

Directly Associated Activities include:
• Feed preparation, 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
• Wheel washing facility

4.3 Outline details of the Variation applied for

This permit variation is a retrospective application. Changes have taken place on site since the last variation to the permit in 2015 and the permit has not been varied to reflect the changes. Therefore, this application is to correct the permit to reflect actual site operations.

The proposed bird capacity following conversion of all poultry houses will be 336,000 places (225,000 places for free range layers and 111,000 places for barn layers). The site is currently permitted for 418,000 places for pullets and caged layers.

The West Cockmuir complex consists of four farms; Auchtygills, Hillside, Hillfoot and Cockmuir.

In addition to converting the production type across the site, since 2017 three new poultry houses have been added to the complex (Cockmuir Units 2 and 3, and Hillside Unit 2), and two houses have been decommissioned (Auchtygills 2 and Hillfoot 3). A final house (Cockmuir 6 & 7) is to be converted in 2025/2026. During the determination period the applicant requested to include an additional 4,000 free range laying birds at Cockmuir 1 as part of this application. SEPA have accepted this change and the additional birds are included in the proposed bird capacity stated above. It is expected that the additional birds will be housed from April / May 2026.

Other changes required to the permit include the drying of manure on manure belts via forced ventilation and heat exchange at Auchtygills 3, 4 and 5 and Cockmuir 1, 4 and 5; the addition of a wheel washing facility at Cockmuir and a change in the installation boundary to include the new poultry houses and ranging areas.

See Section 8 of this Decision Document for further details on the changes proposed to the permit.

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

West Cockmuir is within 10 kilometres of the following NatureScot designated sites.

SAC / SPA / Ramsar

Name	Distance (km)	Qualifying interest	Latest assessed condition	Negative Pressures
Loch of Strathbeg SPA / Ramsar	6.4	Goldeneye, non-breeding Greylag goose, non-breeding Pink-footed goose, non-breeding Sandwich tern, breeding Svalbard barnacle goose, non-breeding Teal, non-breeding Waterfowl assemblage, non-breeding Whooper swan, non-breeding	Condition not assessed Unfavourable no change 2009 Favourable maintained 2009 Unfavourable no change 2013 Unfavourable declining 2014 Favourable maintained 2009 Favourable declining 2014 Favourable maintained 2009	None None None Natural event None None None None
Turclossie Moss SAC	9.9	Active raised bog Degraded raised bogs still capable of natural regeneration	Unfavourable no change 2010 Unfavourable declining 2016	Invasive species (Birch, Gorse, Scots pine) Water management Invasive species (Birch, Gorse, Scots pine) Water management

SSSI

Name	Distance (km)	Designated feature	Latest assessed condition
Rora Moss	5.7	Raised bog	Unfavourable no change 2012
Loch of Strathbeg	6.4	Breeding bird assemblage Coastal geomorphology Eutrophic loch Fen meadow Open water transition fen Saltmarsh Sand dunes	Favourable maintained 2004 Favourable maintained 2010 Unfavourable no change 2009 Favourable recovered 2013 Unfavourable no change 2013 Favourable maintained 2011 Favourable maintained 2013
Philorth Valley	7.8	Earth Sciences (Geological)	Favourable maintained 2007
Turclossie Moss	9.9	Intermediate bog (raised)	Unfavourable no change 2010

Refer to Sections 5.2 and 6 for an assessment of the impact of the proposal on the identified designated sites.

Human Health Receptors

The site is located in a rural area with outspread residences and other nearby agricultural operations. In 2018, The Airshed undertook an Air Quality Impact Assessment (AQIA) to consider the potential impacts on human health from the installation. The following table of human health receptors within proximity of the installation has been taken from the AQIA.

Table 1.1 – Location of Sensitive Receptors (see Figure 1)

No.	Receptor name	X(m)	Y(m)
1	Auchtygills	397885	854301
2	Parkvale	397782	854059
3	Glenview	397635	854064
4	Springburn	398359	854310
5	Hillfoot	397431	856047
6	Dencalie	396701	855734
7	Mormond Farm	396847	856211
8	Mormondside	398058	855889
9	Sonas	397302	855487
10	Hillside	398368	856255
11	West Whiteside	398483	856348
12	Mormondside Cottage	398466	855945
13	Mormondside Station	398561	855968
14	West Cockmuir	398761	855687
15	Sunnybank	398792	855676
16	East Cockmuir	399194	856079
17	Peedie Hoose	398642	855577
18	Loanend	398472	855296
19	North Redbog	399161	855278
20	Kylexie House	399083	855066

Refer to Section 5.2 for an assessment of the impact of the proposal on human health receptors.

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 emission to air from West Cockmuir will be from the housing units, ventilation systems and the generators in the form of ammonia, dust and fuel fumes.

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 and ventilation. 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 West Cockmuir 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. West Cockmuir lies within 10 kilometres of four designated sites, please see Section 4.5 of this Decision Document.

SEPA uses the Simple Calculation of Atmospheric Impact Limits (SCAIL) model to access the impact of ammonia emissions and nitrogen and acid deposition on designated sites. In this instance it is not possible to use the SCAIL Agriculture screening tool as the site is too complex to enter into the screening tool. It was therefore not possible to rule out a likely significant effect / potential damage to the SACs / SSSIs and SPA as a consequence of ammonia emissions and nitrogen deposition from the proposed activity and therefore detailed assessment was required. Philorth Valley SSSI is designated for geological features and is therefore screened out.

An Air Quality Impact Assessment (AQIA) was undertaken by the Airshed in 2018 to assess the impact from two new poultry houses proposed at the time (Cockmuir Units 2 and 3). The AQIA concluded that the process contribution from the two new units was insignificant in terms of critical levels for ammonia and critical loads for nitrogen and acid deposition. Since the AQIA was undertaken further changes have taken place and a third poultry house has been added. The AQIA is therefore no longer relevant.

As the site is too complex to enter into the SCAIL screening tool, and the application is retrospective, to ensure that current site operations are reflected in the permit, SEPA have calculated the total annual mass ammonia emission in 2015 when the permit was last varied and compared it with the current and proposed mass ammonia emission. This process is described in more detail below.

When the permit was varied in 2015, the site was permitted for 418,000 places for pullets and caged layers. Based on these permitted numbers and standard emission factors (pullet emission factor of 0.06 kg NH_3 /bird place/year; caged layers emission factor of 0.035 kg NH_3 /bird place/year), the total mass ammonia emissions per year were 22,847 kg.

While the proposal will result in a decrease in permitted bird numbers (336,000 places), the standard ammonia emission factor is greater for barn and free range hens (than pullets and caged layers). The poultry site is located within 10 kilometres of several designated sites and other PPC poultry installations. The background ammonia critical level is already breached at all the designated sites. Therefore, mitigation is required to reduce the ammonia emissions.

During pre-application discussions, the applicant was advised that SEPA would expect to see a decrease in the site annual mass ammonia emissions from 2015 levels should they wish to proceed with the proposed changes to the permit. Mitigation in the form of biomass heat exchange and drying of manure on the manure belts via forced ventilation have been introduced across the site since 2020. Once converted, Cockmuir 1 will also have manure belt drying via forced ventilation and Cockmuir 6 & 7 via biomass heat exchange.

SEPA have calculated the total mass ammonia emission for the proposal as 20,931 kg based on the following emission factors:

- Barn ammonia emission factor of 0.08 kg NH_3 /bird place/year

- Free range ammonia emission factor of 0.094 kg NH_3 /bird place/year
    - Indoor factor (aviary) = 0.08 x 90% = 0.072
    - Outdoor factor (ranging) = 0.22 x 10% = 0.022

Based on the ammonia emission factor for free range laying hens of 0.108 kg NH_3 /bird place/year (ammonia produced by an average sized bird). SEPA's default position is the estimated emission factor for time spent on the ranging area is 0.22 kg, with the indoor aviary emission factor being 0.08 kg. In addition is it estimated that the hens spend 10% of their time on the range, and 90% of their time indoors. The ammonia emission factor has been factored accordingly to take into account the proportion of emissions from both the range and indoors.

The following reductions have been applied to the ammonia emission factor:

- 60% reduction in poultry houses with manure belt drying.

Current advice, accepted by the UK regulatory agencies is to allow a 60% reduction to the multi-tier aviary housing emission factor where belt drying of manure is applied.

In addition, reduced protein content diets are in use and the following reductions can be applied to the ammonia emission factor:

- 4% reduction for a reduced crude protein content diet 72% of the time (Diet 6).
- 8% reduction for a reduced crude protein content diet 16% of the time (Diet 7).

Based on SC160021, Environment Agency, Ammonia and particulate emission factors from housed production of pigs and poultry (unpublished). Where pig or poultry diets contain less crude protein than those given in the report (Table 2.4), the ammonia EF should be reduced by 8% of the current default for every one percentage point reduction in dietary crude protein.

It should be noted that a mass ammonia emission of 20,931 kg is achieved without the reduced crude protein diets factored in. Therefore, the 2025 / 2026 mass ammonia emission is lower than the 2015 mass ammonia emission (22,847 kg) before the addition of the crude protein reduction.

Overall, a total reduction in the annual mass ammonia emissions of 1,916 kg is achieved (not including crude protein reductions). Refer to Excel document for calculations:
20241007_West Cockmuir_Bird Number_Reductions_Substantial Variation_FINAL

The applicant was asked to consider the potential ammonia mitigation that could be achieved from tree planting on the site. The UKCEH Tool 'Farm Trees to Air' has been used to estimate the potential for ammonia recapture by trees planted on the site. The tool indicates that trees currently capture 8% of ammonia emissions, with a maximum of approximately 13.6% ammonia recapture once trees reach maturity.

Two manure stores are in use at the installation, one at the Cockmuir site and the other at the Hillfoot site. The Cockmuir manure store was operational before 2015 and the Hillfoot manure store was operational from 2022. Based on the manure store emission factors for pullets on litter, and caged hens, free range hens and barn hens on manure belts, the kilograms of ammonia per tonne of manure have been calculated for 2015, and for the current proposal. In 2015 923,326 kg NH_3/tonne of manure was recorded, and the current proposal records 799,680 kg NH_3/tonne of manure. A total reduction of 123,646 kg NH_3/tonne of manure is achieved. Refer to Excel document for calculations: 20241007_West Cockmuir_Manure Stores_2015 vs 2024.

It is SEPA's view that the proposed variation to convert from 418,000 places for pullets and caged layers to 336,000 places for free range layers and barn layers, will result in a net reduction in ammonia emissions relative to the previously regulated activity.

The applicant has:

- Achieved an overall reduction in ammonia mass emission with a change in production and introduction of biomass heat exchange and manure belt drying, meeting BAT requirements.
- Reduced the crude protein content of the diets to meet BAT for nutritional management.
- Demonstrated a projected ammonia recapture of 8% by trees planted around the site, with a maximum of approximately 13.6% ammonia recapture once trees reach maturity.

NatureScot were consulted on the detailed assessment and noted that the proposed variation will result in a net reduction in ammonia emissions and deposition relative to the previously regulated activity. NatureScot further noted that the applicant has adopted measures to reduce ammonia emissions. NatureScot will continue to support ongoing discussions to look at strategic nitrogen emission reductions for Rora Moss SSSI, as was agreed during consultation on the Sandyknapps Poultry Farm PPC permit variation (PPC/A/1016791).

Following consultation with NatureScot the applicant proposed to increase the bird numbers at Cockmuir 1 by an additional 4,000 birds. Since NatureScot had responded to the consultation, SEPA recalculated the mass ammonia emission to include the 4,000 birds but noted that a 60% reduction had not been applied for heat exchange in the barn housing proposed at CM6 in the original calculations. The mass ammonia emission has since been corrected (as reflected above) and has improved from the net reduction provided to NatureScot and so there was no need to reconsult NatureScot.

Dust (PM_{10}) (BAT 11)

Dust from poultry houses mainly originates from feathers, skin particles and used litter and to a lesser extent from feed and bedding.

PM_{10} 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.

In 2019, The Airshed undertook an Air Quality Impact Assessment (AQIA) to consider the potential impacts on human health from the installation. Human health receptors identified within close proximity to each of the sites are listed in the table in Section 4.5 of this Decision Document.

AQIA Results

The AQIA noted that based on the existing approved PPC installation and the installation of Cockmuir 2 and Cockmuir 3, there would be an exceedance of the PM_{10} annual mean objective at the sensitive receptor called Hillside and the PM_{10} annual mean objective at the sensitive receptor called Peedie House would be close to exceedance. The AQIA suggested mitigation measures, which if implemented, demonstrated that the predicted reduction as a consequence of the proposed mitigation would be of substantial benefit at Hillside, and moderate benefit at Peedie Hoose.

The following mitigation measures were proposed by the AQIA:

- The erection of a plenum chamber at the south-west end of Cockmuir Units 6 & 7 to collect emissions, and the installation of new high velocity vents terminating 1 metre above the adjacent building where the efflux velocity is at least 13m/s at all times in active ducts.

- The conversion of the existing unit at Hillside with eight roof mounted fans terminating 1 metre above the roof ridge.
- The conversion of Hillfoot Unit 3 with four roof mounted fans terminating 1 metre above the roof ridge.
- The ventilation systems shall be computer controlled so that the efflux velocity of any fan operating is >10m/s under normal operating conditions where practicable.
- Arrangements for bird watering in the units shall be height-adjustable nipple systems designed to minimise water spillage, in accordance with good practice.
- Only approved accredited feed sources shall be used, and these shall exclude any odorous feed materials in accordance with good practice. Any spillage of feed materials around the storage bins shall be cleaned up immediately in accordance with good practice.
- Used manure and litter material shall be collected and loaded into trailer units located at the doors to the units, and shall be covered when full, in accordance with good practice. Filled trailers shall not be left standing uncovered and shall be removed off-site as soon as practicable. All litter shall be stored and disposed of in accordance with good practice.

SEPA accepted the AQIA on the basis that all of the mitigation measures outlined would be implemented to reduce the PM_{10} levels onsite to an acceptable level and reduce the impact at the receptors of concern.

Since the AQIA was completed, a number of changes have taken place on the site which were not considered in the AQIA. The applicant was therefore requested to review the AQIA in context of additional changes (and mitigation) at West Cockmuir. This review has been included with the variation application.

AQIA Review

The AQIA review considered the mitigation measures proposed by the AQIA and noted the following.

- Cockmuir 6 & 7: When these houses are converted in 2025/2026, they will be fitted with high velocity chimney fans, terminating 1 metre above the adjacent building with an exhaust air exit speed of 13.1m/s.
- Hillside 1: This poultry house has been fitted with high velocity roof fans.
- Hillfoot 3: This poultry house has been decommissioned.
- Ventilation systems: Normal operating conditions would run the buildings with a negative pressure of 10Pa and therefore the chimneys will still have an efflux velocity >10m/s.
- Bird watering: Nipple drinkers are utilised in sheds.
- Feed sources: Approved feed sources are used and good management techniques ensure that any feed spillage is promptly clean up.
- Manure and litter: Manure and litter are collected and stored in accordance with good practice.

In addition to the mitigation measures proposed in the AQIA, the AQIA review further noted the following.

- Cockmuir 4 & 5: When these poultry houses were converted from colony cages to barn production, they were fitted with exhaust chimneys that terminate at least 1m above adjacent buildings and an exhaust air exit speed of 13.1m/s.
- Hillside 2: When this poultry house was built it was fitted with exhaust chimneys that terminate at least 1m above adjacent buildings and an exhaust air exit speed of 13.1m/s.

The AQIA review further considered each of the farms separately.

Auchtygills

- The AQIA noted no PM_{10} objectives were exceeded at the nearest sensitive receptors.
- Conversion of the production type from pullets (144,000) to free range layers (78,000) reduced the PM_{10} mass emission by 45% *(based on the PM_{10} emission factor of 0.033 kg dust/animal place/year; 2,574 kg (free range); 4,752 kg (pullets)).*

Hillfoot

- The AQIA noted no PM_{10} objectives were exceeded at the nearest sensitive receptors.
- The AQIA proposed high velocity roof fans were installed on Hillfoot 3, however this poultry house was decommissioned.
- With the decommissioning of Hillfoot 3, PM_{10} emissions at this farm have reduced by 32% (*based on the PM_{10} emission factor of 0.033 kg dust/animal place/year for 32,000 free range layers in Hillfoot 1 and 2; and the PM10 emission factor of 0.017 kg dust/animal place/year for 29,160 caged layers in Hillfoot 3).*

Hillside

- The AQIA modelled Hillside 1 with 32,000 pullets.
- The AQIA indicated that the installation of high velocity roof fans at Hillside 1 would be of substantial benefit to the sensitive receptor (also called Hillside) where the PM_{10} annual mean objective was exceeded.
- Hillside 1 has been fitted with high velocity roof fans.
- Hillside 1 houses 24,000 free range layers, reducing the PM10 mass emission by 25% (*(based on the PM_{10} emission factor of 0.033 kg dust/animal place/year; 792 kg (free range); 1,056 kg (pullets)).*
- Since the AQIA, Hillfoot 2, housing 16,000 free range layers has been constructed.
- The AQIA review has run the SCAIL model for Hillside Farm talking into account Hillside 1 and Hillside 2 only, and the sensitive receptors Hillside and West Whiteside.
- The SCAIL results demonstrate that there is no exceedance of the PM_{10} annual mean objective or the PM_{10} 24-hour (98 percentile) objective at either sensitive receptor.

West Cockmuir

- The AQIA indicated that the PM10 annual mean objective would be close to exceedance at Peede Hoose (located south of the poultry houses).
- The AQIA proposed high velocity roof fans as mitigation to achieve a moderate benefit at Peedie Hoose.
- High velocity roof fans will be fitted at Cockmuir 6 &7 when they are converted in 2025/2026.
- Cockmuir 4 & 5 were fitted with high velocity roof fans.

The review concluded that a number of mitigation measures have been implemented on the site including the installation of high velocity roof fans, reduction in bird numbers and extensive tree planting (see below for more information on tree planting). It is expected that the changes implemented at the installation will mitigate any PM_{10} impact highlighted by the AQIA.

SEPA have accepted the AQIA review, however the review overlooked the following proposed mitigation in the AQIA:

- The erection of a plenum chamber at the south-west end of Cockmuir Units 6 & 7 to collect emissions. Cockmuir 6 & 7 are due to be converted in 2025/2026 and SEPA will require the erection of the plenum chamber. This will be included as a permit condition in the variation notice.
- The conversion of the existing unit at Hillside with eight roof mounted fans terminating 1 metre above the roof ridge. The applicant has confirmed that the roof fans terminate 1 metre about the roof ridge.

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

Trees

A number of trees and shelter belts have been planted around the installation and the applicant was asked to consider the potential ammonia mitigation that could be achieved from tree planting on the site. The UKCEH Tool 'Farm Trees to Air' has been used for this purpose and indicates that 8% of ammonia is captured now to a maximum of around 13.6% (once trees reach maturity). 14% of land area of the

farm is covered in trees with tree planting taking place most recently at Auchtygills, Hillside and West Cockmuir.

The trees will further assist in dissipating dust emissions. SEPA have no scientific literature to quantify these reductions.

Diesel Generators

It is a requirement of the animal welfare regulations that the birds have adequate heating and ventilation at all times. The site will be powered by mains grid electricity and supplemented by 50kW solar panels. In the event of a power failure, back-up diesel generators are used. There are 5 generators across the installation, two at the Cockmuir site, and one at each of the other sites. 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 generators will be tested for a short period once per week.

Biomass Boilers

Biomass boilers are used to provide heat exchange in a number of poultry houses to dry the manure. Biomass fuel in the form of wood chips is used. The wood chip stores are enclosed and not anticipated to cause any dust issues off site. The permit will not contain any emission limits for the operation of the boilers due to their size, but SEPA expect the operator to use BAT, particularly with regard to servicing and maintenance so that all releases during normal operations will be free from visible emissions.

Fugitive emissions to air (BAT 1 & 11)

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.

Additional measures in place to reduce emissions of dust include:

- Wood chips in use as litter
- Ad lib feeding is applied
- Soya oil is used in the feed as a binder
- Ventilation is operated on a minimum setting to provide little air movement

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 Intensive Agriculture. 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 (BAT 1, 12 & 13)

SEPA has identified potential odour issues from intensive poultry farms. These include ammonia and odours from chlorinated cleaning materials or disinfectants used 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.

No changes are proposed to the existing odour management practices. Odour is controlled with the following measures:

- Manure is removed frequently from the poultry houses via manure belts;
- Surfaces and litter are kept dry;
- During cold temperatures, ventilation systems run on a minimum setting to provide little air flow; and
- Established woodlands around the site screen the installation.
- Only approved accredited feed sources shall be used and these shall exclude any odorous feed materials in accordance with good practice.

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

Surface Water Drainage

Roof and yard drainage are directed to soakaways across the site. There are also a number of ponds on the installation, but it is not clear which drainage is directed to the ponds.

SEPA considers the CREW Rural SuDS Guide (Rural Sustainable Drainage Systems: A Practical Design and Build Guide for Scotland's Farmers and Landowners) (CREW) as BAT for intensive agriculture installations.

The last variation to the permit in 2022 required the operator to undertake a systematic assessment of site drainage within the permitted installation. The assessment is required to identify areas of clean and contaminated run off and undertake improvements needed to ensure that the system fulfils the requirements of CREW. The operator has yet to undertake this assessment. SEPA is working with the Operator to ensure the systematic assessment is completed.

SEPA will expect the operator to comply with CREW and upgrade the site drainage arrangements if required.

Wheel Wash

To ensure enhance biosecurity the installation has included a wheel wash and disinfection facility at the main entrance to the site (Cockmuir). Wheel washing is an automatic two-part process consisting of physical cleansing with water, followed by chemical disinfection.

Physical Cleansing

Vehicles enter the wheel wash and automatic sprayers wash the underside and side of the vehicle with water. Run off from the wheel wash is contained in a water tank and recirculated. There is no overflow. A small amount of flocculant is added to the water tank with every wash in order that sediment sinks to the bottom of the tank and only clean water is reused. The sediment is removed as required by tanker and applied to land with the wash water from cleaning the poultry houses.

Chemical Disinfection

Vehicles drive off the wheel wash to apply disinfectant at a separate concreted location. Application is automatic and the entire vehicle is covered with a fine mist. The area of application of disinfectant is at least 10 meters away from surface water drains.

Point Source Emissions to Groundwater

There shall be no direct point source emissions to groundwater as a consequence of this variation to the permit.

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, 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.

The installation has been operating under PPC for many years and is generally well run. There are no proposed changes to management practices.

5.4 Emissions to Land (BAT 7 & 20)

In the case of free-ranging hens, SGRPID considers that deposition on a range will be constant across the whole area. In order to ensure that an installation is BAT and that an operator is taking all appropriate preventative measures against pollution in the NVZ, the applicant is required to demonstrate that deposition on the ranging area is in accordance with the limit advised by SGRPID as 170 kg N/Ha under the Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008.

SEPA have calculated the required size of the various ranging areas across the site. It is noted from the table below that the majority of the range areas are undersized and therefore not compliant with the NVZ Regulations. The operator has been informed and the matter has been referred to SGRPID.

						NVZ Rules - Required Range Size		
Year	Site	Shed Number	Bird Numbers	Production Type	Actual Range Size Ha	1000 hens = 530kg N/year	20% (Ranging Factor)	170kg N/ha
2024	Auchtygills	AG3	23000	Free range layers				
2024	Auchtygills	AG4	23000	Free range layers	23.3	12,190	2,438	14.34
2024	Auchtygills	AG5	32000	Free range layers	16.3	16,960	3,392	19.95
2024	Hillside	HS1	24000	Free range layers	12	12,720	2,544	14.96
2024	Hillside	HS2	16000	Free range layers	8	8,480	1,696	9.98
2024	Hillfoot	HF1	16000	Free range layers	8	8,480	1,696	9.98
2024	Hillfoot	HF2	16000	Free range layers	8.2	8,480	1,696	9.98
2024	Cockmuir	CM1	16000	Free range layers	6	8,480	1,696	9.98
2024	Cockmuir	CM2	16000	Free range layers	8.1	8,480	1,696	9.98
2024	Cockmuir	CM3	16000	Free range layers	8	8,480	1,696	9.98
2025	Cockmuir	CM7	27000	Free range layers	16	14,310	2,862	16.84

The manure collected weekly from the manure belts is conveyed to the covered manure stores at Cockmuir and Hillfoot. Manure is spread to land as organic fertiliser out with the installation boundary, except during the closed NVZ period. No changes are proposed to existing manure handling practices. Manure is spread to land using low trajectory equipment.

Wash water is collected in below ground sealed tanks prior to being spread on land out with the installation boundary. The spreading to land of manure and wash water out with the installation boundary is covered by the Water Environment (Controlled Activities) (Scotland) Regulations 2011, General Binding Rule 18 (GBR 18).

5.5 Noise (BAT 9 & 10)

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 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. Routine maintenance of fans will also prevent noise and the noise management plan will address any issues that should arise and will be updated as stipulated in the permit.

The Permit and SFIR recognise that noise can give rise to complaints. The operator is required to undertake noise assessments and produce a Noise Management Plan to prevent or minimise the impact on the local environment.

The permit requires that emissions from the Permitted Installation are free from noise and vibration levels likely to cause pollution.

No changes are proposed to the existing noise management practices.

5.6 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 vehicles.

It is up to the operator to demonstrate the use of BAT to minimise water usage, but SEPA does directly regulate water use through permit conditions requiring the operator to minimise water consumption and explore options for minimisation, and to report consumption in the resource efficiency report.

The greatest volume of water consumed is drinking water for the birds. Water consumption by the birds is expected to increase with this variation to the permit. Water is supplied to the site via wells and mains water supply. Two wells feed the Hillside and Cockmuir sites, with a backup mains water supply. Auchtygills also has a well and mains back up water supply. Hillfoot is supplied with mains water only. Fresh water is delivered to the birds 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. Wash water consumption is expected to decrease with this permit variation as there will be fewer turnarounds with the change in rearing practices.

The operator currently reports water use and consumption to SEPA as per the requirements in the permit (Resource Utilisation reporting).

Water leakages are repaired as required.

Energy use and generation (BAT 8)

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 out with the control of the operator who has to maintain the welfare of the birds in extremes of weather.

A permit condition requires the formal systematic assessment of energy consumption on the site and the operator must identify where efficiencies can be made.

The site is powered by mains electricity and supplemented with 50kW of solar array (panels). Standby diesel generators supply back-up power in the event of a mains outage. Biomass heat exchange is used in a number of sheds to dry poultry manure.

Energy and fuel consumption is currently monitored and recorded.

The new poultry houses have optimised ventilation systems, are well insulated and use low energy lighting. High efficiency fans and motors are used across the site and LED lights have been installed.

Raw Materials Selection and Use

All applicants applying to vary a PPC Part A permit 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 requires 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 a bunded chemical storage area located at the Cockmuir site. Chemicals are transported from the Cockmuir site to the other sites as required. Procedures are in place to absorb any spillage and ensure appropriate disposal. Additional biocides will be required to service the new poultry houses. These include Virkon S (foot dips), Bioclean and Bioshield (used to clean poultry houses). Pesticides are used as required.

Veterinary Medicines
Medicines are not stored at the installation and are brought onto the site and used as required.

Fuel Oil
Agricultural fuel oil is stored within the bunded generators across the site. In addition, there is a bunded diesel tank at the Cockmuir site. The fuel storage is compliant with The Water Environment (Miscellaneous) (Scotland) Regulations 2017. No additional fuel storage or consumption is expected as a result of the proposed variation.

Water
Water is supplied to the site via wells and mains water supply. Water is used to supply drinking water to the birds and for washing down the housing units at depletion. Water consumption is monitored. Water consumption by the birds is expected to increase with this variation to the permit, however water use for washing down the housing units is expected to decrease.

Feed (BAT 3 & 4)
Storage and processing of feed will remain unchanged by this variation. Feed mixing is done at the main site (Cockmuir) and delivered by blower trailer to feed bins throughout the complex. Feed bins are fitted with cyclone particle containment. Feed is distributed through the poultry houses by a chain conveyor. No changes are proposed to nutritional management and the feeding regime will be in line with that already in place for the installation. Multiphase diets are provided with reduced crude protein levels to assist in the reduction of ammonia emissions. Feed consumption is monitored and recorded. SEPA is satisfied that this meets the requirements of SFIR and BAT.

Litter
Wood chips are used as bedding litter at the beginning of each flock cycle and topped up as required.

Biomass fuel
Wood chips are used to fuel the biomass boilers. The wood chip stores are enclosed.

5.7 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 by the permit.

Plastic, glass (medicine bottles), metal, clinical waste and general waste are stored in the waste storage area at Cockmuir. Wastes from the other sites are brought to Cockmuir for storage prior to uplift by an appropriately licensed contractor.

No change in current consumption or waste management practices is expected.

Waste Handling

Foot baths are located at various locations around the site. Spent disinfectant is disposed of into the underground wash water tanks.

Wash water and sediment from the wheel wash water tank is spread to land out with the installation in accordance with GBR18.

Mortalities are removed daily to a secure, storage container within each poultry house and collected weekly 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.

5.8 Management of the site

Environmental Management System (BAT 1 & 2)

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 installation has been operating under PPC for many years and is generally well run. The additional poultry houses will be operated in line with the requirements of SEPA's Standard Farming Installation Rules (SFIR). Management techniques will remain the same across the permitted operations and there are no proposed changes to management practices or existing maintenance schedules.

Accidents and their Consequences (BAT 1)

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.

No additional requirements or changes proposed to the installations Incident Prevention and Mitigation Plan.

Closure

In order to ensure that the site can be returned to its pre-PPC Permit state, SEPA require the applicant to 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).

5.9 Site Condition report

As per Regulation 48 of the PPC Regulations a Site Report and a Baseline Report is required to be submitted with the variation application.

A Site Report was submitted with the application. The application did not however include the additional free range areas within the permitted site boundary. As such, the Site Report does not take into consideration the condition of the additional land required to be added to the permit.

In addition, the operator has not collected groundwater and soil samples as required by the permit (by 31 December 2022) and as such there is no existing Baseline for the site.

The applicant has since updated the Site Report to include the additional land, and a groundwater and soil monitoring plan has been agreed with SEPA. SEPA will therefore require groundwater and soil samples to be collected, analysed and submitted within 3 months of this permit variation. This will be enforced at routine compliance inspections.

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

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 introduced 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.

The operator already submits data on all of the above to SEPA on an annual basis.

Water
N/A
Soil and Groundwater
Groundwater monitoring is required by the permit every 5 years, and soil monitoring is required every 10 years. No changes are proposed to the monitoring frequency. See Section 5.9 of this Decision Document for more information.
Waste
N/A
5.11 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 variation 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?		**Yes**
See Section 5.2.		
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**

Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008:
The applicant was not able to demonstrate that the size of the ranging areas is sufficient that deposition is in accordance with the limit of 170 kg N/hectare. This matter has been referred to SGRPID. See Section 5.4.

The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) and Nitrates Directive: 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 SUDS systems to treat surface water drainage have 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 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 the permit variation.

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?	**No**
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:
Paragraph 1.1.4.1	Update number of poultry houses and bird places.	Reflect site operations.
Paragraph 1.1.4.2	Update ventilation system.	Reflect site operations.
Paragraph 1.1.5.1	Include biomass fuel.	Update fuel and raw material storage to include biomass fuel.
Paragraph 1.1.5.4	Update to remove redundant storage and include washwater tanks, manure belts, two manure stores and litter.	Update handling of manures and slurries to include washwater tanks, manure belts, two manure stores and litter.
Paragraph 1.1.5.5	Update to include fallen stock facilities at all four sites.	Update storage and disposal of fallen stock to include fallen stock facilities at all four sites.
Paragraph 1.1.5.6	Update to include biomass boilers.	Update auxiliary power generation facilities to include biomass boilers.
1.2 Site Plan and Detailed Layout Plans	Revised site plan and detailed layout plans.	Include new poultry houses and ranging areas within the installation boundary and remove decommissioned poultry houses.
1.3 Location Plan	Revised location plan.	Include new poultry houses and ranging areas within the installation boundary and remove decommissioned poultry houses.
Condition 2.12.5	Update groundwater monitoring condition.	Update groundwater monitoring condition to require sampling to be undertaken within three months of the date of the variation.
Condition 2.12.6	Update soil monitoring condition.	Update soil monitoring condition to require sampling to be undertaken within three months of the date of the variation.
Table 2.3 Reporting and Notification Requirements	Update soil and groundwater monitoring reporting requirements.	Update soil and groundwater monitoring reporting requirements to require sampling to be undertaken within three months of the date of the variation.
Condition 3.2 Waste Handling & Storage; and Table 3.1	Waste Handling and Storage condition and Table 3.1 updated.	Waste Handling and Storage condition updated as per intensive agriculture permit template (IED-T-18) and waste types in Table 3.1 updated to reflect site operations.
Table 3.2 Individual Source Emissions to Air	Update air emission points.	Update air emission points table to include biomass boilers and remove redundant generators.
Table 3.3 Emissions to Water Environment/Sewer /Land	Update water emission points.	Update water emission points table to remove emission point W7 which is no longer relevant.

Condition 3.3.5	Remove W7 (water emission point).	Remove water emission point W7 which is no longer relevant.
Table 3.4 Emission Limits and Monitoring Requirements	Table updated to remove caged hens and pullets and include laying hens.	Table updated to remove caged hens and pullets and include laying hens.
3.8 Upgrade Conditions	3.8.1 The proposed mitigation measures outlined in The Airshed report, Version 5, dated 10 September 2019, 'Air Quality Impact Assessment for Poultry Units at Auchtygills, Hillfoot, Hillside and West Cockmuir Poultry Farm – by Strichen, Fraserburgh Aberdeenshire – including proposed Mitigation'; must be implemented and operated in accordance with manufacturers guidelines at all times.	The AQIA proposed the erection of a plenum chamber at the south-west end of Cockmuir Units 6 & 7 to collect emissions. Cockmuir 6 & 7 are due to be converted in 2025/2026 and SEPA will require the erection of the plenum chamber via this permit condition.
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**
Outline the changes required and provide justification below:	
N/A, standard ELV's apply.	
Officer:	CO

10 Peer Review	
Has the determination and draft permit been Peer Reviewed?	**Yes**
Comments made:	
Minor text change and typos. Addition of wood chip fuel for biomass boilers and explanation that the wood chip stores are enclosed and not anticipated to cause any dust issues off site.	
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,
- The applicant will ensure that the installation is operated so as to comply with the conditions of the Permit,
- That the operator is in a position to use all appropriate preventative measures against pollution, in particular through the application of best available techniques.
- That no significant pollution should be caused.