

1 External Consultation and SEPA's response		
Is Public Consultation Required?		Yes
Advertisement Check:	Date	Compliance with advertising requirements
The Edinburgh Gazette	05/01/2024	Yes
The Buchan Observer	09/01/2024	Yes
Officer Checking advert: CO		
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?		Yes
Food Standards Agency:	Consulted on 09/01/2024. Response received 16/01/2024: considered it unlikely that there will be any unacceptable effects on the human food chain from this installation.	
Health Board:	Consulted on 09/01/2024. No response received.	
Local Authority	Consulted on 09/01/2024. Response received 06/03/2024: No comments to make.	
Scottish Water	Consulted on 09/01/2024. Response received 05/02/2024: Advised that the proposed activity falls within a drinking water catchment where a Scottish Water abstraction is located. Scottish Water abstractions are designated as Drinking Water Protected Areas. River Deveron supplies Turriff Water Treatment Works and it is essential that water quality and water quantity in the area are protected. Scottish Water have produced a list of precautions for a range of activities and advise that site specific risks and mitigation measures will require to be assessed and implemented. In addition, it should be confirmed by obtaining plans from the Asset Plan Providers that there are no Scottish Water assets in the area. 19/03/2024: Supplied Scottish Water with additional information from the applicant in response to their consultation. 10/04/2024: Scottish Water advised that they have no further comments to make.	
Health and Safety Executive	N/A	
NatureScot	Consulted on 09/01/2024. Response received 09/01/2024: No comments to make.	
Discretionary Consultation required?		No
Enhanced SEPA Consultation required?		No
"Off site" consultation required?		No

Transboundary Consultation required?	No
Is Public Participation Consultation Required?	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	
Date draft determination placed on SEPA's Website	
Details of any other 'appropriate means' used to advertise the draft. Seek advice from the communication department	
Date public consultation on draft permit opened	
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

2 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

3 Introduction and Background	
3.1 Historical Background to the activity	

The application by Muirden Limited is for a new free range egg production farm located on agricultural land at Ardfour, approximately seven kilometres southwest of Turriff, Aberdeenshire. The farm will be called Beattock Free Range Egg Unit (referred to as Beattock in this Decision Document). The land and the range associated with the Beattock site is owned by the parent company Duncan Eggs Ltd, and the site will be operated by Muirden 1 Ltd, the Authorised Person.

The site is located at Ordnance Survey national grid reference NJ 6546 4752 and is bordered on the north, east and west by the River Deveron. The area is a Nitrate Vulnerable Zone (NVZ) and a Drinking Water Protected Area (DWPA).

Beattock will house a total of 64,000 free range laying hens in two new poultry housing units on a multi-tier aviary system.

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.

3.2 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.

Muirden 1 Limited proposes two poultry housing units with a capacity for 64,000 places for free range hens for egg production.

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

3.3 Outline details of the Variation applied for

N/A. New permit application.

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

None.

3.5 Identification of important and sensitive receptors

Beattock is within 10 kilometres of one NatureScot designated site as follows:

Name	Distance from Beattock	Designation
Moss of Crombie	8.5 Km	SSSI

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

The site is located in a rural area with outspread residences and other nearby agricultural operations. The nearest human health receptor is the farmhouse at Ardfour, approximately 164m to the east of the closest gable end of the new poultry houses at Beattock. Refer to Section 5.2 for an assessment of the impact of the proposal on human health receptors.

Officer: CO

4 Key Environmental Issues

4.1 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.

4.2 Emissions to Air

Point Source emission to air:

The main point source of emissions to air from Beattock will be from the housing units, ventilation system and the generator in the form of ammonia, dust and fuel fumes.

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

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 Beattock 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. Beattock lies within 10 kilometres of one designated site, Moss of Crombie SSSI (please see Section 4.5 of this Decision Document).

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 0.101 kg NH₃/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 it is estimated that the hens spend 20% of their time on the range, and 80% of their time indoors. The applicant has put forward that at Beattock hens will spend approximately 15% of their time on the range and 85% of their time indoors. SEPA has accepted this position and therefore factored the ammonia emission factor accordingly to take into account the proportion of emissions from both the range and indoors. The SCAIL run further included the estimated emissions from the two proposed manure stores. (See additional document for calculation of SCAIL inputs: SEPA SCAIL Inputs).

The SCAIL results (see additional document for SCAIL results: SEPA SCAIL Output_NH3), showed that the process contribution (PC) from the proposed installation will not contribute more than 4% of the ammonia critical level for the designated site; and the predicted environmental contribution (PEC) remains below 100% of the critical level. The process contribution together with the most recent APIS background for ammonia also remains below the ammonia critical level. There are no habitat or species sensitive to nitrogen or acid deposition at Moss of Crombie SSSI, and therefore no impact from these parameters. As there is no predicted breach of the critical load or level at the designated site, it is concluded that a significant effect is unlikely, and no further assessment is required.

The applicant has proposed to plant the free-range area with trees and shelter belts 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.

It is noted that there are 6 PPC poultry sites and one below threshold poultry site within 10 kilometres of Beattock, all owned and operated by the parent company, Duncan Eggs Limited. One of these sites is a caged pullet site with 80,000 bird places, and it is proposed that the site will be decommissioned. All of the existing PPC sites are accounted for both in SCAIL and APIS background, and therefore the proposal remains satisfactory.

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 or 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 receptor is the farmhouse at Ardfour, approximately 164m to the east of the closest gable end of the new poultry houses at Beattock. In the absence of particulate matter screening, SEPA have undertaken this using the SCAIL tool.

The process contributions (PC) for the annual average and 90th percentile daily average are below 10% of the critical level and therefore pass SCAIL screening (see additional documents for SCAIL results: SEPA SCAIL Output_PM10 Annual Average and 90th Percentile_Daily Average).

The process contribution for the 98th percentile daily average fails SCAIL screening, however the predicted environmental contribution (PEC) is below 100% of the critical level and is therefore acceptable (see additional document for SCAIL results: SEPA SCAIL Output_PM10 98th Percentile_Daily Average).

To further mitigate emissions, the applicant has proposed to plant a tree buffer zone to the east of the gable end fans nearest to the farmhouse. The trees will assist in dissipating dust emissions.

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

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 will be 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.

Diesel Generator

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 solar panels and supplemented by mains grid electricity. However, in the event of a power failure, a back-up diesel generator will be used. 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.

The application suggests that in the event of a catastrophic failure of the generator, fuel could find its way to the swales where it could be retained for emergency action. This would be considered an unauthorised emission, SEPA do not support this view and it must not be allowed to happen under any circumstance. SEPA expect appropriate management procedures to be in place to prevent spillages reaching surface water drainage features.

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 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.

4.3 Emissions to Water

Point Source Emissions to Surface Water and Sewer:

Foul Drainage

There are no public sewers within the vicinity of Beattock Free Range Egg Unit and therefore there will be no discharges to the sewer. A septic tank will be installed to collect all domestic wastewater from the welfare amenities and discharge to a soakaway in front of the poultry houses. This is to be authorised under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended). The foul effluent system is not considered part of the Permitted Installation.

Surface Water Drainage

The application proposed a Sustainable Drainage System (Rural SuDS) designed to comply with the CREW Rural SuDS Guide (Rural Sustainable Drainage Systems: A Practical Design and Build Guide for Scotland's Farmers and Landowners) (CREW), considered BAT for intensive agriculture installations.

Aberdeenshire Council did not comment on the SuDS proposal during statutory consultation with SEPA. However, during the planning application which coincided with the PPC permit determination period, the Council objected to the SuDS proposal on the basis of flood risk. The Council required the CIRIA SuDS Manual C753 and BRE Digest 365 guidelines to be adopted in order to accommodate a 1:200-year storm event + Climate Change Peak Rainfall Intensity Allowance (PRIA) of +37% (0.066m) for the North-East Region of Scotland.

In planning decision notice APP_2023_2024-FAC_-_21.05.2024_-_REPORT-11019050, Aberdeenshire Council granted full planning permission subject to the following condition: *The building hereby approved shall not be brought into use unless the proposed foul and surface water drainage systems have been provided in accordance with the approved plans and the Drainage Recommendation Report by SA McGregor dated 06 May 2024.* By complying with the more onerous requirements of CIRIA, the CREW requirements will be met. SEPA have therefore accepted the revised proposal and the surface water drainage arrangements must be as per the report approved by the Council: Drainage Recommendation Report by S.A. M^cGregor, 6 May 2024.

It is up to the applicant to ensure that what has been required by the Council 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 and site plan three months after the site has been brought into operation.

The Drainage Recommendation Report complies with the requirements of CREW. Surface water run-off from the housing unit roofs, scratch areas and low-contamination yards will be piped to three swales. The location of the swales is shown on the site plan.

There will be no outlet drains on the swales. Scratch areas will be underlined with an impermeable membrane to ensure that all scratch area drainage is captured and directed to the swales. The swales will be fenced off to restrict poultry access.

A grassed, blind ended ditch will be laid alongside the access road at a flat gradient to capture any road runoff. Any field tiles located in the vicinity of the access road will be infilled.

Wheel Wash

The applicant has proposed and designed a wheel washing facility for service vehicles accessing the poultry houses to ensure enhanced biosecurity. These include egg collection vehicles, feed deliveries and tractors and trailers collecting manure. It is anticipated that approximately seven vehicles per week will make use of the wheel washing facility. All other vehicles will be required to park in a designated parking area at the site entrance.

Wheel washing will be a two-part process consisting of: (1) physical cleansing and (2) chemical disinfection.

Physical Cleansing

Vehicles will enter the concrete wash bay. The sides of the wash bay will have kerbs, and the ends will have sleeping policeman to contain all runoff within the bay. Handheld power washers will be used to clean tyres and wheel arches with water only (no detergent is added). This process will release sediment and oils which will be directed to a suitably sized settlement tank. GPP 3 (Guidance for Pollution Prevention: Use and design of oil separators in surface water drainage systems) has been used to design the settlement tank. The settlement tank will be fitted with a commercial oil interceptor for collection of oils. All sediment will be collected and removed to a suitably licensed site for disposal. The applicant has indicated that sediment will be removed approximately four times per year, however weekly inspections will be undertaken to determine the frequency required.

The settlement tank and oil interceptor will overflow to a recycling tank where the water will be pumped to the power washers to be used again for cleansing. Water will be supplied by a metered borehole if required.

The recycling tank will have an overflow to a blind ended swale to accommodate flow during periods of heavy rainfall. The CREW guidelines have been used to design the swale with additional precautions provided to allow longer retention and enhanced treatment.

Chemical Disinfection

After physical cleansing, vehicles will move to a second concrete bay for spray disinfection by a hand-held knapsack sprayer. The product used for disinfection is Omnicide (diluted) and the knapsack sprayer will be prepared within the chemical bund in the central services area. The nature of the application means that little to no disinfection will drain away as the volume of the material sprayed onto the tyres and wheel arches is small (no more than 3 litres). The disinfection area will be located more than 10 meters away from drains and at least 30 metres away from the swale receiving the overflow from the recycling tank in the physical cleansing process of the wheel wash.

The application includes a detailed diagram of the wheel washing facility: BU Drg. 5 Diag. of drainage arrangements Beattock FRE Farm 8th revision 24-4-24.

Point Source Emissions to Groundwater:

There shall be no direct point source emissions to groundwater as a consequence of this application. The applicant has demonstrated that the swales are designed in line with SEPA advice and are sufficiently sized and located. If maintained properly, they will provide sufficient treatment of lightly contaminated runoff and therefore this is not considered to be a point source discharge to groundwater.

SEPA has assessed as satisfactory the Site & Baseline Report submitted with the application subsequent to further clarifications. This report evaluates past potential contamination and future pollution risks to both soil and groundwater (please see Section 5.9 of this Decision Document).

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 applicant is installing SuDS which has been designed to be fit-for-purpose and meets BAT.

4.4 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. For 64,000 birds to meet the limit of 170 kg N/Ha the range area is required to be at least 40 hectares. The range area for this proposal totals approximately 41.5 hectares. The entire ranging area will be included in the installation boundary.

The manure collected from the housing at least twice a week on manure belts will be conveyed to the covered manure stores. During the closed NVZ period from October – February manure will be stored in the manure stores. From March – September, the manure stores will still be used, however spreading of manure will be more frequent, roughly every 2 weeks – 1 month. Manure will be spread to land as organic fertiliser out with the installation boundary.

Washwater is collected in a below ground sealed tank prior to being spread on land out with the installation boundary.

The spreading to land of manure and washwater out with the installation boundary is covered by the Water Environment (Controlled Activities) (Scotland) Regulations 2011, General Binding Rule 18 (GBR 18).

4.5 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.

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

4.6 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. 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 (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 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.

The primary source of electricity will be from solar panels, with additional power supplied by the grid if required. A standby diesel generator will supply back-up power in the event of a mains outage.

The site will not be covered by a Climate Change Agreement.

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 for 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 4 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.

4.7 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 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

Foot baths are located at various locations around the site. The foot baths have lids and will therefore not overtop in wet weather. Spent disinfectant will be disposed of into the underground washwater tank. Where a disinfectant or effluent from cleaning may contain list I or II substances, washwater must be exported from site and disposed of at a suitably licenced facility. When a disinfectant does not contain list I or II substances, washwater can be spread to land in accordance with GBR 18.

Mortalities will be removed daily to a secure, vermin proof freezer in the Central Services Area. 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.

Sediment and oil from the wheel wash will be collected and disposed of to a suitably licensed facility. Special Waste Consignment Notes will be inspected at site inspections.

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.

4.8 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 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 (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.

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.

4.9 Site Condition report

As per Regulation 48 of the PPC Regulations a Site Report and a Baseline Report was submitted with the application.

Following statutory consultation with Scottish Water it came to light that the applicant had failed to identify that the site will be based in a Drinking Water Protected Area (DWPA). Scottish Water produced a list of precautions and required the applicant to assess and implement site specific risks and mitigation measures. The applicant also had to confirm that there were no Scottish Water assets in the area. The applicant provided detailed reports to Scottish Water to address their concerns and Scottish Water advised SEPA that they have no further comments to make.

The applicant did not collect soil samples to inform the baseline and site reports. Due to the sensitive nature of the groundwater and the area (NVZ & Drinking Water Protection Area), SEPA requested soil sampling was undertaken during the permit determination and that the baseline and site condition reports were updated.

Following receipt of the updated baseline and site condition reports, SEPA undertook a Hydrogeological review.

Historical mapping indicates no other land use other than arable farming over the past 180 years. All land to be used for the site (including the range area) has predominantly been used for cereal production. As such, no site specific contamination is expected. However, diffuse pollution, especially nutrient enrichment, is possible as a result of agricultural practices. The site sits within a NVZ and a DWPA for groundwater. The site is also directly adjacent to the River Deveron, which is a Drinking Water Protected Area for rivers.

A single round of surface water sampling was undertaken at three monitoring points to the west of the proposed poultry houses following a period of heavy rain. The results indicate that contaminant concentrations are relatively low. To ensure samples are representative of normal conditions, without unusually high dilution, future monitoring should be undertaken in the summer or early autumn when heavy rainfall is less likely.

Soil sampling was undertaken at eight locations across the site. There was an adequate distribution across the site with samples taken upstream and downstream of potential future emission locations. The soil samples were only tested for nutrient values.

Given that the River Deveron is a DWPA, the permit will require that additional samples be taken in the River Deveron both upstream and downstream of the permitted site prior to the unit starting up operations. The downstream sample should be located downstream ephemeral ditch that joins the River Deveron at the north eastern corner of the permit site. In addition, the site and baseline reports must be updated and this will provide a baseline and identify in future if activities are impacting on the river.

Due to the sensitive location of the site within a NVZ and DWPA, and the proposed wheel wash facility, annual groundwater and soil monitoring will be required by the permit. The monitoring points must be agreed with SEPA prior to monitoring taking place and must include upstream and downstream samples of the River Deveron.

4.10 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 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.

Water

N/A
Soil and Groundwater
Due to the sensitive location of the site within a NVZ and DWPZ, and the proposed wheel wash facility, annual groundwater and soil monitoring will be required by the permit. Refer to Section 5.9 of this decision document for a more detailed explanation.
Waste
N/A
4.11 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 application to benchmark farming activities. The application indicates that the installation will be operated in accordance with Best Available Techniques (BAT)

5 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
<p>Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008: The applicant demonstrated that the size of the ranging area is sufficient that deposition is in accordance with the limit of 170 kg N/hectare. See Section 5.4.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	

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
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6 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
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7 Details of the permit

Do you propose placing any non standard conditions in the Permit?	No
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Do you propose making changes to existing text, tables or diagrams within the permit?	No
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Officer:	CO
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8 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
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Outline the changes required and provide justification below:

N/A, standard ELV's apply.

Officer:	CO
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9 Peer Review

Has the determination and draft permit been Peer Reviewed?	Yes
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Comments made:

Request clarification of parent company name.
 Check emission factor quoted.
 Wording around surface water drainage.
 Comment re waste handling (manure/slurries are not waste)

Officer:	Peer Reviewer
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10 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.

DRAFT