

**Howden Eggs Limited
Howden Eggs**

Permit Application

PPC-A-5006420

Contents

1 Non-Technical Summary of Determination2

2 External Consultation and SEPA’s response3

3 Administrative determinations4

4 Introduction and Background5

4.1 Historical Background to the activity and variation5

4.2 Description of activity5

4.3 Outline details of the Variation applied for5

4.4 Guidance/directions issued to SEPA by the Scottish Ministers under Reg.60 or 615

4.5 Identification of important and sensitive receptors5

5 Key Environmental Issues7

5.1 Summary of significant environmental impacts7

5.2 Emissions to Air7

5.3 Emissions to Water13

5.4 Noise15

5.5 Resource Utilisation15

5.6 Waste Management and Handling16

5.7 Management of the site17

5.8 Site Condition (and Baseline) Report18

5.9 Monitoring (BAT 24, 25, 26, 27 & 29)19

5.10 Consideration of BAT and compliance with BAT-Cs if appropriate20

6 Other Legislation Considered20

7 Environmental Impact Assessment and COMAH21

8 Details of the permit21

9 Emission Limit Values or Equivalent Technical Parameters/Measures21

10 Peer Review22

11 Final Determination22

1 Non-Technical Summary of Determination

This application by Howden Eggs Ltd is for a new PPC permit (PPC/A/5006420) due to the expansion of the free-range egg business and corresponding increase in bird numbers. There is currently an operational hen shed on the site with capacity for 32,000 free range hens. Howden Eggs Ltd are proposing an additional 32,000 capacity hen shed, bringing the total capacity on the farm to 64,000 places for free range hens. The site is located at NT 4988 6740. The permit application is made under Schedule 1 Section 6.9 Part A paragraph (a) of the Pollution Prevention and Control (Scotland) Regulations 2012.

Howden Eggs Ltd is based at Howden Farm. The owner of Howden Farm is Mr Douglas Scott who has allocated different areas of Howden Farm to each of his 3 sons and there are three separate poultry businesses at Howden Farm, (East Lothian Eggs, Scott Eggs and Howden Eggs). For the purposes of PPC, they will all be separate installations. During pre-app discussions SEPA proposed that the entirety of Howden Farm should be one Permitted Installation but were advised that the companies operated independently and as there was no technical connections Howden Eggs would be applying for a PPC permit individually. Planning consent has also been sought individually.

The sheds are designed to minimise ammonia emissions; they are insulated to retain heat; concrete floored with a damp proof membrane; and with walls and roofs insulated to reduce the risk of condensation. Temperature and humidity are monitored continuously and adjusted where necessary to achieve optimal conditions for flock welfare and to maintain a low moisture content of the litter within the sheds.

Ventilation is by means of passive inlets on the roof and gable end extraction fans. On the existing shed, there are also roof extractor fans. Passive air flow will also occur when pop holes along the side walls, which allow hen access to the range area, are open. The ventilation system will be fully computer monitored, automated and regularly adjusted to control the climate within the sheds.

Power will be supplied by a combination of mains electricity and renewable sources. Roof mounted solar photovoltaic panels on the eastern elevation of the new shed will generate electricity for all sheds offsetting some of the requirement for mains electricity. There will be a standby diesel generator for backup power supply in the event of an emergency. The existing biomass boiler will continue to supply heating for both the existing and new sheds. A heat recovery system is also used which recovers heat from the building to be recycled in the Ground Source Heat Pump.

No feed mixing or milling will be carried out on site and feed specification is prepared by a nutrition specialist and supplied by accredited mills so that only approved ingredients are used. This will ensure that the correct feed is given in regard to the weight and age of hens. Water consumption is monitored and delivered by low leak nipple drinkers with cups to prevent spills.

Following delivery, chicks will be kept inside the sheds for approximately 12 weeks until they are mature enough to range. Daily access is provided to the birds, with pop holes open to the external ranging area. Internally, there is a multi-tiered system, allowing hens to roost, with the eggs collected on conveyor belts and sorted daily.

Manure is collected on belts positioned below the perches, removed at least twice a week. There is no additional forced air drying applied to the manure. Manure dries on the belt only as a result of ambient temperatures within the poultry house. It will then be collected and removed by conventional manure belts to covered trailers and transported off the permitted installation to neighboring farms. Once outside the site boundary General Binding Rule 18 of the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) will regulate the materials storage and application as an organic fertiliser.

The hens are in place for approximately 60 weeks, upon which they are removed from the sheds onto wagons and exported off-site. Once empty, the sheds will undergo a dry clean. There will be no wash water generated. They will be disinfected and prepared for the next flock.

Glossary of Terms

BAT	-Best Available Techniques
BREF	- Best Available Techniques Reference Document
BATC	- Best Available Technique Conclusions
CO	- Coordinating Officer
ELV	- Emission Limit Value
PPC	- Pollution Prevention and Control
PC	- Process contribution
PEC	- Predicted environmental concentration (PC plus the background concentration, and any other contributions from existing or planned sites, where relevant).

2 External Consultation and SEPA's response

Is Public Consultation Required? (if no delete rows below)		Yes
Advertisement Check:	Date	Compliance with advertising requirements
The Edinburgh Gazette	10/11/2023	Yes
East Lothian Courier	09/11/2023	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? (if no delete rows below)		Yes
Food Standards Agency:	Yes –No issues raised. “provided the applicant complies the relevant SEPA guidance and all other PPC guidance notes and regulations.”	
Health Board:	Yes -The potential exposure to the facility’s emission with consideration to background exposure, will not pose unacceptable risk to the residential receptors identified in the vicinity of the proposed facility provided the mitigation measures for the emissions are put in place and recommended and appropriately monitored.	
Local Authority	Yes –No response received.	
Scottish Water	No	
Health and Safety Executive	No	
NatureScot	Yes- NS accept the conclusion that the proposal is unlikely to cause significant impacts on the designated features of the sites on the assumption that SEPA is content with the technical accuracy of the	

	report and can confirm the adequacy and validity of the air emission data.
Discretionary Consultation required? (if yes provide justification and details below, otherwise delete row)	Yes
Scot Gov – SGRPID – no response received.	
Enhanced SEPA Consultation required? (if yes provide justification and details below, otherwise delete row)	No
“Off site” consultation required (if yes provide justification and details below, otherwise delete row)	No
Transboundary Consultation required? (if yes provide justification and details below, otherwise delete row)	No
Is Public Participation Consultation Required? (if yes provide justification and details below, otherwise delete rows below)	Yes
STATEMENT ON THE PUBLIC PARTICIPATION PROCESS The Pollution Prevention and Control (Public participation)(Scotland) Regulations 2005 requires that SEPA's draft determination of this application be placed on SEPA's website and public register and be subject to 28 days' public consultation. The dates between which this consultation took place, the number of representations received and SEPA's response to these are outlined below.	
Date SEPA notified applicant of draft determination	09 April 2024
Date draft determination placed on SEPA's Website	09 April 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	
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		
Part A Permit Application or Variation Dec. Doc (sec 2 technical)	Form: IED-DD-02	Page no: 4 of 23

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

This application by Howden Egg Ltd is for a new permit PPC/A/5006420. There is one existing 32,000 place free range hen shed in operation at the site and the proposal is for an additional 32,000 place free range hen shed to be erected adjacent to the current building. This will take the total capacity at the site to 64,000 birds.

The applicant was required to demonstrate that the sheds were designed having regard to the following principles outlined in the BREF and the BAT conclusions published in February 2017:

- Reducing the ammonia-emitting surface;
- Removing 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.

The new building proposed by Howden Eggs Ltd is on a greenfield site on former agricultural land.

4.2 Description of activity

Rearing of poultry intensively in an installation with more than 40,000 places is described in Part A of Section 6.9 (a) of Schedule 1 of the Regulations. by constructing an addition free range hen shed Howden Eggs Ltd will increase capacity from 32,000 places to 64,000 places.

Other Directly Associated Activities include:

- Feed delivery and storage
- Generator and fuel storage
- Biomass boiler and feedstock storage
- Water storage
- Chemical storage
- Manure handling and storage
- Dirty water storage
- Storage of fallen stock prior to disposal
- Management of lightly contaminated surface water

4.3 Outline details of the Variation applied for

N/A – New permit application.

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

None.

4.5 Identification of important and sensitive receptors

There are no SACs or SPAs within the screening distance.

The following 6 SSSI's were within the screening distance of the site:

Name	Distance (km)	Designated feature	Latest assessed condition
Lammer Law	5.9	Blanket bog Juniper scrub Upland assemblage Subalpine dry heath	Unfavourable no change 2014 Unfavourable declining 2005 Favourable maintained 2005 Unfavourable declining 2005
Danskine Loch	6.6	Fen woodland (+ nationally rare lichen sp)	Unfavourable declining 2009
Keith Water	7.4	Geological	
Bangley Quarry	7.9	Geological	
Garleton Hills	8.5	Geological	
Papana Water	8.7	Upland mixed ash woodland	Favourable maintained 2008

The distances given in the table above are from the centre of the emission source points to the closest point on the boundary of the respective designated conservation site. Keith Water, Bangley Quarry, and Garleton Hills SSSIs are designated solely for geological interest therefore no further assessment is required.

There were 21 residential receptors identified within 1 km of the site (table 6.3 of the AQIA). The closest of these is around 450m from the sheds

Receptor ID	OS Grid reference		Height (m)	Description
	X	Y		
How Knowe	349836	666755	1.5	Residential
End Cottage	350061	667606	1.5	Residential
Middle Cottage	350071	667598	1.5	Residential
Struie Cottage	350085	667590	1.5	Residential
Howden Cottage 1	350009	667635	1.5	Residential
Howden Farm Lodge	349980	667658	1.5	Residential
Howden Farmhouse	349905	667610	1.5	Residential
Muirwood	350118	667519	1.5	Residential
Bankrugg Cottage	350316	667407	1.5	Residential
Bankrugg House	350284	667432	1.5	Residential
Bankrugg	350322	667474	1.5	Residential
Howburn House	350269	667454	1.5	Residential
The Granary	350286	667472	1.5	Residential
The Storehouse	350271	667485	1.5	Residential
Newhall	350301	667502	1.5	Residential
The Old Dairy	350281	667510	1.5	Residential
Balfours House	350413	667611	1.5	Residential
Cauldshiel Farmhouse	348896	666499	1.5	Residential
Cauldshiel Bungalow	348903	666457	1.5	Residential
4 Cauldshiel Cottage	349037	666380	1.5	Residential
2 Cauldshiel Cottage	349029	666382	1.5	Residential

The 2 schools identified by the Health Board in their consultation response are at distances too far away to be affected by dust from the farm. SEPA's only requires an applicant to carry out an assessment of human health impact within a distance is 250m from the installation.

When assessing the impacts of the proposed unit on sensitive receptors the AQIA uses a central point on the installation and the range area was not modelled explicitly. SEPA agreed a factor of 0.108 for the central point.

Officer: CO

5 Key Environmental Issues

5.1 Summary of significant environmental impacts

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

- **Emissions to Air:** Ammonia, dust (PM10) and odour
- **Emissions to Land:** Waste, faecal material and nutrient inputs to land
- **Emissions to Water:** Surface water discharge to surface water and indirect to groundwater
- **Other Emissions:** Noise
- **Associated risks:** Fuel and chemical storage

SEPA aims to control these through the conditions contained in the permit and by the requirement on the operator to comply with BAT as indicated in the SFIR.

5.2 Emissions to Air

Point Source emission to air:

Ammonia (BAT 23 & 31)

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

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

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

- Walls and roofs are insulated, and concrete floors lined with an impermeable membrane (DPM).
- An automated system dispenses feed into feeders to minimise feed wastage through spillage.
- Non drip, low pressure nipple drinkers used to reduce wastage and maintain dry manure, thus reducing emissions of ammonia and odours
- Gable mounted exhaust fans operate via a computer controlled system to ensure the internal environment is kept stable and at optimum. Aside from flock requirements, automated control of ventilation and humidity also helps to keep manure dry.

Using the detailed modelling results presented in the air quality impact assessment, SEPA completed an appropriate assessment of likely significant effect below:

Lammer Law SSSI

	NH ₃ concentration (ug/m ³)	N Deposition (kg N/ha/yr)	Acid deposition (kEq H+/ha/yr)
Critical load/level	1	5	CLMaxS 0.26 CLminN 0.321 CLmaxN 0.589
Background	0.94	14.42	N 1.15 S 0.12

Scenario 2 – new shed			
Process contribution (PC)	0.001	0.003	0.002
Total (PEC)	0.94	14.4	1.27
PC as % critical load/level	0.07	0.07	0.07
Total as % critical load/level	94	288	216
Scenario 3 – cumulative			
Process contribution (PC)	0.005	0.028	0.002
Total (PEC)	0.95	14.4	1.27
PC as % critical load/level	0.54	0.56	0.07
Total as % critical load/level	95	289	216

Summary of result for Lammer Law SSSI – screening is passed, alone & in-combination

Scenario 1 – New Shed Alone:

The PEC is less than the critical level for ammonia concentration. The relevant PECs are greater than 100% of the critical load for nutrient nitrogen deposition and greater than 100% of the critical load function for acid deposition.

The PC to ammonia concentration, nutrient nitrogen deposition and acid deposition do not exceed the screening threshold. Therefore, a likely significant effect to sensitive ecological receptors can be ruled out and screening is passed.

Scenario 2 – Cumulative assessment:

The PEC is less than the critical level for ammonia concentration. The PEC is greater than 100% of the critical load for nutrient nitrogen deposition and greater than 100% of the critical load function for acid deposition.

The PC to ammonia concentration, nutrient nitrogen deposition and acid deposition do not exceed the screening threshold. Therefore, a likely significant effect to sensitive ecological receptors can be ruled out and screening is passed.

Danskine Loch SSSI

	NH ₃ concentration (ug/m ³)	N Deposition (kg N/ha/yr)	Acid deposition (kEq H+/ha/yr)
Critical load/level	1	10	CLMaxS 0.82 ClminN 0.223 ClmaxN 1.43
Background	1.16	16.1	N 0.85 S 0.11
Scenario 2 – new shed			
Process contribution (PC)	0.006	0.032	0.002
Total (PEC)	1.17	16.1	0.96
PC as % critical load/level	0.62	0.32	0.12
Total as % critical load/level	117	161	67
Process contribution (PC)	0.056	0.293	0.021
Total (PEC)	1.22	16.4	0.98
PC as % critical load/level	5.64	2.93	1.28
Total as % critical load/level	122	164	69

Summary of result for Danskine Loch SSSI – screening fails for cumulative ammonia concentration

Scenario 1 – New Shed Alone:

The PEC is less than 100% of the critical load function for acid deposition. The relevant PEC is greater than the critical level for ammonia concentration and the critical load for nutrient nitrogen deposition. The PC to ammonia concentration, nutrient nitrogen deposition and acid deposition do not exceed the screening threshold. Therefore, a likely significant effect to sensitive ecological receptors can be ruled out and screening is passed.

Scenario 2 – Cumulative assessment:

The PEC is less than 100% of the critical load function for acid deposition. The relevant PEC is greater than the critical level for ammonia concentration and the critical load for nutrient nitrogen deposition. The PC to nutrient nitrogen deposition and acid deposition do not exceed the screening threshold, however the process contribution to ammonia concentration breaches the threshold of 4%. Therefore screening is failed for ammonia concentration.

Papana Water SSSI

	NH ₃ concentration (ug/m ³)	N Deposition (kg N/ha/yr)	Acid deposition (kEq H+/ha/yr)
Critical load/level	1	5	CLMaxS 0.953 CLminN 0.142 CLmaxN 1.951
Background	1.16	16.1	N 1.33 S 0.14
Scenario 2 – new house			
Process contribution (PC)	0.005	0.026	0.002
Total (PEC)	1.16	16.1	1.47
PC as % critical load/level	0.49	0.51	0.06
Total as % critical load/level	116	323	75
Scenario 3 - cumulative			
Process contribution (PC)	0.04	0.206	0.015
Total (PEC)	1.2	16.3	1.49
PC as % critical load/level	3.96	4.12	0.46
Total as % critical load/level	120	326	76

Summary of result for Papana Water SSSI – screening fails cumulative ammonia & nitrogen deposition

Scenario 1 – New Shed Alone:

The PEC is less than 100% of the critical load function for acid deposition. The relevant PEC is greater than the critical level for ammonia concentration and the critical load for nutrient nitrogen deposition. The PC to ammonia concentration, nutrient nitrogen deposition and acid deposition do not exceed the screening threshold of 1%. Therefore, a likely significant effect to sensitive ecological receptors can be ruled out and screening is passed.

Scenario 2 – Cumulative assessment:

The PEC is less than 100% of the critical load function for acid deposition. The relevant PEC is greater than the critical level for ammonia concentration and the critical load for nutrient nitrogen deposition. The PC to acid deposition does not exceed the screening threshold. The process contribution to ammonia concentration is very close to but does not breach the screening threshold of 4%. The process contribution to nutrient nitrogen deposition exceeds 4% of the critical load therefore screening is failed for nutrient nitrogen deposition.

Relevant conservation management objectives to consider:

Danskin Water: designated for fen woodland, the [Site Management Statement](#) lists the following objectives for management:

1. Control the naturally regenerating birch and beech.
2. Control and eventually eliminate the non-native dogwood found within the site.
3. Control silt and nutrient inputs from the adjacent farmland and the fishery.
4. In the long term – restore the plantation woodland areas to native woodland.

Papana Water: designated for upland mixed ash woodland, the [Site Management Statement](#) lists the following objectives for management:

1. To maintain and enhance the woodland feature, ensuring that the broadleaf planting carried out in 1995 is well managed with the nurse crop of conifers being removed by 2015.
2. Control the spread of bracken throughout the SSSI by mechanical and/or chemical bracken removal followed by controlled cattle grazing.
3. Increase the percentage of canopy cover and tree regeneration present on the site.
4. Allow an accumulation of deadwood, both standing and fallen (20–30 cubic metres per hectare), ensuring that no deadwood is removed from the site.

Conclusion of Appropriate Assessment:

It is SEPA's view that the proposed expansion of Howden Eggs' operation at Howden Farm is unlikely to result in damage to the designated features of the relevant SSSIs.

Panana Water SSSI is designated for upland mixed ash woodland. The 2022 review and revision of empirical critical loads of nitrogen for Europe¹ set the minimum critical load for deciduous temperate forests at 10 kg N/ha/year. The submitted AQIA applied a critical load of 5 kg N/ha/year. Re-calculating the process contributions and total PEC as a percentage of the critical load of 10 kg N/ha/year gives a process contribution 2.06% of critical load.

APIS Site Relevant Critical Load advises a critical level of 3 ug/m³ for ammonia concentration at Papana Water; the AQIA applied a critical level of 1 ug/m³. Therefore, updating the ammonia concentration and nitrogen deposition results to follow APIS and CCE advice, gives the following:

	NH ₃ concentration (ug/m ³)	N Deposition (kg N/ha/yr)
Critical load/level	3	10
Background	1.16	16.1
Scenario 2 – new house		
Process contribution (PC)	0.005	0.026
Total (PEC)	1.16	16.1
PC as % critical load/level	0.17	0.26
Total as % critical load/level	38.6	161
Scenario 3 - cumulative		
Process contribution (PC)	0.04	0.206
Total (PEC)	1.2	16.3

¹ Bobbink *et al* 2022, [Review and revision of empirical critical loads of nitrogen for Europe](#), page 239

PC as % critical load/level	1.3	2.06
Total as % critical load/level	40	163

The predicted process contributions to ammonia concentration and nutrient nitrogen deposition are below the threshold and therefore are considered unlikely to have potential to damage the upland mixed ash woodland at Papan Water.

Danskine Loch SSSI is designated for fen woodland, a type of wet woodland (W7). It is dominated by willow species with some areas of regenerating birch with occasional ash and beech. The site also includes tall-herb understorey (M27), mesotrophic grassland (MG9), marshy grassland (M23), mixed woodland (W18), reedbed (S4) and the freshwater habitats of the loch (NVC types are as shown on the Scottish Wetland Inventory²). The underlying soil type is brown earth, a fertile mineral soil. The plant communities present indicate a moderate to nutrient rich environment. Dispersion modelling predicts a cumulative increase in ammonia concentration of 0.056 micrograms NH₃/m³, equivalent to 5.64% of a critical level of 1 micrograms NH₃/m³. Given the site conditions, the conservative estimates used, the relatively low additional contribution against background pollution levels and the marginal nature of the breach of screening thresholds, it is concluded that the proposed activity is unlikely to cause significant effects to the fen woodland designated feature.

Dust (BAT 11)

PM10 and PM 2.5 dust particles are subject to statutory air quality standards. These standards have been specified to reduce health effects and environmental risks to an acceptable level. Air quality limits and averaging periods are set out in the Air Quality Standards (Scotland) Regulations 2010. In addition to the air quality standards, Scotland has air quality objectives which are set out in the Air Quality (Scotland) Regulations 2000 (as amended)

Where sensitive receptors are located within 250m of a poultry unit, SEPA requests the Applicant screens the emissions of particulate matter to establish whether the emission might cause any air quality standards to be breached. In the case of Howden Eggs Ltd, PM10 was assessed as part of the AQIA. The AQIA detailed all sensitive receptors within 1km from the installation. SEPA assessment of the AQIA and conclusions is as follows:

The air quality objectives considered in the AQIA relevant to this assessment are:

- 24-hour mean PM₁₀ 50 µg /m³ not to be exceeded more than 35 times a year (equivalent to the 90.4 percentile)
- Annual mean PM₁₀ 40 µg /m³

In Scotland, an additional standard applies for PM10.

- 24-hour mean PM₁₀ 50 µg /m³ not to be exceeded more than 7 times a year (equivalent to the 98.1 percentile)
- Annual mean PM₁₀ 18 µg /m³

Background concentrations have been derived from the 2020 Scottish Government background maps. The PM background figure used was 10.51 µg/m³ and for short term standards twice this figure was used. The background concentrations are, therefore, acceptable. The emission factor is also acceptable and is the SCAIL emission factor. The data reported relates to the worst meteorological year (2016).

The data presented has included 21 residential receptors within 1km of the site (Table 6.3 of the AQIA). The closest of these is around 450 metres from the sheds.

PM₁₀

² [Map | Scotland's environment web](#)

Annual Average

The greatest process contribution was predicted to occur at Muirwood. The predicted concentration from the process was $2.46 \mu\text{g}/\text{m}^3$ which is 13.7 % of the air quality objective ($18 \mu\text{g}/\text{m}^3$). The background contribution ($10.5 \mu\text{g}/\text{m}^3$) raises the PEC to $13 \mu\text{g}/\text{m}^3$ or 72% of the air quality objective. As such, acknowledging the uncertainty associated with the modelling predictions, SEPA consider that the predicted-concentrations should meet the air quality objective. A factor of 3 for the error associated with the process contribution would give a process contribution of $7.38 \mu\text{g}/\text{m}^3$ or a predicted environmental concentration of $17.9 \mu\text{g}/\text{m}^3$ and a factor of 2 would give a process contribution of $4.92 \mu\text{g}/\text{m}^3$ or a predicted environmental concentration of $15.42 \mu\text{g}/\text{m}^3$.

Previous spatial plots show that some receptors for example, receptor 8 Middle cottage are close to the contour lines that suggest a higher risk. More detailed maps showing the isoclines for the predicted PM_{10} concentrations indicate that the annual mean is about 50m to the $3.0\text{-}4.0 \mu\text{g}/\text{m}^3$ isocline and 150 m to the $4.0\text{-}5.0$. At $3 \mu\text{g}/\text{m}^3$ the PEC would be 16.5 and 18.5 at 4.0 for a factor of 2. Therefore, the risk of exceedance is acceptable. The predicted concentration is $2.46 \mu\text{g}/\text{m}^3$ at receptor 6 and background is $10.5 \mu\text{g}/\text{m}^3$.

Daily Mean Objective

For the daily average, not to be exceeded more than 7 times per year (98.08 percentile), the greatest process contribution was at Howden cottage 1. The predicted concentration from the process was $8.0 \mu\text{g}/\text{m}^3$ which is 16 % of the air quality objective ($50 \mu\text{g}/\text{m}^3$). The background contribution ($21.0 \mu\text{g}/\text{m}^3$) raises the predicted environmental concentration to $29 \mu\text{g}/\text{m}^3$ or 58% of the air quality objective.

More detailed isocline maps indicate that the daily mean is about 50 m to the $10\text{-}12 \mu\text{g}/\text{m}^3$ isocline and 100 to the 12 to 15 isocline which is acceptable. At $10 \mu\text{g}/\text{m}^3$ the PEC would be 41 and 45 at 12 for a factor of 2. Even allowing a factor of 3 at the $10 \mu\text{g}/\text{m}^3$ isocline would be $45 \mu\text{g}/\text{m}^3$ and $57 \mu\text{g}/\text{m}^3$ at $12 \mu\text{g}/\text{m}^3$ isocline. The predicted concentration is $8 \mu\text{g}/\text{m}^3$ at receptor 3 and background was $21 \mu\text{g}/\text{m}^3$. Data is not shown for the daily average, not to be exceeded more than 35 times per year (90.41 percentile) but as the more stringent standard is compliant this one will be as well. As such SEPA consider that the predicted concentrations should meet the daily air quality objective.

PM_{2.5}

Annual Average

The results of the calculation for $\text{PM}_{2.5}$ show that the greatest process contribution was predicted to occur at Muirwood. The predicted concentration from the process was $1.38 \mu\text{g}/\text{m}^3$ which is 13.8 % of the air quality objective ($10 \mu\text{g}/\text{m}^3$). The background contribution ($5.4 \mu\text{g}/\text{m}^3$) raises the PEC to $6.8 \mu\text{g}/\text{m}^3$ or 68 % of the air quality objective. As such SEPA consider that the predicted concentrations should meet the air quality objective.

Conclusions

The Air Quality Impact Assessment has shown that there are no predicted exceedances of the air quality objectives for PM_{10} and $\text{PM}_{2.5}$.

Biomass Boiler and Emergency Generator

The biomass boiler is a Directly Associated Activity. The use of heat from a biomass boiler is considered to be BAT where:

- The fuel is derived from virgin timber and;

- The biomass boiler appliance and its installation meets the technical criteria to be eligible for the Renewable Heat Incentive, and;
- The aggregate boiler net rated thermal input is less than the 1MWth and;
- Where the stack height is greater than 1 metre above the roof level of any buildings within 25 metres (or where there are no buildings within 25 metres, the stack height must be a minimum of 3 metres above ground).

As it is a requirement of the animal welfare regulations that the birds have adequate heating and ventilation at all times a diesel generator is used as an emergency back-up power supply. SEPA are aware that diesel generators can give rise to dense fume especially at start up or if the generator is poorly maintained.

The Biomass boiler and generator must be operated in line with permit condition which states: *Other than condensed water vapour, all releases to the air during normal operations must be free from visible emissions.*

Fugitive emissions to air:

(BAT 1 & 11)

There are a number of potential fugitive emissions to air. These include the release of dust and ammonia during cleaning or opening of the poultry sheds for fallen stock removal and also from the birds themselves. Whilst SEPA accepts that some fugitive releases are unavoidable e.g. unplanned releases due to an unforeseen incident; others such as poor cleaning out practices can be controlled through the relevant management techniques. SEPA views fugitive releases to air from these activities as an indication of process or maintenance issues and would require any defects to be reported and rectified as soon as possible.

Although not specifically covered by conditions within the permit, maintenance issues are covered by the PPC Regulations under Regulation 22 which requires the use of BAT. SEPA seeks to reduce these occurrences by requiring operators to record maintenance issues and demonstrate a high degree of environmental management over the activities they undertake.

Bioaerosols:

SEPA does not have any specific policies in relation to bioaerosols from IA processes, there are currently no health criteria values available for interpreting the results of bioaerosol monitoring. Routine monitoring would be required at receptors within 250m should appropriate criteria for assessment be identified.

Odour:

(BAT 1, 12 & 13)

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

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

BAT 1 requires the permit holder to produce an Odour Management Plan having regard to BAT 12 detailing odour techniques and reduction of odour emissions in accordance with BAT 13. The permit will require that offensive odours not be emitted beyond the site boundary.

5.3 Emissions to Water

Point Source Emissions to Surface Water and Sewer:

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

There will be no increase in domestic wastewater as a result of the additional building. An existing package treatment plant will continue to operate and will be regulated under The Water Environment (Controlled Activities) (Scotland) Regulations 2011. The foul effluent system is not considered part of the Permitted Installation.

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

SUD's have been designed in line with the CREW RURAL SUDS Practical Guide and are suitably sized to treat the relevant drainage areas. Therefore there should be no emission in relation to SUDS treatment and so the permit does not contain discharge conditions or limits.

Should SEPA become aware of an issue with the SUDS, e.g. evidence that contaminated run off being discharged to the SUDS or discoloration of a nearby watercourse, action will be taken under condition 6.1.5 *"Unless specified elsewhere in this authorisation, there must be no individual source emissions from the authorised place to the water environment, air or land."*

Point Source Emissions to Groundwater:

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

The applicant has confirmed to SEPA that the business will operate a dry clean only. The permit will explicitly state this and should any wash down activities occur it would be a breach of permit conditions.

SEPA Water Resources Unit has assessed the baseline site condition report submitted with the permit application as satisfactory.

Fugitive Emissions to Water:

(BAT 1 & 6)

There are a number of potential sources which could lead to fugitive emissions to water, these include: poorly maintained surfaces and drainage systems, bird delivery and collection contaminating surface waters, lack of care during cleaning of the chicken sheds and diesel tank filling and associated bund emptying.

SEPA views fugitive releases as avoidable and can usually link these incidents to either operational error or negligence. SEPA seeks to reduce these occurrences by requiring the permit holder to implement BAT and provide training to relevant staff in environmental issues and exercising a high degree of environmental management and continual maintenance of the activities they undertake.

The applicant is installing SuDS to serve the new free range egg unit which shall be designed to be fit for purpose and meeting BAT.

The application does not refer to any formal vehicle washbay, Intensive farming installations usually use a knapsack sprayer to disinfect vehicle wheel when arriving at or leaving site. Areas of spraying should be at least 10m away from surface water drains and preparation of spray should be in a bunded area.

5.4 Noise

Noise (BAT 1, 9 & 10)

The predominant source of noise from poultry units is generated from the ventilation systems. Other sources of noise related to this type of activity can include vehicle movements in and around the site and the placement and removal of birds. The latter two are considered as being unlikely to cause issues as the activities will take place for such short durations as well as being infrequent. Regular maintenance of fans will also prevent noise and the noise management plan will address any issued that should arise and will be updated as stipulated in the permit.

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

As part of the application, the applicant has submitted a noise impact assessment which focusses on the operational noise of the proposal. The assessment concludes that the proposal will not give rise to significant adverse noise impacts.

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.

5.5 Resource Utilisation

Water use

(BAT 5)

Water use within the food production sector is primarily an animal welfare issue as the operator of the installation is required under other legislation to provide an adequate supply of clean water for both the welfare of the birds and to undertake adequate cleaning of infrastructure. It is up to the operator to demonstrate the use of BAT to minimise water usage, but SEPA does directly regulate water use through permit conditions requiring the operator to minimise water consumption and explore options for minimisation.

The greatest volume of water consumed is drinking water for the birds. Fresh water will be delivered to poultry via low leak nipple drinkers with drip collection cups to prevent spillages.

Energy use and generation

(BAT 8)

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

A computer-controlled system maintains the temperature within the housing units. The sheds will be powered by mains electricity supplemented by solar PV panels and heated by an existing biomass boiler. A heat recovery system is also used which recovers heat from the building to be recycled in the Ground Source Heat Pump

A standby generator will be available on site and will be well maintained and routinely checked for use in an emergency only.

Raw Materials Selection and Use

Annual use of raw materials will be considered in the resource efficient assessment required under the standard permit condition. The operator will be expected to assess the use of each raw material and identify any major changes, losses or areas where efficiencies can be made and report the assessment and resulting actions taken to SEPA every 4 years.

Chemicals:

Chemicals used in poultry rearing include cleaning and disinfection chemicals, pesticides, rodenticides, herbicides, insecticides and fungicides. All of these chemicals are required to be DEFRA-approved. In the application "supporting document 4. Assessment of Raw Materials and Energy Efficiency" states that all chemicals, medicines, pesticides and biocides will be stored in a secure storage unit within the hen shed buildings.

Agricultural Fuel Oil:

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

Water:

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

Feed (BAT 3 & 4):

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

Litter:

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

All applicants applying for PPC Part A permits are required to examine their Raw Material 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 allow the operator to identify where any efficiencies can be made and demonstrate continuing improvement.

5.6 Waste Management and Handling

Waste Minimisation

As a commercial operation, SEPA believes it is in the interest of both the company and the environment to minimise waste on the site, as a result SEPA encourages all IA PPC sites to examine their Raw Materials usage and seek ways to reduce their impact on the environment. Standard permit conditions require the operator to minimise waste and where possible develop and implement recycling or recovery strategies. Records will be kept on site of all waste streams and the source, quantity and disposal routes taken. This data will be reviewed every 4 years in the resource efficiency report required in the permit.

Waste Handling

The types of wastes generated on site shall not differ from those produced in the existing Free Range Egg business prior to it falling under PPC regulation. However, the additional bird places will see a corresponding increase in both bird mortalities and generation of manure.

Manure will be collected and removed by conventional manure belts, with ambient air drying, to covered trailers. It will then be transported off the permitted installation to neighboring farms. Once outside the

site boundary General Binding Rule 18 of the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) will regulate the materials storage and application as an organic fertiliser

Dead stock will be removed daily to a secure, vermin proof freezer in the pack room area and transferred offsite by a licensed contractor to be disposed of in accordance with the Animal By-Products (Enforcement) (Scotland) Regulations 2013.

The business has confirmed it will operate a dry clean only and therefore there will be no wash water handling on site.

The volume of other wastes stored on the site is minimal and 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 a commercial operation, SEPA believes it is in the interest of both the company and the environment to minimise waste on the site, as a result SEPA encourages all IA PPC sites to examine their Raw Materials usage and seek ways to reduce their impact on the environment. The permit has conditions requiring the operator to minimise waste and where possible develop and implement recycling or recovery strategies. Records will be kept on site of all waste streams and the source, quantity and disposal routes taken. This data will be reviewed every 4 years in the resource efficiency report required in the permit.

5.7 Management of the site

Environmental Management System

BAT 1 requires that the permitted activity is operated in accordance with an environmental management system (EMS). The BREF requires that in order to improve the overall environmental performance, the EMS should incorporate the following key features:

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

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

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

Accidents and their Consequences

(BAT1)

The Pollution Prevention and Control (Scotland) Regulations 2012 specifically preclude SEPA from adding conditions to a Permit regarding the Health and Safety of staff or workers on-site; however should an accident or incident occur that is likely to pose a risk to the environment or harm to human health in the wider community then SEPA would require, under the conditions of the permit, that not only must the

Operator take action to limit the immediate environmental impact, but where necessary implement changes to try to ensure that the event doesn't happen again.

In general, all accidents or incidents likely to cause pollution and all complaints to the site regarding nuisance emissions are required by the Permit to be recorded and dependent on the severity, notified to SEPA. Emergency preparedness and response (incident prevention and mitigation) are required as per BAT 1 as part of the Environmental Management System for the site.

Closure

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

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.

5.8 Site Condition (and Baseline) Report

The applicant has provided a comprehensive Site Condition and Baseline Report. The SCR identifies all substances held on site and information about the Relevant Hazardous Substances (RHS) contained within each, as well as details of how it is used and stored and the likelihood of release.

4 boreholes were sunk across accessible areas of the site and soil samples taken. In 3 of the boreholes groundwater monitoring standpipes were installed for ongoing groundwater monitoring and samples were taken. Analytical results were provided:

Soil (sampled 1/9/22 received 2/9/22)

Analysis	Units	LOD	BH01 D2	BH01 D3	BH01 D4	BH02 D1	BH02 D2	BH03 D2	BH04 D2	BH04 D3
Ammoniacal Nitrogen as N	mg/kg	0.5	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phosphate as PO4	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.32	<0.3
Total PAH	mg/kg	0.8	1.48	<0.8	<0.8	<0.8	<0.8	<0.8	9.17	4.88

Groundwater (sampled 'deviating' received 29/9/22)

Analysis	Units	LOD	BH01	BH02	BH02
Ammonia as NH3	mg/kg	0.015	0.7	0.13	0.1
Phosphorus (dissolved)	mg/kg	0.02	0.71	0.65	0.37
Total PAH	mg/kg	0.16	<0.16	<0.16	<0.16

Groundwater (sampled 2/10/22 received 13/10/22)

Analysis	Units	LOD	BH01	BH02	BH02
Ammonia as NH3	ug/kg	15	<15	<15	<15
Phosphorus (total)	mg/kg	0.02	0.23	0.14	0.23

Total PAH	mg/kg	0.16	<0.16	<0.16	<0.16
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SEPA Water Resources Unit has assessed the baseline site condition report submitted with the permit application as satisfactory but made the following comments in relation to a PWS borehole SEPA identified at How Knowe approximately 300m south of the site:

'The information on this potential receptor is not as detailed in this report as we asked in January 2024, however, in the 8 May 2023 initial site condition report for adjacent/associated East Lothian Eggs Ltd PPC application How Knowe PWS is given as a borehole with a depth of 45 m bgl located in the front garden of the property. Considering this information along with the potential source and pathway information presented by the Howden Eggs Ltd applicant in their revised Initial Site Condition Report, particularly S4.4, we agree that the risks to the PWS are likely to be low. We do not think that monitoring of the PWS as part of the PPC requirements is essential at this time. However, if in future there were any significant pollution incidents on site or if anything untoward were picked up during the routine site monitoring, then the potential risks to the PWS should be revisited if appropriate.'

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

Air

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

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

1. The total nitrogen and total phosphorus excreted in manure
2. Ammonia emissions to air
3. Dust emissions
4. Process parameters

The European Commission during deliberations around the revised BREF, accepted the proposal from the UK Technical Working Group to estimate emissions by using DEFRA approved emission factors to comply with the monitoring requirements for 1-3 identified above.

Water

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

Soil and Groundwater

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

The applicant has confirmed to SEPA that the business will operate a dry clean only. The permit will explicitly state this and should any wash down activities occur it would be a breach of permit conditions. SEPA Water Resources Unit has assessed the baseline site condition report submitted with the permit application as satisfactory. Routine Soil (every 10 years) and Groundwater (every 5 years) monitoring will be required by the permit. Any issues highlighted as a result of this routine monitoring would generate further investigation or mitigation. WRU commented that monitoring of the nearby PWS at How Knowe

was not required however if anything untoward was raised in future during routine site monitoring, then the potential risks to the PWS should be revisited in more detail.

Waste

As a commercial operation, SEPA believes it is in the interest of both the company and the environment to minimise waste on the site, as a result SEPA encourages all IA PPC sites to examine their Raw Materials usage and seek ways to reduce their impact on the environment. The permit has conditions requiring the operator to minimise waste and where possible develop and implement recycling or recovery strategies. Records will be kept on site of all waste streams and the source, quantity and disposal routes taken. This data will be reviewed every 4 years in the resource efficiency report required in the permit.

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

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

6 Other Legislation Considered

Nature Conservation (Scotland) Act 2004 & Conservation (Natural Habitats &c.) Regulations 1994

Is there any possibility that the proposal will have any impact on site designated under the above legislation?

No

If yes, provide information on the action and justification below:

SEPA Ecology reviewed and assessed the Air Quality Impact Assessment (AQIA) submitted in support of the application.

The Air Quality Impact Assessment (AQIA) was conducted using atmospheric dispersion modelling. The assessment evaluates the predicted contributions from the existing sheds 1 and 2 (32,000 birds total) plus the proposed hen shed and ranging areas at the site.

Cumulative predicted emissions from the following sources in proximity to the site are included in the assessment:

1. The operational hen shed located west of Howden Farm (operated by East Lothian Eggs, Planning reference: 19/00330/P, 32,000 birds)
2. The proposed new hen shed and external range (also East Lothian Eggs, Planning reference: 22/00239/P, 32,000 birds); and
3. The operational hen shed to the northwest and its range area (operated by Scott Eggs, Reference: 20/00851/P; 30,000 birds).

It is SEPA’s view that the proposed expansion of Howden Eggs’ operation at Howden Farm is unlikely to result in damage to the designated features of the relevant SSSIs. (See section 5.2).

Nature Scot were consulted via email on 13 October 2023 and gave the following response, “Nature Scot accept the conclusion that the proposal is unlikely to cause significant impacts on the designated features of the sites on the assumption that SEPA is content with the technical accuracy of the report and can confirm the adequacy and validity of the air emission data.”

Screening distance(s) used

10 km

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).

Yes

If yes, provide information on the legislation, action and justification below:	
<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.</p> <p>The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR): This primarily applies to land spreading activities that will be taking place out with the site boundary and will be regulated under GBR18.</p> <p>Foul drainage systems will be regulated separately under CAR and will not form part of the permitted installation.</p> <p>The requirements for the generator oil storage under these Regulations are met. 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 Directly Associated Activity (DAA) in the permit.</p>	
Officer	CO

7 Environmental Impact Assessment and COMAH	
<p>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?</p> <p>N/A</p>	
<p>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?</p> <p>N/A</p>	
Officer:	CO

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

9 Emission Limit Values or Equivalent Technical Parameters/Measures	
Are you are dealing with either a permit application, or a permit variation which would involve a review of existing ELVs or equivalent technical parameters?	Yes
Outline the changes required and provide justification below:	
<p>Emission limit values – Air</p> <p>Substance: Ammonia</p> <p>Relevant emission benchmarks: BAT AEL's</p> <p>ELV: 0.02-0.16 kg NH3/animal place/year</p> <p>Emission point: Poultry housing and ranging areas.</p>	

Rationale: BAT Associated Emission Limits (AELs) are a requirement introduced in the BREF. As part of the BREF review and 2017 publication of the BREF it was accepted by the Commission that operators could use emission factors to demonstrate compliance with the BAT AELs for ammonia. The emission factor used for a free-range multi-tier system is 0.108 kg NH₃/animal place/year, which is comfortably within the required range. The operator will be required to confirm on an annual basis that the DEFRA-emission factor still applies and that no changes have been made.

Substance: Total Nitrogen Excreted

Relevant emission benchmarks: BAT AEL's

ELV: 0.4-0.8 kg/animal place/year

Emission point: Manure collection Belts

Rationale: BAT AELs are a requirement introduced in the BREF. There are presently no approved emission factors, but it is expected that compliance will be demonstrated via mass balance using feed information and standard manure analysis.

Substance: Total Phosphorus Excreted

Relevant emission benchmarks: BAT AEL's

ELV: 0.10-0.45 kg/animal place/year

Emission point: Manure collection Belts

Rationale: BAT AELs are a requirement introduced in the BREF. There are presently no approved emission factors, but it is expected that compliance will be demonstrated via mass balance using feed information and standard manure analysis.

Officer:	CO
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10 Peer Review

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

Formatting corrections and addition of details around S&GW monitoring and minor amendments.

Officer:	PR
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11 Final Determination

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

Issue a Permit – Based on the information available at the time of the determination SEPA is satisfied that:

- The applicant will be the person who will have control over the operation of the installation/mobile plant,
- The applicant will ensure that the installation/mobile plant is operated so as to comply with the conditions of the Permit,
- The applicant is a fit and proper person (specified waste management activities only),

- Planning permission for the activity is in force (specified waste management activities only),
- That the operator is in a position to use all appropriate preventative measures against pollution, in particular through the application of best available techniques.
- That no significant pollution should be caused.

Draft for Consultation