

Elrig Eggs Ltd

Elrig Farm, Port William, Newton Stewart, DG8 9RB

Substantial variation

PPC/A/1142648 VN02

CONTENTS

| | | |
|------|---|----|
| 1 | NON TECHNICAL SUMMARY OF DETERMINATION..... | 2 |
| 2 | EXTERNAL CONSULTATION AND SEPA'S RESPONSE..... | 3 |
| 3 | ADMINISTRATIVE DETERMINATIONS | 5 |
| 4 | INTRODUCTION AND BACKGROUND..... | 5 |
| 4.1 | Historical Background to the activity and variation | 5 |
| 4.2 | Description of activity | 6 |
| | Outline details of the Variation applied for | 6 |
| 4.3 | Guidance/directions issued to SEPA by the Scottish Ministers under Reg.60 or 61..... | 6 |
| 4.4 | Identification of important and sensitive receptors | 6 |
| 5 | KEY ENVIRONMENTAL ISSUES..... | 8 |
| 5.1 | Summary of significant environmental impacts | 8 |
| 5.2 | Implications of the Variation on - Point Sources to Air | 8 |
| 5.3 | Implications of the Variation on - Point Source Emissions to Surface Water and Sewer | 15 |
| 5.4 | Implications of the Variation on - Point Source Emissions to Groundwater | 16 |
| 5.5 | Implications of the Variation on - Fugitive Emissions to Air | 16 |
| 5.6 | Implications of the Variation on - Fugitive Emissions to Water | 17 |
| 5.7 | Implications of the Variation on – Odour | 17 |
| 5.8 | Implications of the Variation on – Management | 17 |
| 5.9 | Implications of the Variation on - Raw Materials | 18 |
| 5.10 | Implications of the Variation on - Raw Materials Selection..... | 18 |
| 5.11 | Implications of the Variation on - Waste Minimisation Requirements | 18 |
| 5.12 | Implications of the Variation on - Water Use..... | 19 |
| 5.13 | Implications of the Variation on - Waste Handling | 19 |
| 5.14 | Implications of the Variation on - Waste Recovery or Disposal | 19 |
| 5.15 | Implications of the Variation on – Energy | 19 |
| 5.16 | Implications of the Variation for - Accidents and their Consequences | 19 |
| 5.17 | Implications of the Variation for – Noise..... | 20 |
| 5.18 | Implications of the Variation for – Monitoring..... | 20 |
| 5.19 | Implications of the Variation for – Closure..... | 20 |
| 5.20 | Implications of the Variation for - Site Condition Report (and where relevant the baseline report)..... | 20 |
| 5.21 | Implications of the Variation for - Consideration of BAT..... | 21 |
| 6 | OTHER LEGISLATION CONSIDERED..... | 21 |
| 7 | ENVIRONMENTAL IMPACT ASSESSMENT AND COMAH | 22 |
| 8 | DETAILS OF PERMIT | 22 |
| 9 | EMISSION LIMIT VALUES OR EQUIVALENT TECHNICAL PARAMETERS/ MEASURES | 23 |
| 10 | PEER REVIEW..... | 24 |
| 11 | FINAL DETERMINATION | 24 |
| 12 | REFERENCES AND GUIDANCE | 24 |

1 NON TECHNICAL SUMMARY OF DETERMINATION

This application by Elrig Eggs Ltd is for a variation to the existing permit PPC/A/1142648 to include a new pullet rearing unit at Low Killantrae approximately 1 mile from the existing farm. The new proposed rearing unit will have the capacity to house 64,000 birds in two new parallel buildings (32,000 in each building). The site is located at Ordnance Survey national grid reference NX 33226 45846. The application to vary the permit has been made under Regulation 46 of the Pollution Prevention and Control (Scotland) Regulations 2012.

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 to achieve optimal conditions for flock welfare and to maintain low moisture content in the litter.

Ventilation is by means of passive inlets on the side of the buildings and gable end extraction fans. All air movement is computer controlled to maximise bird welfare and fan operation is minimised to generate good air quality conditions but minimise draughts.

2 new wood chip fired boilers will provide heat to the sheds. Electricity will be supplied by the mains network with back up from emergency stand by diesel generator.

No feed mixing or milling is done at site and feed specification is prepared by nutrition specialist and supplied by accredited mills so that only approved ingredients are used. This ensures that protein levels are tailored throughout the flock cycle to comply with flock needs and environmental standards.

Water consumption is monitored and delivered to the birds by low leak nipple drinkers with cups.

Day old chicks are introduced onto a multi-tiered system provided with manure belts that remove manure from the houses several times a week. Manure is transferred to manure trailers in a covered manure building prior to storage at main Elrig farm and or application to land out with the site boundary.

Towards the end of the development cycle the birds will be on a fully littered floor which would be cleaned out after the birds are transferred to the main egg producing unit at Elrig Farm at approximately 16 weeks. The houses are then washed down. All wash water is collected in a sealed tank before being applied to land out with the permitted site boundary.

Collectively, these measures are intended to reduce the production and release of ammonia, odours and dust from the sheds, to prevent liquid washings escaping to the environment, and to manage the waste produced on-site. The variation application indicates that the installation will be operated in accordance with Best Available Techniques.

The installation of a Sustainable Drainage System to treat lightly contaminated surface and yard runoff *via* new swale adhere to the guidelines the CREW SuDS Guide, considered BAT for IA permitted installations.

SEPA has assessed as satisfactory the site report submitted with the substantial variation application for the new rearing unit at Low Killantrae. The report evaluates past potential contamination and future pollution risks to both soil and groundwater.

Determination was therefore to issue the substantial variation to PPC permit PPC/A/1142648 based on the application submitted.

| |
|---|
| Glossary of terms |
| APIS – Air Pollution Information System HTTPS://WWW.APIS.AC.UK |
| BAT - Best Available Techniques |
| CO - Coordinating Officer |
| CREW Rural SuDS Guide - CREW Rural Suds Design and Build Guide' means the Duffy, A. Moir, S. Berwick, N. Shabashow, J. D'Arcy, B. Wade R. (2016). Rural Sustainable Drainage Systems: A Practical Design and Build Guide for Scotland's Farmers and Landowners, CRW2015/2.2, available online at WWW.CREW.AC.UK/PUBLICATIONS |
| ELV - Emission Limit Value |
| SAC - Special Area of Conservation |
| SCAIL – Simple Calculation of Atmospheric Impact Limits |
| SFIR- Standard Farming Installation Rules |
| SPA – Special Protected Area |
| SSSI- Site of Specific Scientific Interest |
| SUDS- Sustainable Urban Drainage System |
| UFAS- Universal Feed Assurance Scheme |

2 EXTERNAL CONSULTATION AND SEPA'S RESPONSE

Is Public Consultation Required - Yes

| Advertisements Check: | Date | Compliance with advertising requirements |
|------------------------------|----------------------------|---|
| Edinburgh Gazette | 22 nd July 2022 | Yes |
| Stranraer Free Press | 21 st July 2022 | 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: Response received 05/08/2022 – “Based on the application and provided that the applicant complies with the relevant SEPA Guidance and all other relevant PPC Guidance Notes and Regulations, Food Standards Scotland considers it unlikely that there will be any unacceptable effects on the human food chain from the emissions from this installation.”

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|---|
| Health Board: No response received |
| Local Auth: No response received |
| Scottish Water: No response received |
| Health and Safety Executive: No response received |
| <p>Southern Scotland NatureScot (formerly Scottish Natural Heritage) (PPC Regs consultation): Response received 19/08/2022 - "We understand that the variation request is to enable the construction of a new poultry unit at Low Killantrae, Elrig, which could house up to 64,000 day old pullets until they reach the age of sixteen weeks, when they would be removed to Elrig Farm, c. 2.4 km to the north.</p> <p>Designated sites:</p> <ol style="list-style-type: none"> Luce Bay and Sands Special Area of Conservation (SAC): the new unit would be located c. 370 m distant from the nearest part of this SAC, designated at an international level for a range of marine and coastal habitats. From our knowledge of this very large SAC, we believe that the particular designated habitats present within c. 10 km of the poultry unit are restricted to two from the SAC's list, namely "mudflats and sandflats not covered by seawater at low tide" and "large shallow inlets and bays". Having studied the data in the submitted SCAIL report, we see that the predicted ammonia concentration for this part of the SAC is 2.56 mg/m³, which is lower than the Critical Level of 3 mg/m³ (for habitats of this type). With regard to nitrogen deposition, APIS does not provide a Critical Load for these habitats because they are not particularly sensitive to nitrogen deposition. Consequently, we believe that the SAC can be screened out. Dowalton Loch Site of Special Scientific Interest (SSSI): the new unit would be c. 5.5 km distant from the nearest part of this SSSI, designated for its nationally important lowland grassland and fen woodland habitats. The SCAIL data for this site show that the predicted ammonia concentration of 1.99 mg/m³ would remain lower than the Critical Level of 3 mg/m. Also, the nitrogen deposition would rise only very slightly from 18.34 to 18.47 kg/ha/yr. APIS suggests that the fen woodland feature could be sensitive to nitrogen deposition and gives a Critical Load figure of 10 – 15 kg/ha/yr, but given that the existing level is much higher than that already, we doubt that adding another 0.13 kg/ha/yr would lead to any significant effect on the feature. APIS suggests that the grassland feature is not especially sensitive and, consequently, we believe that the SSSI can be screened out. <p>Conclusion:</p> <p>For the reasons given above, we believe that the SAC and the SSSI can be screened out of further assessment. We may have missed it but the consultation did not appear to include an analysis by SEPA (which we usually expect to see with such consultations) nor any particular query. Please let me know if the above comments do not satisfy your requirements."</p> |
| Discretionary Consultation -NO |
| Enhanced SEPA public consultation -NO |
| 'Off-site' Consultation -NO |
| Transboundary Consultation -NO |
| Public Participation Consultation -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. | |
| <i>Date SEPA notified applicant of draft determination</i> | 23/11/2022 |
| <i>Date draft determination placed on SEPA's Website</i> | 23/11/2022 |
| <i>Details of any other 'appropriate means' used to advertise the draft</i> | |
| <i>Date public consultation on draft permit opened</i> | 23/11/2022 |
| <i>Date public consultation on draft permit consultation closed</i> | |
| <i>Number of representations received to the consultation</i> | |
| <i>Date final determination placed on the SEPA's Website</i> | |
| <i>Summary of responses and how they were taken into account during the determination:</i> | |

| |
|--|
| 3 ADMINISTRATIVE DETERMINATIONS |
| <i>Determination of the Schedule 1 activity</i> |
| As detailed in the application and supporting documentation |
| <i>Determination of the stationary technical unit to be permitted:</i> |
| As detailed in the application and supporting documentation |
| Determination of directly associated activities: |
| As detailed in the application and supporting documentation |
| Determination of 'site boundary' |
| As detailed in the application and supporting documentation |
| Officer: CO |
| 4 INTRODUCTION AND BACKGROUND |

4.1 Historical Background to the activity and variation

This application by Elrig Eggs Ltd is for a variation to the existing permit PPC/A/1142648 to include a new pullet rearing unit at Low Killantrae approximately 1 mile from the existing Elrig farm egg laying unit. The new proposed rearing unit will have the capacity to house 64,000 birds in two new parallel buildings (32,000 in each building).

The applicant was required to demonstrate that all 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 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 new housing demonstrate that the chosen design addresses the above principles.

The new rearing unit at Low Killantrae is on a greenfield site on former agricultural land.

4.2 Description of activity

Rearing 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. Elrig Eggs Ltd currently has places for 176,000 free range egg layers.

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.

Outline details of the Variation applied for

The proposed Variation to the Permit will increase bird numbers to 240,000 by the addition of the 2 new rearing sheds at Low Killantrae.

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

None

4.4 Identification of important and sensitive receptors

Three Special Areas of Conservation or Special Protection Areas were found within the screening distance of the project. These are given below, with the qualifying interests for the SAC/SPA (habitats and/or species) and site condition (and date of assessment) for each of these interests.

Luce Bay and Sands SAC

| Qualifying interest | Latest assessed condition |
|---------------------|---------------------------|
|---------------------|---------------------------|

| | |
|-----------------------------------|-----------------------------|
| Coastal dune heathland | Unfavourable declining 2009 |
| Dune grassland | Unfavourable no change 2009 |
| Shifting dunes | Unfavourable declining 2009 |
| Shifting dunes with marram | Unfavourable declining 2009 |
| Intertidal mudflats and sandflats | Not assessed |
| Great crested newt | Unfavourable declining 2010 |

- Also designated for 3 marine features which are not sensitive to eutrophication

River Bladnoch SAC

| Qualifying interest | Latest assessed condition |
|---------------------|------------------------------|
| Atlantic salmon | Unfavourable recovering 2011 |

Mochrum Lochs SAC

| Qualifying interest | Latest assessed condition |
|--------------------------------|-----------------------------|
| Blanket bog | Unfavourable no change 2006 |
| Depressions on peat substrates | Unfavourable no change 2006 |

| Name | Distance from centre of Elrig (km) | Distance from Low Killantrae (km) |
|------------------------|------------------------------------|-----------------------------------|
| Luce Bay and Sands SAC | 2.3 | 0.5 |
| River Bladnoch SAC | 3.6 | 6.1 |
| Mochrum Lochs SAC | 5.4 | 7.8 |

Three SSSIs were found within the screening distance of the project. These are given below, with their designated features:

| Name | Distance (km) | Designated feature | Latest assessed condition |
|------------------------|---|---|--|
| Mochrum Lochs | 4.9 from Elrig centre; 7.2 from Low Killantrae | Blanket bog Oligotrophic loch Cormorant, breeding | Unfavourable no change (2006) Unfavourable declining (2009) Unfavourable declining (2009) |
| Dowalton Loch | 6.2 from Elrig centre; 5.4 from Low Killantrae | Fen woodland Lowland neutral grassland | Favourable maintained (2010) Unfavourable declining (2010) |
| Back Bay to Carghidown | 9.7 from Elrig centre; 7.3 from Low Killantrae | Vascular plant assemblage Shingle Saltmarsh Maritime cliff | Favourable maintained (2015) Favourable declining (2013) Favourable maintained (2013) Favourable declining (2013) |

The following human health receptors were identified within 250m of the proposed sheds at Low Killantrae:

- Low Killantrae Farmhouse

- High Killantrae Cottage

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 variation and by the requirement on the operator to comply with BAT as indicated in the SFIR.

5.2 Implications of the Variation on - Point Sources to Air

Ammonia

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.

Results of SEPA SCAIL screening:

Initial assessment – all sources:

Luce Bay and Sands SAC

| | NH ₃ concentration (ug/m ³) | N Deposition (kg N/ha/yr) | Acid deposition (kEq H ⁺ /ha/yr) |
|--------------------------------|--|---------------------------|---|
| Critical load/level | 3 | 8 | 0.64 |
| Process contribution (PC) | 0.51 | 2.6 | 0.18 |
| Background | 1.66 | 16.8 | 1.3 |
| Total (PEC) | 2.17 | 19.4 | 1.48 |
| PC as % critical load/level | 17 | 33 | 28 |
| Total as % critical load/level | 72 | 243 | 231 |

Summary of screening result for Luce Bay and Sands SAC: **Failed for nitrogen and acid deposition**

River Bladnoch SAC

| | NH ₃ concentration (ug/m ³) | N Deposition (kg N/ha/yr) | Acid deposition (kEq H ⁺ /ha/yr) |
|--------------------------------|--|---------------------------|---|
| Critical load/level | 3 | Not applicable | Not applicable to aquatic habitats |
| Process contribution (PC) | 0.1 | 0.53 | 0.036 |
| Background | 1.17 | 14.56 | 1.15 |
| Total (PEC) | 1.27 | 15.09 | 1.19 |
| PC as % critical load/level | 3 | Not applicable | Not applicable |
| Total as % critical load/level | 42 | Not applicable | Not applicable |

Summary of screening result for River Bladnoch SAC: **Passed**

Mochrum Lochs SAC

| | NH ₃ concentration (ug/m ³) | N Deposition (kg N/ha/yr) | Acid deposition (kEq H ⁺ /ha/yr) |
|-----------------------------|--|---------------------------|---|
| Critical load/level | 1 | 5 | 0.69 |
| Process contribution (PC) | 0.12 | 0.61 | 0.041 |
| Background | 1.05 | 13.86 | 1.10 |
| Total (PEC) | 1.17 | 14.47 | 1.14 |
| PC as % critical load/level | 12 | 12 | 6 |

| | | | |
|--------------------------------|------------|------------|------------|
| Total as % critical load/level | 117 | 289 | 165 |
|--------------------------------|------------|------------|------------|

Summary of screening result for Mochrum Lochs SAC: **Failed**

Mochrum Lochs SSSI

| | NH ₃ concentration (ug/m ³) | N Deposition (kg N/ha/yr) | Acid deposition (kEq H+/ha/yr) |
|--------------------------------|--|---------------------------|--------------------------------|
| Critical load/level | 1 | 5 | 0.69 |
| Process contribution (PC) | 0.14 | 0.71 | 0.048 |
| Background | 1.05 | 13.86 | 1.10 |
| Total (PEC) | 1.19 | 14.57 | 1.15 |
| PC as % critical load/level | 14 | 14.2 | 7 |
| Total as % critical load/level | 119 | 291.4 | 167 |

Summary of screening result for Mochrum Lochs SSSI: **Failed**

Dowalton Loch SSSI

| | NH ₃ concentration (ug/m ³) | N Deposition (kg N/ha/yr) | Acid deposition (kEq H+/ha/yr) |
|--------------------------------|--|---------------------------|--------------------------------|
| Critical load/level | 3 | 10 | 0.64 |
| Process contribution (PC) | 0.05 | 0.27 | 0.018 |
| Background | 1.97 | 18.34 | 1.41 |
| Total (PEC) | 2.02 | 18.61 | 1.43 |
| PC as % critical load/level | 2 | 3 | 3 |
| Total as % critical load/level | 67 | 186 | 223 |

Summary of screening result for Dowalton Loch SSSI: **Passed**

Back Bay to Carghidown SSSI

| | NH ₃ concentration (ug/m ³) | N Deposition (kg N/ha/yr) | Acid deposition (kEq H+/ha/yr) |
|-----------------------------|--|---------------------------|--------------------------------|
| Critical load/level | 3 | 8 | 0.64 |
| Process contribution (PC) | 0.07 | 0.35 | 0.024 |
| Background | 1.2 | 12.88 | 1.01 |
| Total (PEC) | 1.27 | 13.23 | 1.03 |
| PC as % critical load/level | 2 | 4 | 3 |

| | | | |
|--------------------------------|----|-----|-----|
| Total as % critical load/level | 42 | 165 | 161 |
|--------------------------------|----|-----|-----|

Summary of screening result for Back Bay to Carghidown SSSI: **Passed**

NatureScot were consulted and advised that Luce Bay and Sands SAC can be screened out due to distance to the designated features which are sensitive to air pollution; these features are located greater than 10km distant from any of the poultry houses. Designated features in the SAC which are within 10km of the poultry housing are not sensitive to nitrogen air pollution.

Assessment – new sources only:

Mochrum Lochs SAC

| | NH ₃ concentration (ug/m ³) | N Deposition (kg N/ha/yr) | Acid deposition (kEq H+/ha/yr) |
|--------------------------------|--|---------------------------|--------------------------------|
| Critical load/level | 1 | 5 | 0.69 |
| Process contribution (PC) | 0.033 | 0.17 | 0.011 |
| Background | 1.05 | 13.86 | 1.10 |
| Total (PEC) | 1.08 | 14.03 | 1.11 |
| PC as % critical load/level | 3 | 3 | 1 |
| Total as % critical load/level | 108 | 281 | 161 |

The process contributions due to the new emissions is less than 4% for ammonia, nutrient nitrogen deposition and acid deposition, which is below the screening threshold so screens out due to the small increment in pollutants. It is unlikely that the small process contribution would make a significant effect against the background exceedances.

Mochrum Lochs SSSI

| | NH ₃ concentration (ug/m ³) | N Deposition (kg N/ha/yr) | Acid deposition (kEq H+/ha/yr) |
|-----------------------------|--|---------------------------|--------------------------------|
| Critical load/level | 1 | 5 | 0.69 |
| Process contribution (PC) | 0.044 | 0.23 | 0.016 |
| Background | 1.05 | 13.86 | 1.10 |
| Total (PEC) | 1.09 | 14.09 | 1.12 |
| PC as % critical load/level | 4 | 4.6 | 3 |

| | | | |
|--------------------------------|-----|-------|-----|
| Total as % critical load/level | 109 | 277.2 | 162 |
|--------------------------------|-----|-------|-----|

The process contribution due to the new emissions is less than 4% for acid deposition, which is below the screening threshold so screens out due to the small increment in acidifying compounds.

The process contributions due to the new emissions for ammonia concentration and nutrient nitrogen deposition is 4% and 4.6% respectively, which is a marginal breach of the screening threshold. However, it is unlikely that the small process contribution would make a significant effect against the background exceedances, therefore on balance it is concluded that the emissions arising from the new housing is unlikely to have potential to damage the designated features of Mochrum Lochs SSSI.

Dust (PM10)

PM10 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. The new rearing unit at Low Killantrae required further assessment from SEPA's Evidence and Flooding team, response and conclusion as follows:

The SCAIL Tool Guidance [1] provides screening criteria for PM₁₀:

The relevant regulatory authority should be contacted for advice regarding as to whether further detailed modelling will be required if one or more of the following threshold levels are met or exceeded (based on results produced using the Conservative Met run mode):

- PM₁₀ greater than the threshold level of 10% of the relevant standard / critical level.

Source 1 PPC/A/1142648 Elrig Site Existing sheds 1-9

Table 1 Assessment of the annual average PM10 concentration of 18 µg/m³ from existing Elrig sheds.

| NAME | Process Contribution | Background | Predicted Environmental Concentration | % PC/EAL |
|-------------------------|----------------------|------------|---------------------------------------|----------|
| High Killantrae Cottage | 0.04 | 8.48 | 8.52 | 0.2 |
| Low Killantrae Farm | 0.04 | 8.9 | 8.95 | 0.2 |

Table 2 Assessment of the daily average PM10 concentration of 50 µg/m³ not to be exceeded more than seven times per year Equivalent to 98.1 percentile from existing Elrig sheds.

| NAME | Process Contribution | Background | Predicted Environmental Concentration | % PC/EAL |
|-------------------------|----------------------|------------|---------------------------------------|----------|
| High Killantrae Cottage | 0.23 | 16.96 | 17.19 | 0.5 |
| Low Killantrae Farm | 0.23 | 17.82 | 18.05 | 0.5 |

Table 3 Assessment of the daily average PM10 concentration of $\mu\text{g}/\text{m}^3$ not to be exceeded more than thirty-five times per year. Equivalent to 90.4 percentile.

| NAME | Process Contribution | Background | Predicted Environmental Concentration | % PC/EAL |
|-------------------------|----------------------|------------|---------------------------------------|----------|
| High Killantrae Cottage | 0.12 | 16.96 | 17.08 | 0.24 |
| Low Killantrae Farm | 0.1 | 17.82 | 17.92 | 0.2 |

For the existing sheds at Elrig Farm the population of birds was 144,000. The process contribution to the receptors near the low Killantrae site is minor with the process contribution from this source was less than 0.5% of the process contribution.

Source 2 PPC/A/1142648 Elrig Site new sheds 10-11

Table 4 Assessment of the annual average PM10 concentration of $18 \mu\text{g}/\text{m}^3$ from new Elrig sheds.

| NAME | Process Contribution | Background | Predicted Environmental Concentration | % PC/EAL |
|-------------------------|----------------------|------------|---------------------------------------|----------|
| High Killantrae Cottage | 0.01 | 8.48 | 8.49 | <0.1 |
| Low Killantrae Farm | 0.01 | 8.91 | 8.92 | <0.1 |

Table 5 Assessment of the daily average PM10 concentration of $50 \mu\text{g}/\text{m}^3$ not to be exceeded more than seven times per year Equivalent to 98.1 percentile from new Elrig sheds.

| NAME | Process Contribution | Background | Predicted Environmental Concentration | % PC/EAL |
|-------------------------|----------------------|------------|---------------------------------------|----------|
| High Killantrae Cottage | 0.03 | 16.96 | 16.99 | <0.1 |
| Low Killantrae Farm | 0.03 | 17.82 | 17.85 | <0.1 |

Table 6 Assessment of the daily average PM10 concentration of $\mu\text{g}/\text{m}^3$ not to be exceeded more than thirty-five times per year. Equivalent to 90.4 percentile from new Elrig sheds.

| NAME | Process Contribution | Background | Predicted Environmental Concentration | % PC/EAL |
|-------------------------|----------------------|------------|---------------------------------------|----------|
| High Killantrae Cottage | 0.07 | 16.96 | 17.08 | <0.1 |
| Low Killantrae Farm | 0.06 | 17.82 | 17.92 | <0.1 |

For the new sheds at Elrig Farm the population of birds was 32,000. The process contribution to the receptors near the low Killantrae site is very minor with the process contribution from this source was less than 0.1% of the process contribution.

Considering these two receptors together, the contribution to the receptors close to low Killantrae site is minor. In real terms this minor contribution can be ignored when considering the particulate matter issues at low Killantrae.

Source 3 Low Killantrae Pullet FarmTable 7 Assessment of the annual average PM10 concentration of 18 µg/m³ from Low Killantrae Pullet Farm.

| NAME | Process Contribution | Background | Predicted Environmental Concentration | % PC/EAL |
|-------------------------|----------------------|------------|---------------------------------------|-----------|
| High Killantrae Cottage | 1.34 | 8.48 | 9.82 | 7.4 |
| Low Killantrae Farm | 2.7 | 8.91 | 11.61 | 15 |

Table 5 Assessment of the daily average PM10 concentration of 50 µg/m³ not to be exceeded more than seven times per year Equivalent to 98.1 percentile from Low Killantrae Pullet Farm.

| NAME | Process Contribution | Background | Predicted Environmental Concentration | % PC/EAL |
|-------------------------|----------------------|------------|---------------------------------------|-------------|
| High Killantrae Cottage | 5.54 | 16.96 | 22.5 | 11.1 |
| Low Killantrae Farm | 11.72 | 17.82 | 29.54 | 23 |

Table 6 Assessment of the daily average PM10 concentration of µg/m³ not to be exceeded more than thirty-five times per year. Equivalent to 90.4 percentile from Low Killantrae Pullet Farm.

| NAME | Process Contribution | Background | Predicted Environmental Concentration | % PC/EAL |
|-------------------------|----------------------|------------|---------------------------------------|-------------|
| High Killantrae Cottage | 3.49 | 16.96 | 20.45 | 7 |
| Low Killantrae Farm | 6.94 | 17.82 | 24.76 | 13.9 |

In terms of the modelled annual mean PM₁₀ process contributions at the most impacted receptor, Low Killantrae Farm, the concentrations exceed the SCAIL screening criteria (15 %) (Table 7), i.e., the PC as a percentage of the environmental assessment level (EAL) is greater than 10%.

The modelled 24 hour mean PM₁₀ process contributions (PC), the concentrations exceed the SCAIL screening criteria at the most impacted receptor, Low Killantrae Farm, the concentrations exceed the SCAIL screening criteria (23 %) for the 98.1 percentile (Table 8) .

The modelled 24 hour mean PM₁₀ process contributions (PC), the concentrations exceed the SCAIL screening criteria at the most impacted receptor, Low Killantrae Farm, the concentrations exceed the SCAIL screening criteria (13.9 %) for the 90.4 percentile (Table 9) .

In conclusion, the SCAIL PM₁₀ screening criteria are exceeded for both 24 hour mean and annual mean objectives implying a requirement for "further detailed modelling".

The SCAIL criteria are designed to highlight when the regulatory authority, in this case SEPA, should be contacted for advice regarding as to whether further detailed modelling will be required when the threshold levels are met or exceeded. The threshold is 10% of the process contribution. Considering the

predicted process contributions, the SCAIL PM₁₀ screening criteria are exceeded for both 24 hour mean and annual mean objectives implying a requirement for “further detailed modelling”.

The site is located in Dumfries and Galloway, an area with a relatively low background concentration of PM₁₀, the SCAIL model predicted an annual average of 8.5 µg/m³ which is just under half the air quality objective of 18 µg/m³. The process contribution at the worst affected receptor is 2.7 µg/m³ and the predicted environmental concentration is 11.6 µg/m³ which is 65 % of the air quality objective of 18 µg/m³.

Similarly, for the daily mean not to be exceeded more than seven times the SCAIL model predicted an annual average of 17 µg/m³ which is just over a third of the air quality objective of 50 µg/m³. The process contribution at the worst affected receptor is 11.7 µg/m³ and the predicted environmental concentration is 29.8 µg/m³ which is 60 % of the air quality objective of 50 µg/m³.

Based on this information particularly the low background contribution, SEPA considers that the risk of exceeding the air quality objectives is relatively low. The fans are situated on the opposite end of the sheds to the receptor which will ameliorate the impact at the receptor.

In conclusion, although, the SCAIL PM₁₀ screening criteria are exceeded for both 24 hour mean and annual mean objectives implies a requirement for “further detailed modelling” could be disregarded in this instance.

Biomass Boilers

The biomass boilers are 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 1MWth where the stack height is greater than 1 meter 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).

The emissions from the boilers are expected to meet Ringelmann Shade 1 during start up and no visible smoke during operation.

Diesel Generator

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 these diesel generators can give rise to dense fume especially at start up or if the generator is poorly maintained. The permit variation will contain a requirement for the operator to visually monitor the generator to comply with Ringelmann shade 1 at start up and no visible emissions in normal operation.

5.3 Implications of the Variation on - Point Source Emissions to Surface Water and Sewer

There are no public sewers within the vicinity of the Low Killantrae rearing unit and therefore there will be no discharges to sewer.

A septic tank will be installed to collect all domestic wastewater from the welfare amenities and discharge to a herringbone soakaway system to the south of the new buildings. This is to be authorised 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 poultry shed roofs, scratch areas and low-contamination yards will be directed to two swales (please see LKE 3 Site layout with drainage v6 and LKE (sd) 19 Design of Swales v2) for which the relevant capacity calculations have demonstrated adequate storage for

this purpose. The installation of a Sustainable Drainage System to treat surface and yard runoff via new swales adhere to the guidelines the CREW SuDS Guide, considered BAT for IA permitted installations

Drainage will be conveyed to the swales with solid pipes (see LKE 3a Site Layout Drainage detail north end houses). The applicant will install 2 linear swales operating on a first flush separator principle. The first swale will treat the 'first flush' containing the majority of dust and nutrients having a longer period of contact with the grass sward and provide better treatment. The first flush principle is acceptable provided the swales are well maintained - much of the nutrient loading, particularly phosphorous, will be in the first swale and this may require a greater level of maintenance. The outlet from the second and final swale will discharge via field drains to the Barr Burn.

5.4 Implications of the Variation on - 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 that the swales 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.

All wash water will be directed to, and collected in, two 10m³ tanks (one serving each house). Any drainage containing disinfectant will be contained along with the wash water. Wash water will be stored only for a short period of time at Low Killantrae and tank will be emptied when necessary. The wash water will then be spread to land off the permitted area but on the owners own farm. This activity will be regulated by GBR18. If ground or weather conditions are unsuitable for application to land SEPA is aware from previous inspection of the main Elrig unit that there is sufficient slurry storage facilities available.

SEPA has assessed as satisfactory the Site Report submitted with the substantial variation application. The report evaluates past potential contamination and future pollution risks to both soil and groundwater.

5.5 Implications of the Variation on - Fugitive Emissions to Air

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 "Best Available Techniques" (see definition of "techniques" within the explanatory notes attached to the draft permit). 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 for its part has a number of regulatory instruments it can use to gain compliance should the operator fail to comply

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.

5.6 Implications of the Variation on - Fugitive Emissions to Water

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 in the permit by requiring the company to 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 rearing unit which shall be designed to be fit-for-purpose and meeting BAT.

As part of the review conclusions of the Site Condition Report by SEPA Water resources unit it was recommended that surface water monitoring remains ongoing at the two locations on the Barr Burn. Please refer to section 5.20 for more detail.

5.7 Implications of the Variation on – Odour

SEPA acknowledges that odour from intensive agriculture installations can give rise to complaints and to this end requires operators to undertake odour assessments and to formulate and implement Odour Management Plans to reduce the impact on the local environment.

SEPA has identified that the potential odour issues from the existing unit and the proposed new rearing unit are ammonia and general poultry smells, with secondary odours from the use of any chlorinated cleaning materials or disinfectants to clean the sheds. Conditions within the existing permit require the company to produce an Odour Management Plan detailing how odour issues will be resolved and the applicant must have regard to the BAT contained within Section 2.8 of SEPA's Standard Farming Installation Rules which deals with odour management.

The odour management plan is to be extended to cover the additional new rearing unit at Low Killantrae.

5.8 Implications of the Variation on – Management

There will be no change to overall site management as a result of the addition of the new rearing unit at Low Killantrae. Good site management is a requirement not only of the PPC Regulations but also the Food Safety Act 1990, regulated by the Food Standards Agency, and the Animal Welfare Act 2006. Agricultural installations are subject to a whole raft of regulatory controls requiring Operators to operate installations to a high standard both to ensure welfare of animals and to prevent materials entering the food chain.

Permit condition 2.1.5 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

5.9 Implications of the Variation on - Raw Materials

The increase in bird numbers will mean an increase in feed materials, bedding and disinfectant use. Annual use of these 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. The site report states that all chemicals brought on to site will be stored and "prepared" in a bunded area inside the central services area.

Agricultural Fuel Oil:

AFO (also known as red diesel) is stored within the bunded generator itself at the new rearing unit and there is no separate storage on site. The bunded generator will meet the requirements of the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended). Fuel is stored at the existing Elrig site and transferred to Low Killantrae in 20L Jerry cans.

Water:

Water is wholly from mains supply. (Scottish Water.) Supply is then lifted to 4No.IBC header tanks which hold water before supply to the stock.

Feed:

Feed will be supplied to site, pre-mixed, into 4 fully enclosed silos each fitted with cyclone particle containment and mitigation. Feed will then be transported into the feed systems within the units by augers. All feed deliveries to be supervised and any spillage of feed swept up immediately to prevent any surface or groundwater contamination. Feed specification will be prepared by feed company nutrition specialist and will be from UFAS accredited mills only. Feed protein levels will be tailored throughout the flock growth cycle to comply with flock needs and environmental standards. SEPA is satisfied that this meets the requirements of SFIR and BAT.

Litter:

Small covering applied at beginning of campaign which degrades slowly and topped up if necessary. Removed at end of 16 week campaign when pullets transferred as laying hens. Manure is mixed with original layering of wood shavings (litter)

5.10 Implications of the Variation on - Raw Materials Selection

Very similar raw material selection to the main Elrig units. 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.

5.11 Implications of the Variation on - Waste Minimisation Requirements

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 existing permit has conditions requiring the operator to minimise waste and where possible develop and implement recycling or recovery strategies. These conditions will still apply after the substantial variation.

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.

5.12 Implications of the Variation on - Water Use

Due to the proposed increase in bird numbers there will undoubtedly be an increase in water consumption.

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.

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 (as outlined in the SFIR and BAT standards). Low water pressure is adopted to minimise leakage should there be an issue with a nipple drinker.

5.13 Implications of the Variation on - Waste Handling

The types of waste generated at the new rearing unit shall not differ from those already produced on site. However, the addition bird places (although pullets and not layers) will see a corresponding increase in both bird mortalities and generation of manure.

Manure will be collected and removed by conventional manure belts to a storage skip housed in a separate building. It will then be stored off the permitted installation and applied to the wider agricultural land according to the farm's nutrient budget (non PPC). This separate activity will be regulated under GBR 18.

Dead stock will be removed daily into sealed bags and deposited in the refrigerator in the central services building before being transferred for incineration at the main Elrig unit.

5.14 Implications of the Variation on - Waste Recovery or Disposal

There will be no implication on methods of waste recovery or disposal due to the proposed variation.

5.15 Implications of the Variation on – Energy

The new rearing unit at Low Killantrae will undoubtedly increase energy demand at the site. Welfare of the birds largely dictate energy use but the new shed shall be built to BAT including insulation, lighting and ventilation.

The sheds will be heated and powered by mains electricity and 2 x wood chip biomass boilers. A standby generator will be available on site and will be maintained and routinely checked for emergency use only.

5.16 Implications of the Variation for - Accidents and their Consequences

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 Operators 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.

Incident Reporting is covered by Condition 2.12 of the Permit which requires the operator to produce an Incident Prevention and Mitigation Plan as *per* SFIR and BAT. This will not change as a result of the proposed substantial variation.

5.17 Implications of the Variation for – Noise

There will be no additional implications with respect to noise as a result of this variation.

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 the 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 issues that should arise and will be updated as stipulated in the permit.

The PPC Permit and SFIR recognise that noise can give rise to complaints; SEPA takes noise complaints from PPC Part A installations seriously and to this end requires the operator to undertake noise assessments and produce a Noise Management Plan to prevent or minimise the impact on the local environment.

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

5.18 Implications of the Variation for – Monitoring

Monitoring is required to assess operational conditions and environmental performance. Various permit conditions require the operator to carry out self-monitoring and regular maintenance checks to identify non-compliance.

SEPA Water Resources Specialists note that the submitted site layout plan only indicates that there will be one water monitoring point at the swale overflow point. **It is recommended that surface water monitoring remains ongoing at the two locations on the Barr Burn, particularly as there is no proposed soil or groundwater monitoring.**

5.19 Implications of the Variation for – Closure

Standard condition 2.14 of the current permit, requires the production of a Decommissioning Plan for the installation. Elrig Farm Site Closure and Decommissioning Plan was submitted with the original application outlining procedures to be followed in the event of cessation of production. This will be applicable to the new rearing unit at Low Killantrae and must be reviewed and where necessary updated to take account of any substantial change in the extent or nature of the permitted installation.

5.20 Implications of the Variation for - Site Condition Report (and where relevant the baseline report)

The new rearing unit at Low Killantrae is located on a new greenfield site and will have no implications on the existing baseline report for the main Elrig farm submitted on 1st March 2019.

SEPA has assessed as satisfactory the site report submitted with the substantial variation application for the new rearing unit at Low Killantrae. The report evaluates past potential contamination and future pollution risks to both soil and groundwater.

SEPA Water Resources Specialists note that the submitted site layout plan only indicates that there will be one water monitoring point at the swale overflow point. **Water Resources Unit recommend that surface monitoring at the two locations on the Barr Burn should continue. These should be undertaken at the frequency as stated in the existing permit (at least once every 5 years).**

5.21 Implications of the Variation for - Consideration of BAT

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 variation to benchmark farming activities. The variation 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

Justification:

In SCAIL the Realistic meteorological mode has been used due to the arrangement of multiple sources over two locations. This enables the relative actual position of each source and receptor to reflect the effect of the wind direction on dispersion of the ammonia emitted.

Screening initially looked at the total process contributions from the existing plus proposed new housing. River Bladnoch SAC, Dowalton Loch SSSI and Back Bay to Carghidown SSSI passed at the initial stage of screening.

NatureScot had been consulted earlier in the determination process and advised that Luce Bay and Sands SAC can be screened out due to distance to the designated features which are sensitive to air pollution; these features are located greater than 10km distant from any of the poultry houses. Designated features in the SAC which are within 10km of the poultry housing are not sensitive to nitrogen air pollution.

For the purposes of the regulatory impact assessment, the proposal to be evaluated is the variation of the permit, i.e. the new housing whose emissions are not included in the background data

Assessment – new sources only:

This considered the process contributions at Mochrum Lochs SAC and SSSI due to the emissions from the new pullet rearing shed at Low Killantrae plus sheds 10 and 11 at Elrig. Sheds 10 and 11 at Elrig were included in the existing permit, however the commissioning of these sheds was delayed therefore the emissions are not included in the background, which is based on data from 2018 – 2020.

Mochrum Lochs SAC - The process contributions due to the new emissions is less than 4% for ammonia, nutrient nitrogen deposition and acid deposition, which is below the screening threshold so screens out due to the small increment in pollutants. It is unlikely that the small process contribution would make a significant effect against the background exceedances.

Mochrum Lochs SSSI - The process contribution due to the new emissions is less than 4% for acid deposition, which is below the screening threshold so screens out due to the small increment in acidifying compounds.

The process contributions due to the new emissions for ammonia concentration and nutrient nitrogen deposition is 4% and 4.6% respectively, which is a marginal breach of the screening threshold. However, it is unlikely that the small process contribution would make a significant effect against the background exceedances, therefore on balance it is concluded that the emissions arising from the new housing is unlikely to have potential to damage the designated features of Mochrum Lochs SSSI.

It is SEPA's view that it is unlikely that a significant effect to European nature conservation sites or damage to the notified features of SSSIs will occur due to the proposed activity.

No further assessment is required.

Screening distance(s) used – 10km as per nature conservation procedure NCP-P-01

Officer: CO

7 ENVIRONMENTAL IMPACT ASSESSMENT AND COMAH

How has any relevant information obtained or conclusion arrived at pursuant to Articles 5, 6 and 7 of Council Directive 85/337/EEC on the assessment of the effects certain public and private projects on the environment been taken into account? **N/A**

How has any information contained within a safety report within the meaning of Regulation 7 (safety report) of the Control of Major Accident Hazards Regulations 1999 been taken into account? **N/A**

Officer: CO

8 DETAILS OF PERMIT

Do you propose placing any non standard conditions in the Permit? **No**

Do you propose making changes to existing text, tables or diagrams within the permit? **Yes**

Outline of change:

Text:

- 1.1.4.1 – Condition amended to add new poultry housing units at Low Killantrae
- 1.1.4.2 - Condition amended to include ventilation arrangements at Low Killantrae
- 1.1.5.4 – Condition amended to include slurry and manure handling at Low Killantrae
- 1.1.5.7 – Condition amended to include contaminated drainage treatment at Low Killantrae
- 3.3.4 – Condition amended to include water emission points from Low Killantrae

Tables:

- 3.1 – Waste Handling and Storage – Table amended to include waste handling at Low Killantrae
- 3.3.2 - Individual Source Emission to Air – Table amended to include emissions from Low Killantrae
- 3.3.3 – Emissions to water/sewer/land – Table amended to include emissions from Low Killantrae.
- 3.4 – Emission Limits and monitoring requirements - Table amended to include emissions from pullets.

Diagrams:

- 1.2.4 – New Low Killantrae site plan and site boundary
- 1.3.1 – New location plan to include Low Killantrae
- 1.3.2 – Site plan title amended to “Installation Boundary Elrig sites 1,2&3”
- 1.3.3 – New Installation boundary site plan added for Low Killantrae

9 EMISSION LIMIT VALUES OR EQUIVALENT TECHNICAL PARAMETERS/MEASURES

Are you are dealing with either a permit application, or a permit variation which would involve a review of existing ELVs or equivalent technical parameters? No

Emission limit values - Air

Substance: Generator exhaust (smoke)

Relevant emission benchmarks: Industry standard for visual monitoring of stacks

ELV: Ringelmann Shade 1 during start up. No visible smoke during operation.

Emission point: Generator Stack

Rationale: Included to prevent conflict with Condition 2.5.1 of the permit. The generator is only used in reserve situations when mains power is unavailable to ensure the health and safety of the livestock, operators and receptors and the regulatory compliance of the installation.

Substance: Biomass Boiler emissions (smoke)

Relevant emission benchmarks: Industry standard for visual monitoring of stacks

ELV: Ringelmann Shade 1 during start up. No visible smoke during operation.

Emission point: Biomass Boiler Stack

Rationale: Included to prevent conflict with Condition 2.5.1 of the permit. The biomass boiler is used to provide heat to the sheds and is fuelled by wood chips.

Substance: Ammonia

Relevant emission benchmarks: BAT AEL's

ELV:. N/A

Emission point: Poultry housing

Rationale: BAT Associated Emission Limits (AELs) are a requirement introduced in the IRPP BREF (February 2017). 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 Annual Emission Limits for ammonia. 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.

Emission limit values – Water

Substance: Treated surface water

Relevant emission benchmarks: The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended)

ELV: No visible pollution (see Condition 3.3.4 of the permit).

Emission point: Outfall from swale system

Rationale: Included to prevent conflict with Condition 2.5.1 of the permit and to comply with BAT (Rural Sustainable Drainage Systems – A practical design and build guide for Scotland’s farmers and landowners).

10 PEER REVIEW

Has the determination and draft permit been Peer Reviewed?

Name of Peer Reviewer and comments made: Alison Long, clarification of manure collection and housing type only. No comments.

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.

Officer: CO

12 REFERENCES AND GUIDANCE

Guidance Notes – Identify key references, guidance (BREF, UK Technical Guidance, etc) used in determination

Standard Farming Installation Rules (SEPA's general sector Guidance) Nature Conservation Procedure NCP-P-01 The assessment of potential impacts on designated sites of atmospheric emissions of ammonia from PPC intensive agriculture installations NCP-P-02 Sniffer ER26: Final Report on the update of the Simple Calculation of Atmospheric Impact Limits (SCAIL) (2014) BAT Reference Document (BREF) BAT Conclusions for the Intensive Rearing of Poultry or Pigs (2017) Rural Sustainable Drainage Systems – A practical design and build guide for Scotland's farmers and landowners (2016) SEPA Guidance on Consultation under PPC (IED-PG-01-04)

Draft for Consultation