



# CRESTWOOD ENVIRONMENTAL LTD

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## Shoby Poultry Partnership

### Best Available Techniques Assessment

Application for a Bespoke Environmental Permit

at

Fosseway 775, Thrussington, Melton Mowbray, LE7 4TG

Report Reference: CE-FW-2414-RP07-BAT-Final v2

Report Date: 15 October 2024

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# 1 INTRODUCTION

## 1.1 BACKGROUND

- 1.1.1 Crestwood Environmental Ltd ('Crestwood'), was commissioned by Shoby Poultry Partnership to undertake an Environmental Permit application for the expansion of the facility at Fosseway 775, Thrusington, Melton Mowbray, LE7 4TG ('the Site').
- 1.1.2 The Best Available Techniques (BAT) Assessment supports a permit application for the expansion of the Site's capacity from 39,999 chickens per year to 70, 000 chickens per year, which is categorised as an intensive farming operation.
- 1.1.3 There are six poultry houses, all houses headted LPG heating. Birds will be housed at day old and de-population at around 33 days for Pullets and 46 days for Cockerels.

## 1.2 Relevant Guidance Documents

- 1.2.1 The BAT Assessment has been completed with consideration of the following guidance:
- Best Available Techniques (BAT) conclusions for the intensive rearing or poultry or pigs <https://eippcb.jrc.ec.europa.eu/reference/intensive-rearing-poultry-or-pigs-0>
  - Sector Guidance Note EPR6.09 'How to comply with your environmental permit for intensive farming' <https://www.gov.uk/government/publications/intensive-farming-introduction-and-chapters>
  - EA Guidance Intensive farming risk assessment for your environmental permit - [www.gov.uk/](http://www.gov.uk/) - last updated 4 May 2018.

# 2 BAT Requirements

- 2.1.1 The BAT requirements set out in Chapter 5 BAT Conclusions and 5.3 BAT Conclusion for the intensive rearing of poultry (5.3.1.2 ammonia emissions for houses for broilers) are presented in Table 1.



**Table 1 BAT requirements (per Chapter 5 BAT Conclusions)**

BAT ref	Chapter No.	Requirement	Confirm in place or justification	Meets BAT
1	5.1.1	<p><b>Environmental management systems (EMS).</b></p> <p>In order to improve the overall environmental performance of farms, BAT is to implement and adhere to an environmental management system (EMS) that incorporates all of the features stated in Chapter 5.1.1 BAT 1</p> <p>Specifically for intensive poultry rearing, BAT is also to incorporate the following into the EMS</p> <ul style="list-style-type: none"> <li>• implementation of a noise (BAT 9)</li> <li>• odour management plan (BAT 12)</li> </ul>	<p>The Site will be operated in accordance with its Environmental Management System. An EMS has been prepared as part of the permit application (CE-FW-2414-RP02-EMS-Final).</p> <p>An odour and noise management plan is not considered applicable.</p> <p>BAT 9 and 12 is only applicable to cases where a noise and odour nuisance at sensitive receptors is expected and/or has been substantiated.</p> <p>There have been no known complaints to noise or odour. There are no sensitive receptors within 400m of the Site.</p>	Yes
2	5.1.2	<p><b>Good housekeeping:</b></p> <p>BAT uses the following techniques in order to prevent or reduce the environmental impact and improve overall performance:</p> <ul style="list-style-type: none"> <li>• Proper location of the plant/farm and spatial arrangements of the activities</li> <li>• Educate and train staff</li> <li>• Prepare an emergency plan for dealing with unexpected emissions and incidents such as pollution of water bodies</li> <li>• Regularly check, repair and maintain structures and equipment</li> <li>• Store dead animals in such a way as to prevent or reduce emissions</li> </ul>	<p>The Site will be operated in accordance with its Environmental Management System.</p>	Yes
3	5.1.3	<p><b>Nutritional management:</b></p> <p>To reduce total nitrogen excreted and consequently ammonia emissions while meeting the nutritional needs of the animals, BAT is to use a diet formulation and nutritional strategy which includes one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> <li>• Reduce the crude protein content by using a N-balanced diet based on the energy needs and digestible amino acids.</li> <li>• Multiphase feeding with a diet formulation adapted to the specific requirements of the production period.</li> <li>• Addition of controlled amounts of essential amino acids to a low crude protein diet.</li> <li>• Use of authorised feed additives which reduce the total nitrogen excreted.</li> </ul>	<p>The birds will be fed a minimum of three diets during their growth, gradually reducing levels of protein and phosphorus as bird age increases.</p> <p>The nutrient management plan will account for the samples within the manure to ensure organic nitrogen remains within the appropriate limits.</p> <p>Broilers: BAT-associated total nitrogen excreted (kg N excreted/animal place/year) <b>range 0.2-0.6</b></p>	Yes



BAT ref	Chapter No.	Requirement	Confirm in place or justification	Meets BAT
4	5.1.3	<p><b>Nutritional management:</b> In order to reduce the total phosphorus excreted, while meeting the nutritional needs of the animals, BAT is to use a diet formulation and a nutritional strategy which includes one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> <li>• Multiphase feeding with a diet formulation adapted to the specific requirements of the production period.</li> <li>• Use of authorised feed additives which reduce the total phosphorus excreted (e.g. phytase).</li> <li>• Use of highly digestible inorganic phosphates for the partial replacement of conventional sources of phosphorus in the feed.</li> </ul>	<p>The birds will be fed a minimum of three diets during their growth, gradually reducing levels of protein and phosphorus as bird age increases.</p> <p>Broilers: BAT-associated total phosphorus excreted (kg P<sub>2</sub>O<sub>5</sub> excreted/animal place/year) range <b>0.05-0.25</b></p>	Yes
5	5.1.4	<p><b>Efficient use of water:</b> To use water efficiently, a combination of techniques can be used:</p> <ul style="list-style-type: none"> <li>• Keep a record of water use</li> <li>• Detect and repair water leakages.</li> <li>• Use high-pressure cleaners for cleaning animal housing and equipment.</li> <li>• Select and use suitable equipment (e.g. nipple drinkers, round drinkers, water troughs) for the specific animal category while ensuring water availability (ad libitum).</li> <li>• Verify and (if necessary) adjust on a regular basis the calibration of the drinking water equipment.</li> <li>• Reuse uncontaminated rainwater as cleaning water. (may not be applicable to existing farms, due to high costs).</li> </ul>	<p>Daily records will be kept on water consumption, with daily inspections. Maintenance is planned to be carried out on all equipment during the farm turnaround including water lines. Unless urgent, then this will be carried out immediately.</p> <p>The buildings and equipment on site will be regularly inspected and checked for visual signs of leakage, corrosion and structural damage and correct operation.</p> <p>The housing and farm will be pressure washed during cleaning.</p> <p>Water will be via a nipple drinking system fitted with cups to reduce leakage and spills.</p>	Yes
6	5.1.5	<p><b>Emissions from waste water:</b> To reduce generation of waste water, a combination of techniques can be used:</p> <ul style="list-style-type: none"> <li>• Keep the fouled yard areas as small as possible</li> <li>• Minimise use of water</li> <li>• Segregate uncontaminated rainwater from waste water streams that require treatment (may not be applicable to existing farms).</li> </ul>	<p>Fouled yard area minimised, which is contained mostly within the buildings. Trailers are positioned at the entrance of each house, and litter is carefully placed within the trailer before being covered. This area will be kept small as possible for removing waste litter.</p> <p>Wash water from the buildings will be segregated from uncontaminated rainwater.</p> <p>Use of water for cleaning is minimised as far as possible, while using the amount required to ensure sanitary conditions</p>	Yes
7	5.1.5	<p><b>Emissions from waste water:</b> To reduce emissions to water from waste water, use one or combination of techniques:</p> <ul style="list-style-type: none"> <li>• Drain waste water to a dedicated container or to a slurry store.</li> </ul>	<p>Land spreading of waste water is not considered applicable due to limited availability of suitable land adjacent to the farm.</p> <p>Drainage onsite will lead to one discharge point and waste water will be contained within a tank that will be emptied.</p>	Yes



BAT ref	Chapter No.	Requirement	Confirm in place or justification	Meets BAT
		<ul style="list-style-type: none"> <li>Treat waste water</li> <li>Landspreading of waste water e.g. by using an irrigation system such as sprinkler, travelling irrigator, tanker, umbilical injector.</li> </ul>		
8	5.1.6	<p><b>Efficient use of energy</b></p> <p>In order to use energy efficiency, a use of a combination of techniques is required:</p> <ul style="list-style-type: none"> <li>High efficiency heating/cooling and ventilation systems</li> <li>Optimisation of heating/cooling and ventilation systems and management, especially where air cleaning systems are used.</li> <li>Insulation of the walls, floors and/or ceilings of animal housing.</li> <li>Use of energy-efficient lighting</li> <li>Use of heat exchangers. One of the following systems may be used: 1. air-air; 2. air-water; 3. air-ground.</li> <li>Use of heat pumps for heat recovery.</li> <li>Heat recovery with heated and cooled littered floor (combideck system).</li> <li>Apply natural ventilation.</li> </ul>	<p>All houses will have LPG heating. Only day before bird arrival the houses will be pre-warmed by LPG. Heating is not used when houses are not occupied (until day before arrival) to reduce energy usage.</p> <p>Temperature is computer controlled and monitors on a daily basis to achieve level of 21° C post brooding, ensures optimisation of heating.</p> <p>Ventilation will be controlled by a negative pressure system using high velocity roof extraction fans in the new housing and tunnel/combi ventilation in the existing.</p> <p>LED lighting is used within the animal housing, considered to be highly energy efficient.</p>	Yes
9	5.1.7	<p><b>Noise emissions</b></p> <p>To prevent or where not practicable, to reduce noise emissions, BAT is to set up and implement a noise management plan, as part of the environmental management system (see BAT 1), that includes the following elements:</p> <ul style="list-style-type: none"> <li>a protocol containing appropriate actions and timelines;</li> <li>a protocol for conducting noise monitoring;</li> <li>a protocol for response to identified noise events;</li> <li>a noise reduction programme designed to e.g. identify the source(s), to monitor noise emissions, to characterise the contributions of the sources and to implement elimination and/or reduction measures;</li> <li>a review of historical noise incidents and remedies and the dissemination of noise incident knowledge.</li> </ul>	<p>A noise management plan is not considered applicable.</p> <p>BAT 9 only applicable to cases where a noise nuisance at sensitive receptors is expected and/or has been substantiated.</p> <p>There have been no known complaints to noise. There are no sensitive receptors within 400m of the Site.</p>	N/A
10	5.1.7	<p><b>Noise emissions</b></p> <p>To prevent, or where that is not practicable, to reduce noise emissions, BAT is to use one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> <li>Ensure adequate distances between the plant/farm and the sensitive receptors.</li> <li>Equipment location.</li> </ul>	<p>There are no sensitive receptors within 400m of the Site.</p> <p>Vehicles will be well maintained and are designed so that noise during feed transfer is minimised. Vehicles to be well maintained and driven around the site slowly. Engines to be switched off when not in use.</p> <p>Efficient extractor fans used, maintained in good condition to avoid excessive noise.</p>	Yes



BAT ref	Chapter No.	Requirement	Confirm in place or justification	Meets BAT
		<ul style="list-style-type: none"> <li>Operational measures.</li> <li>Low-noise equipment.</li> <li>Noise-control equipment.</li> <li>Noise abatement</li> </ul>		
11	5.1.8	<p><b>Dust emissions</b></p> <p>To reduce dust emissions from each animal house, BAT is to use one or a combination of the techniques given below.</p> <ul style="list-style-type: none"> <li>Reduce dust generation inside livestock buildings. For this purpose, a combination of the following techniques may be used:               <ol style="list-style-type: none"> <li>Use coarser litter material (e.g. long straw or wood shavings rather than chopped straw);</li> <li>Apply fresh litter using a low-dust littering technique (e.g. by hand);</li> <li>Apply ad libitum feeding;</li> <li>Use moist feed, pelleted feed or add oily raw materials or binders in dry feed systems;</li> <li>Equip dry feed stores which are filled pneumatically with dust separators;</li> <li>Design and operate the ventilation system with low air speed within the house.</li> </ol> </li> <li>Reduce dust concentration inside housing by applying one of the following techniques:               <ol style="list-style-type: none"> <li>Water fogging;</li> <li>Oil spraying;</li> <li>Ionisation.</li> </ol> </li> <li>Treatment of exhaust air by an air cleaning system, such as:               <ol style="list-style-type: none"> <li>Water trap</li> <li>Dry filter;</li> <li>Water scrubber;</li> <li>Wet acid scrubber;</li> <li>Bioscrubber (or biotrickling filter);</li> <li>Two-stage or three-stage air cleaning system;</li> <li>Biofilter</li> </ol> </li> </ul>	<p>Floors will be covered bulk wood shavings, considered to produce less dust than wheat, barely or rye straw.</p> <p>Humidity will be kept to 55-60% for health of the birds.</p> <p>Pelleted feed will be used as it is considered to withstand handling without excessive breakage, and not creating significant dust.</p> <p>The feed stores will be filled from a lorry blown through an intake pipe into the stores at the end of each house.</p> <p>Feed will be distributed using an auger feed system into the houses.</p> <p>The housing system implements a ventilation system, which will reduce dust within the house.</p> <p>The operator controls dust at source rather than emission controls.</p> <p>Water fogging and oil spraying is no considered appropriate due to day-old chis and wet litter leading to animal welfare issues and the requirements to maintain dry litter to reduce ammonia emissions</p>	Yes
12	5.1.9	<p><b>Odour emissions</b></p> <p>To prevent, or where that is not practicable, to reduce odour emissions from a farm, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes the following</p>	<p>An odour management plan is not considered applicable.</p> <p>BAT 12 only applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.</p> <p>There have been no known complaints to odour. There are no sensitive receptors within 400m of the Site.</p>	N/A





BAT ref	Chapter No.	Requirement	Confirm in place or justification	Meets BAT
		<p>elements:</p> <ul style="list-style-type: none"> <li>• a protocol containing appropriate actions and timelines;</li> <li>• a protocol for conducting odour monitoring;</li> <li>• a protocol for response to identified odour nuisance;</li> <li>• an odour prevention and elimination programme designed to e.g. identify the source(s), to monitor odour emissions (see BAT 26), to characterise the contributions of the sources and to implement elimination and/or reduction measures;</li> <li>• a review of historical odour incidents and remedies and the dissemination of odour incident knowledge.</li> </ul>		
13	5.1.19	<p><b>Odour emissions</b> To prevent or, where that is not practicable, to reduce odour emissions and/or odour impact from a farm, BAT is to use a combination of the techniques:</p> <ul style="list-style-type: none"> <li>• Ensure adequate distances between the farm/plant and the sensitive receptors.</li> <li>• Use a housing system which implements one or a combination of the following principles: <ul style="list-style-type: none"> <li>- keeping the animals and the surfaces dry and clean (e.g. avoid feed spillages, avoid dung in lying areas of partly slatted floors); -</li> <li>- reducing the emitting surface of manure (e.g. use metal or plastic slats, channels with a reduced exposed manure surface);</li> <li>- removing manure frequently to an external (covered) manure store; -</li> <li>- reducing the temperature of the manure (e.g. by slurry cooling) and of the indoor environment;</li> <li>- decreasing the air flow and velocity over the manure surface;</li> <li>- keeping the litter dry and under aerobic conditions in litter-based systems.</li> </ul> </li> <li>• Optimise the discharge conditions of exhaust air from the animal house by using one or a combination of the following techniques: <ul style="list-style-type: none"> <li>- increasing the outlet height (e.g. exhaust air above roof level, stacks, divert air exhaust through the ridge instead of through the low part of the walls);</li> <li>- increasing the vertical outlet ventilation velocity;</li> <li>- effective placement of external barriers to create turbulence in the outgoing air flow (e.g. vegetation);</li> <li>- adding deflector covers in exhaust apertures located in low</li> </ul> </li> </ul>	<p>No sensitive receptors with 400m of the Site. The housing system will implement a ventilation system which will be regularly adjusted according to the age and requirements of the flock. The ventilation system will be designed to efficiently remove moisture from the house. Standby generator used when electricity supply is disrupted and is critical for bird welfare – ventilation, heating, monitoring and pumping drinking water etc., will prevent increasing odorous emissions from new houses reliant on fan ventilation. Temperature and humidity will be computer controlled and monitored daily to achieve a target level of 21° C post brooding and a relative humidity of 55-60%, this should achieve litter with a dry matter content. Litter will be kept dry additionally by using a nipple drinking system fitted with cups to reduce leakage and spills.  Trees and hedges will trap dust particles, and act as an external barrier reducing odour.  Litter will be removed directly to trailers positioned close to the entrance of each house. When trailer is full it is covered and removed. Most of the litter is sent for land spreading under the control of a separate farming business.  There is no storage of used litter or manure on-site.</p>	Yes



BAT ref	Chapter No.	Requirement	Confirm in place or justification	Meets BAT
		<p>parts of walls in order to divert exhaust air towards the ground;</p> <ul style="list-style-type: none"> <li>- dispersing the exhaust air at the housing side which faces away from the sensitive receptor;</li> <li>- aligning the ridge axis of a naturally ventilated building transversally to the prevailing wind direction</li> </ul> <ul style="list-style-type: none"> <li>• Use an air cleaning system, such as: 1. Bioscrubber (or biotrickling filter); 2. Biofilter; 3. Two-stage or three-stage air cleaning system.</li> <li>• Use one or a combination of the following techniques for storage of manure: <ul style="list-style-type: none"> <li>- Cover slurry or solid manure during storage;</li> <li>- Locate the store taking into account the general wind direction and/or adopt measures to reduce wind speed around and above the store (e.g. trees, natural barriers);</li> <li>- Minimise stirring of slurry.</li> </ul> </li> <li>• Process manure with one of the following techniques in order to minimise odour emissions during (or prior to) landspreading: <ul style="list-style-type: none"> <li>- Aerobic digestion (aeration) of slurry;</li> <li>- Compost solid manure;</li> <li>- Anaerobic digestion.</li> </ul> </li> <li>• Use one or a combination of the following techniques for manure landspreading: <ul style="list-style-type: none"> <li>- Band spreader, shallow injector or deep injector for slurry landspreading;</li> <li>- Incorporate manure as soon as possible.</li> </ul> </li> </ul>		
14	5.1.10	<p><b>Emissions from solid manure storage</b> To reduce ammonia emissions to air from the storage of solid manure, BAT is to use one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> <li>• Reduce the ratio between the emitting surface area and the volume of the solid manure heap.</li> <li>• Cover solid manure heaps.</li> <li>• Store dried solid manure in a barn.</li> </ul>	<p>Litter will be removed directly to trailers positioned close to the entrance of each house. When trailer is full it is covered and removed.</p> <p>The litter will be sent for land spreading under the control of a separate farming business.</p> <p>There will be no storage of used litter on-site.</p>	Yes
15-22	5.1.11 5.1.12 5.1.13 5.1.14	<p><b>Emissions from solid manure storage</b> <b>Emissions from slurry storage</b> <b>On farm processing of manure</b> <b>Manure landspreading</b></p>	As above – not considered applicable.	N/A



BAT ref	Chapter No.	Requirement	Confirm in place or justification	Meets BAT
23	5.1.14	<p><b>Emissions from the whole production process</b></p> <p>To reduce ammonia emissions from the whole production process for the rearing of pigs (including sows) or poultry, BAT is to estimate or calculate the reduction of ammonia emissions from the whole production process using the BAT implemented on the farm.</p>	<p>Ammonia Emission Reduction Plan: the following demonstrates BAT is being met and an ammonia emission reduction plan is not required.</p> <p><b>Diets:</b> The birds will be fed a minimum of three diets during their growth, gradually reducing levels of protein and phosphorus as bird age increases. The nutrient management plan will account for the samples within the manure to ensure organic nitrogen remains within the appropriate limits.</p> <p><b>Housing:</b> high-velocity roof ventilation, in all but one shed (with natural ventilation). Non-leaking nipple drinkers. The estimated ammonia emission reduction efficiency between 20-30%.</p> <p><b>Manure/Slurry storage:</b> Not stored onsite.</p>	Yes
24	5.1.15	<p><b>Monitoring of emissions and process parameters</b></p> <p>BAT is to monitor the total nitrogen and total phosphorus excreted in manure using one of the following techniques:</p> <ul style="list-style-type: none"> <li>• Calculation by using a mass balance of nitrogen and phosphorus based on the feed intake, crude protein content of the diet, total phosphorus and animal performance.</li> <li>• Estimation by using manure analysis for total nitrogen and total phosphorus content.</li> </ul> <p>This is carried out once every year.</p>	<p>Estimation by using manure analysis for total nitrogen and total phosphorus content. Samples will be taken from manure and sent for NPK analysis.</p>	Yes
25	5.1.15	<p><b>Monitoring of emissions and process parameters</b></p> <p>BAT is to monitor ammonia emissions to air using one of the following techniques with at least the frequency given below.</p> <ul style="list-style-type: none"> <li>• Estimation by using a mass balance based on the excretion and the total (or total ammoniacal) nitrogen present at each manure management stage</li> <li>• Calculation by measuring the ammonia concentration and the ventilation rate using ISO, national or international standard methods or other methods ensuring data of an equivalent scientific quality.</li> <li>• Estimation by using emission factors.</li> </ul>	<p>Ammonia emissions will be reported annually by multiplying the ammonia emissions factor for broilers by the number of birds on site.</p>	Yes
26	5.1.15	<p><b>Monitoring of emissions and process parameters</b></p> <p>BAT is to periodically monitor odour emissions to air. Odour emissions can be monitored by using: -</p> <ul style="list-style-type: none"> <li>• EN standards (e.g. by using dynamic olfactometry according to EN 13725 in order to determine odour concentration). -</li> <li>• When applying alternative methods for which no EN</li> </ul>	<p>Only considered applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.</p> <p>There have been no known complaints to odour. There are no sensitive receptors within 400m of the Site.</p>	N/A



BAT ref	Chapter No.	Requirement	Confirm in place or justification	Meets BAT
		standards are available (e.g. Measurement/estimation of odour exposure, estimation of odour impact), ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality can be used.		
27	5.1.15	<p><b>Monitoring of emissions and process parameters</b></p> <p>BAT is to monitor dust emissions from each animal house using one of the following techniques at least once every year:</p> <ul style="list-style-type: none"> <li>• Calculation by measuring the dust concentration and the ventilation rate using EN standard methods or other methods (ISO, national or international) ensuring data of an equivalent scientific quality.</li> <li>• Estimation by using emission factors.</li> </ul>	Multiply the dust emissions factor for broilers by the number of birds on site.	Yes
28	5.1.15	<p><b>Monitoring of emissions and process parameters</b></p> <p>BAT is to monitor, ammonia, dust and/or odour emissions from each animal house equipped with an air cleaning system by using all of the following techniques:</p> <ul style="list-style-type: none"> <li>• Verification of the air cleaning system performance by measuring ammonia, odour and/or dust under practical farm conditions and according to a prescribed measurement protocol and using EN standard methods or other methods (ISO, national or international) ensuring data of an equivalent scientific quality (once).</li> <li>• Control of the effective function of the air cleaning system (e.g. by continuously recording operational parameters or using alarm systems) (daily).</li> </ul>	<p>Daily inspections are carried out on the farm, including ventilation fans.</p> <p>Normal operations are within accordance to the Environmental Management System.</p> <p>No air cleaning systems are installed at the installation.</p>	n/a
29	5.1.15	<p><b>Monitoring of emissions and process parameters</b></p> <p>BAT is to monitor the following process parameters at least once every year:</p> <ul style="list-style-type: none"> <li>• Water consumption</li> <li>• Electric energy consumption</li> <li>• Fuel consumption</li> <li>• Number of incoming and outgoing animals (including births &amp; deaths when relevant)</li> <li>• Feed consumption</li> <li>• Manure generation</li> </ul>	The Site will be operated in accordance with its Environmental Management System.	Yes
5.3 BAT Conclusions for the intensive rearing of poultry				
32	5.3.1.2	<p><b>Ammonia emissions from houses for broilers</b></p> <p>To reduce ammonia emissions to air from each house for broilers,</p>	Ventilation will be controlled by a negative pressure system using high velocity roof extraction fans in the new housing and tunnel/ combi ventilation in	Yes



BAT ref	Chapter No.	Requirement	Confirm in place or justification	Meets BAT
		<p>BAT is to use one or a combination of the techniques given below.</p> <ul style="list-style-type: none"><li>• Forced ventilation and a non-leaking drinking system (in case of solid floor with deep litter).</li><li>• Forced drying system of litter using indoor air (in case of solid floor with deep litter).</li><li>• Natural ventilation, equipped with a nonleaking drinking system (in case of solid floor with deep litter)</li><li>• Litter on manure belt and forced air drying (in case of tiered floor systems).</li><li>• Heated and cooled littered floor (in case of combideck systems)</li><li>• Use of an air cleaning system, such as:<ol style="list-style-type: none"><li>1. Wet acid scrubber;</li><li>2. Two-stage or three-stage air cleaning system;</li><li>3. Bioscrubber (or biotrickling filter).</li></ol></li></ul>	<p>existing. Water is via a nipple drinking system fitted with cups to reduce leakage and spills.</p> <p>The BAT will be complied with is 0.08 kg NH<sub>3</sub>/animal place/year. The applicant will meet this emission factor for broilers is 0.034 kg NH<sub>3</sub>/animal place/year.</p> <p>The installation does not include air abatement treatment facility, hence the standard emission factor complies with the BAT-AEL</p>	



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