

**Supporting Information for Bespoke Environmental Permit application for  
EPR/YP3805LA/A001 Lingar Hill Farm Poultry Unit, Watton Road, Shropham,  
Attleborough, NR17 1EE**

**June 2021**

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### **B3.3c SUMMARY OF ENVIRONMENT MANAGEMENT SYSTEM**

1. EMS is in accordance with the Environment Agency (2010); EPR 6.09 Sector Guidance Note; How to comply with your environmental permit for intensive farming; Version 2 and the Best Available Techniques (BAT) Reference Document for the Intensive Rearing of Poultry or Pigs; 2017.

2. Normal operations

Daily records will be kept on all aspects of the farm's operation including:

- Water consumption
- Feed consumption and deliveries
- Bird mortalities
- Poultry house temperature and humidity
- Waste collections.

Daily inspection by staff around the site to ensure equipment is operating correctly.

3. Maintenance schedule and records

- A programme of planned preventive maintenance will be carried out on all plant and equipment including the ventilation fans, feeding and water systems.
- Inspection and maintenance schedules based on manufacturer's recommendations.
- Back-up generator will be tested weekly to ensure it is working properly.
- Buildings and equipment on site will be regularly inspected and checked for visual signs of leakage, corrosion, structural damage, security, and correct operation.
- A record of all faults and maintenance work and inspections will be kept in the site office.
- No incinerator.

4. Incidents and abnormal operations

Measures will be in place to identify incidents and abnormal operations. Staff will be trained to be able to detect abnormal operation and investigate its causes and get back to normal operation and ensure the problem does not reoccur.

5. Complaint system

Complaints will be logged and referred to the Site Manager for investigation and follow-up action. A record will be kept of any remedial action to prevent or minimise the causes and we will respond to concerns raised by the local community as appropriate.

6. Accidents

Site has an accident management plan which will be implemented if an accident occurs. Events or failures that could damage the environment have been identified using the H1 environmental risk assessment for accidents. The format of the site Accident Management Plan is in accordance with the Environment Agency's accident prevention and management plan at <https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#accident-prevention-and-management-plan>.

## 7. Training

- All staff are suitably qualified to work at the installation.
- All staff will receive formal training from both the Site Manager and an external training provider.
- All staff will receive formal training on health and safety, the accident management plan and will be trained about the requirements of the environmental permit and pollution prevention.
- New staff will be mentored as part of their on-the-job training.
- Staff and contractors will have defined roles.
- Training and instruction of staff and contractors will be recorded in the training plan.

## 8. Site security

- Gates and poultry houses will be securely locked at night.
- Fuel oil tanks and LPG tanks will be secure and locked.
- There is no public footpath through any part of the site.

## 9. Site closure plan

A site closure plan will be created and reviewed in pursuance of any conditions in the Permit or inspection scheme. Such a plan will include removal of any potentially polluting substances and decommissioning and removing equipment, plant, buildings, hard standing and underground structures.

## 10. Certification

The installation will be operated in accordance with a poultry assurance certification scheme including the EMS.

## 11. Climate change risk assessment

Planned duration of operation will be more than 5 years, so a climate change risk assessment has been provided for permit application in the H1 Environmental risk assessment & climate change risk assessment. Checked for the current Anglian River basin district risk assessment worksheet available on the government website at <https://www.gov.uk/guidance/adapting-to-climate-change-risk-assessment-for-your-environmental-permit>

### **B5.5c NON-TECHNICAL SUMMARY**

Lingar Hill Farm is 1.91ha located in a rural setting area approx. 1.5km southwest of centre of the village of Shropham in Norfolk. The Installation is approximately centred on National Grid Reference TL 97179 92241.

The installation comprises three poultry houses with a combined capacity for 89,895 places for broiler chickens. Incubated eggs and day-old chicks will be brought into the houses from a hatchery and reared up to around 31 days of age, then a quarter will be removed or 'thinned', and the remainder reared up to around 38 days of age, all transported to a local abattoir. There would be approximately 7.6 flocks per annum, allowing for approx. 10 days washing-out in between flocks.

Site currently has two poultry houses and construction of a third will increase capacity in excess of the 40,000 places threshold in the regulations. Houses designed and constructed to modern specifications in approx. 2003 – concrete floors poured over a continuous damp proof membrane, concrete block walls and insulated walls and roofs with dark brown steel cladding. Third house will be larger with steel clear span portal construction and concrete panel walls.

All poultry houses are ventilated with side inlets and extraction fans on the roof with emission points higher than 5.5 metres above ground level and an efflux velocity greater than 7 metres per second.

All houses have gable end fans, although these are operated infrequently to maintain temperature, typically in the summer months. Ventilation is computer controlled to remove moisture under all weather and seasonal conditions while meeting the physiological needs of the chickens.

Dirty and surface water drainage will be separated to prevent pollution in any watercourse, underlying geology, and groundwater. Clean roof-water and runoff from the open concrete apron via stone-filled French drains with perforated pipes and solid pipes into the offsite ditch in the southern corner of the site identified as a tributary of the River Thet. Some clean water will infiltrate into the ground via perforated pipes in the French drains. Clean runoff the open concrete apron (excluding during periods for litter removal and washing-out) will be channelled into a catch-pit and via a diverter into solid pipes into the offsite ditch.

The concrete apron will become dirty when the litter is being removed and the houses washed out. Dirty water will be channelled with kerbing into the catch pits and via a diverter valve into a package underground concrete encased dirty water tank.

Nipple drinking systems with cups will be installed to provide chickens drinking water without spillages and keep litter dry. The houses will be heated with liquid petroleum gas (LPG) heaters alone.

Mortalities will be removed daily and stored in secure containers to minimise odour and flies, for removal under the Fallen Stock Scheme. At the end of rearing periods the houses

will be depopulated, and the litter removed. The houses and equipment will be pressure washed, disinfected, and dried, before restocking. The litter will be exported offsite in covered trailers for spreading on land to confer agricultural benefit or supplied as fuel to a local power station.

Storing feedstuffs in package feed delivery equipment, control rooms, stores and storing mains water, liquid petroleum gas for heating, diesel in a package back-up generator, and dirty water in a package underground tank are all directly associated activities.

The land surrounding the site is predominantly agricultural with some dwelling houses within 400 metres.

There are two European sites within 5km screening distance of the installation including Norfolk Valley Fens Special Areas of Conservation (SAC), and Breckland Special Protection Area (SPA). In addition, there is one site of Special Scientific Interest (SSSI) within 5km of the installation, and an Ancient Woodland (AW) within 2km. The site screened out as not having been required to provide detailed ammonia modelling.

## **B8.8a TECHNICAL STANDARDS**

1. Checked operation of the 3No. houses for rearing poultry, ancillary buildings and drainage and associated structures will be in accordance with the Environment Agency (2010); EPR 6.09 Sector Guidance Note; How to comply with your environmental permit for intensive farming; Version 2 and the Best Available Techniques (BAT) Reference Document for the Intensive Rearing of Poultry or Pigs; 2017.
2. No necessary improvements have been identified to meet compliance requirements.

### **Summary of main measures used to control emissions from the poultry houses**

3. Selection and use of feed

Operator will be able to use a nutritional strategy to reduce levels of nitrogen excreted and consequently, ammonia and phosphorous excretion while meeting the nutritional needs of the chickens.

Package feed delivery equipment - storage silos, augers, pipes, and feeders, etc will be designed to accommodate the required feeding regime for rearing broiler chickens using pan feeders.

4. Housing design and management

#### (a) Housing

Poultry houses designed and constructed to modern specifications in approx. 2003 – concrete floors poured over a continuous damp proof membrane, concrete block walls and insulated walls and roofs with dark brown steel cladding. Third house will be larger with steel clear span portal construction and concrete panel walls. Walls and roofs fully insulated with a U-Value of approximately 0.4 W/m<sup>2</sup>/°C to reduce condensation and heat loss.

#### (b) Litter

Litter will be kept loose and friable and regularly inspected to ensure it does not become excessively wet or dry and steps taken to rectify any changes to the quality of the litter.

#### (c) Temperature

Temperature in the houses will meet the health and welfare needs for the age and number of chickens. Liquid petroleum gas heaters will be regularly spaced in the houses to prevent cold spots and extremes of temperature. Extraction fans will be fitted with back draught shutters to prevent draughts and unnecessary heat loss. Houses will be accessed via a control room/vestibule area, which prevents draughts.

#### (d) Ventilation

Package computer-controlled ventilation systems will be installed to control ventilation rates, so they are appropriate to the age, weight, and health and welfare needs of the chickens:

- Operated to achieve optimum humidity levels for the stage of production in all weather and seasonal conditions.

- Control of minimum ventilation rates planned to avoid build-up of moisture.
- Houses will be managed to maintain litter as dry and friable as possible.
- Dust controlled through the management of litter and air quality.
- High velocity ventilation (vents greater than 5.5 metres high, fan efflux velocity greater than 7m/s) and uncapped outlets on the ridge of the roofs will avoid dust deposition on the roofs and contamination of rainwater runoff.
- Uncontaminated runoff water from roofs and open concrete apron (excluding during periods of depopulating and washing out) will be conveyed into an offsite ditch.

(e) General management

In accordance with the management system at the farm, the buildings and equipment will be regularly inspected and well maintained. The floors and walls of the houses will be kept clean.

(f) Livestock numbers and movements

A system will be in place to record the number of bird places and bird movements on and off the site. These records will be available for inspection.

(g) Slurry spreading and manure management planning – off site activity

- Litter will not be stored at the installation.
- Litter will not be spread on land belonging to the operator.
- Litter will be exported from the installation. Records will be kept of the quantities and the date of transfer, for example to a power station for recovery or third party for spreading on land and the names and addresses of the receiving farms.
- The receiver of the litter will confirm the litter is spread to land in accordance with the Code of Good Agricultural Practise or that the spreading will be in accordance with a manure management plan for the receiving land.

(h) Fugitive emissions

Appropriate measures for preventing and minimising fugitive emissions will be in place with provisions for:

- Buildings and equipment will be well maintained and kept in good repair
- Areas around buildings will be kept free from build-up of litter and spilt feed
- Drainage from the poultry houses and water from cleaning out will be collected in a package underground storage tank shown on the drainage plan
- Diverter valve shown on the drainage plan will be used during wash down periods to prevent the contamination of surface water systems and to divert the wash water into the dirty water tank. Clean drainage systems will not be contaminated.
- Drainage from yards contaminated by litter or wash water will be collected in the dirty water tank.
- The dirty water collection systems and package storage tank will be designed to deal with the volumes of wash water generated and manufactured to conform to the specification in SGN EPR6.09. Footbaths will be managed so that they do not overflow and spent disinfectants will be emptied into the dirty water tank.
- Wheel washings will be prevented from entering into surface or groundwater.

(i) Dust

The H1 Environmental Risk Assessment submitted with application EPR/YP3805LA/A001 shows dust sources have been identified as having potentially moderate and minor significance. There are sensitive receptors within 100m so created a Dust and Bio-aerosol Management Plan with mitigation and management measures in accordance with SGN EPR6.09:

- Poultry feed will be stored in package feed silos with augers and pipes and protected from collision damage by careful siting relative to traffic flows – in between the poultry houses, or with measures such as provision of kerbs or other markers to stop reversing vehicles or use of barriers in more vulnerable locations.
- Feed will be delivered directly from suppliers and blown directly into silos.
- Feed will be delivered into the houses by package augers and pipes.
- No milling or mixing of feed will take place at the farm.
- Used litter will not be stored on the site.

(j) Carcase management

Dead chickens will be disposed of in accordance with Animal By-Products Regulations, stored in secure, covered containers and frequently collected by an approved transporter under the National Fallen Stock Scheme.

(k) Flies

Appropriate actions will be implemented to prevent, and control flies should problems occur.

(l) Measures for bunding and containment

i. Agricultural fuel oil and other chemical storage

A package back-up generator with integrally bunded fuel tanks will be installed and will meet the requirements of the Water Resources (Control of Pollution)(Silage, Slurry and Agricultural Fuel Oil) Regulations 2010 (SSAFO Regulations). The generator will be regularly inspected.

Pesticides and veterinary medicines will be kept in stores that are resistant to fire, dry, frost-free, and secure against unauthorised access and capable of retaining any spillage.

ii. Feedstuffs

Poultry feedstuffs will be stored in package feed silos with augers, pipes with careful siting relative to traffic flows – in between the houses, or with measures such as provision of kerbs or other markers to stop reversing vehicles or use of barriers in more vulnerable locations.

(m) Odour

The H1 Environmental Risk Assessment submitted with application EPR/YP3805LA/A001 shows odour sources have been identified as having potentially moderate and minor significance. There are sensitive receptors within 400m, so created an Odour Management Plan with mitigation and management measures in accordance with SGN EPR6.09.



(n) Noise and vibrations

The H1 Environmental Impact Assessment submitted with application EPR/YP3805LA/A001 shows noise sources have been identified as having potentially moderate significance. There are sensitive receptors within 400m, so created a Noise Management Plan with mitigation and management measures in accordance with SGN EPR6.09.

**B8.8a contd. Review of best available techniques (BAT) to control emissions from houses for rearing poultry intensively**

BAT	Description	How is the site demonstrating compliance
BAT 1	<i>In order to improve the overall performance of farms, BAT is to implement and adhere to an environmental management system (EMS) that incorporates all of the following features [in the BAT conclusions document].</i>	<p>Checked operators will be holding a written EMS comprising a suite of documents to help identify and minimise the risk of pollution. This is also a general requirement condition in the permit and includes:</p> <ul style="list-style-type: none"> <li>• Commitment of the management, including senior management</li> <li>• Environmental policy that includes the continuous improvement of environmental performance</li> <li>• Planning and establishing necessary procedures including the H1 Environmental Risk Assessment, and maintenance and accident management plans</li> <li>• Checking performance and taking corrective action</li> <li>• Review of the EMS</li> <li>• Implementing noise and odour management plans.</li> </ul>
BAT 2	<i>In order to prevent or reduce the environmental impact and overall performance, BAT is to use all the techniques given [in the BAT conclusions document].</i>	<p>Checked operators will be using most of the BAT:</p> <ul style="list-style-type: none"> <li>• Proper location in order to ensure adequate distances from sensitive receptors is not wholly unavoidable. Owner is developing land already owned and the poultry houses will be downwind of sensitive receptors most of the time.</li> <li>• Educating and training staff – Operators and stockmen have formal qualifications.</li> <li>• Prepared an emergency plan for dealing with unexpected emissions and incidents such as pollution of water bodies – including a drainage plan, H1 Environmental Risk Assessment, and equipment for dealing with a pollution incident for example a diverter valve, spill kit equipment, etc..</li> <li>• Regularly checking, repairing, and maintaining structures and equipment such as water and feed supply systems, ventilation systems and temperature sensors, silos and transport equipment, cleanliness of the farm and pest management.</li> <li>• Storing dead animals in such a way as to prevent or reduce emissions.</li> </ul>

BAT 3	<p><i>In order 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 [in the BAT conclusions document].</i></p>	<p>Operators will be able to achieve the lower end of the range of 0.2-0.6 kg N excreted/broiler place per year. The BAT Reference Document states the lower end of the range can be achieved by using a combination of techniques. Checked operators will be using all of the BAT 3 techniques described:-</p> <ul style="list-style-type: none"> <li>• Reducing crude protein content using a N-balanced diet based on the energy needs and digestible amino acids – flaked soya bean will be added into the feedstuffs during milling to increase crude protein and supplement otherwise low natural levels in wheat grains, especially in first diets. The percentage of flaked soya will be reduced as the chickens grow.</li> <li>• Multiphase feeding with a diet formulation adapted to the specific requirements of the production period – 4 separate diets will be provided which contain an increasingly lower percentage of crude protein as the chickens grow .</li> <li>• Addition of controlled amounts of essential amino acids to a low crude protein diet – amino acid analogues will be added into all of the feedstuffs during milling, including lysine, methionine, threonine, and valine to supplement otherwise low natural levels in wheat grains.</li> <li>• Use of authorised feed additives which reduce total nitrogen excreted, specifically xylanase enzyme will be added into all of the feedstuffs during milling, for breaking down macro-molecules and antinutritional factors such as non-starch polysaccharides for example cellulose in wheat grain into absorbable nutrients in feedstuffs.</li> </ul>
BAT 4	<p><i>In order to reduce total phosphorous excreted 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 [in the BAT conclusions document].</i></p>	<p>Operators will be able to achieve the lower end of the range for of 0.05-0.25 kg P<sub>2</sub>O<sub>5</sub> excreted/broiler place per year. The BAT Reference Document states the lower end of the range can be achieved by using a combination of techniques. Checked the operators will be using all the BAT 4 techniques described:-</p> <ul style="list-style-type: none"> <li>• Multiphase feeding with a diet formulation adapted to the specific requirements of the production period – 4 separate diets will be provided which contain an increasingly lower percentage of phosphorous.</li> <li>• Use of authorised feed additives which reduce the total phosphorous excreted, specifically 6-phytase enzyme will be added into all the feedstuffs during milling. The enzyme degrades the phytate phosphorous in grain during digestion, making more naturally occurring phosphorous and other nutrients available to the chickens.</li> </ul>

		<ul style="list-style-type: none"> <li>Use of highly digestible inorganic phosphates for the partial replacement of conventional sources of phosphorous in the feed, specifically calcium hydrogen orthophosphate/ calcium phosphate will be added into all the feedstuffs during milling.</li> </ul>
BAT 5	<i>In order to use water efficiently, BAT is to use a combination of the techniques given [in the BAT conclusions document].</i>	<p>Operators will be using a combination of BAT:</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 poultry housing and equipment</li> <li>Select and use suitable equipment (e.g., nipple drinkers) for rearing broiler chickens, while ensuring water availability (ad-libitum).</li> </ul>
BAT 6	<i>In order to reduce the generation of waste water, BAT is using a combination of the techniques given [in the BAT conclusions document].</i>	<p>Operators will be using a combination of BAT:</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.</li> </ul>
BAT 7	<i>In order to reduce emissions to water from waste water, BAT is to use one or a combination of the techniques given [in the BAT conclusions document].</i>	<p>Operators will be using one BAT:</p> <ul style="list-style-type: none"> <li>Drain waste water to dedicated containers.</li> </ul>
BAT 8	<i>In order to use energy efficiently in a farm. BAT is to use a combination of the techniques given [in the BAT conclusions document].</i>	<p>Operators will be using a combination of BAT:</p> <ul style="list-style-type: none"> <li>Package heating system using liquified petroleum gas (LPG) and high velocity ventilation (with outlet vents greater than 5.5 metres high and package extraction fans with efflux velocity greater than 7m/s) installed in all the poultry houses</li> <li>Package computer controlled environmental systems to manage and optimise heating and ventilation systems</li> <li>Insulation of walls and ceilings</li> <li>Use energy efficient lighting, where appropriate.</li> </ul>

BAT 9	<i>In order to prevent, or where that is 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 [in the BAT conclusions document].</i>	<p>The H1 Environmental Risk Assessment submitted with application EPR/YP3805LA/A001 shows noise sources have been identified as having potentially moderate significance. There are sensitive receptors within 400 metres so created a Noise Management Plan in accordance with SGN EPR6.09 'How to comply" including BAT:-</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> </ul> <p>Operators have no recollection of having substantiated any historical noise incidents, complaints, or concerns so a noise reduction programme to implement elimination and/or reduction measures is not considered necessary at this time.</p>
BAT 10	<i>In order to prevent, or where that is not practicable, to reduce noise emissions, BAT is to use one or a combination of the techniques given [in the BAT conclusions document].</i>	<p>Operators will be using a combination of BAT:</p> <ul style="list-style-type: none"> <li>• Equipment location</li> <li>• Operational measures</li> <li>• Low noise equipment</li> <li>• Noise abatement</li> </ul> <p>BAT have been identified in the Noise Management Plan.</p>
BAT 11	<i>In order to reduce dust emissions from each animal house, BAT is to use one or a combination of the techniques given [in the BAT conclusions document].</i>	<p>The H1 Environmental Risk Assessment submitted with application EPR/YP3805LA/A001 shows dust sources have been identified as having potentially moderate and minor significance. There are sensitive receptors within 100m so created a Dust and Bio-aerosol Management in accordance with SGN EPR6.09 'How to comply" including BAT:-</p> <ul style="list-style-type: none"> <li>• Use a proprietary mix of chopped straw and coarser wood shavings to reduce dust generation</li> <li>• Applying fresh litter using a low-dust littering technique (e.g., by hand)</li> <li>• Ad-libitum feeding for the broiler chickens</li> <li>• Use pelleted feed (Starter crumbs for chicks for first 2 weeks, then pellets)</li> </ul>

BAT 12	<i>In order 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 elements [in the BAT conclusions document].</i>	<p>The H1 Environmental Risk Assessment submitted with application EPR/YP3805LA/A001 shows odour sources have been identified as having potentially moderate and minor significance. There are sensitive receptors within 400m, so created an Odour Management Plan in accordance with SGN EPR6.09 'How to comply' including and BAT:-</p> <ul style="list-style-type: none"> <li>• A protocol containing appropriate actions &amp; timelines</li> <li>• A protocol for conducting odour monitoring</li> <li>• A protocol for response to identified odour nuisance.</li> </ul> <p>Operators have no recollection of any substantiated historical odour nuisance so an odour reduction programme to implement elimination and/or reduction measures is not considered necessary at this time.</p>
BAT 13	<i>In order 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 given [in the BAT conclusions document].</i>	<p>Operators will be using a combination of BAT:</p> <p>Using poultry housing which implements one or a combination of principles:</p> <ul style="list-style-type: none"> <li>• Keeping the chickens and the surfaces dry and clean</li> <li>• Keeping the litter dry and under aerobic conditions</li> </ul> <p>Optimising the discharge conditions of exhaust air from the poultry houses using a combination of BAT:-</p> <ul style="list-style-type: none"> <li>• Maximised outlet heights – exhausting air above roof level, air exhaust through the ridge instead of through the walls</li> <li>• Increased vertical outlet ventilation velocity having been designed to be installed with uncapped outlet cones</li> </ul> <p>Odour nuisance is expected at sensitive receptors within 400 metres. The combination of BAT [and other] techniques being used have been identified in the OMP.</p>
BAT 14	<i>In order to reduce ammonia emissions to air from the storage of solid manure, BAT is to use one or a combination of the techniques given [in the BAT conclusions document].</i>	No used litter will be stored on-site

BAT 15	<i>In order to prevent, or where that is not practicable, to reduce emissions to soil and water from the storage of solid manure, BAT is to use a combination of the techniques given[ in the BAT conclusions document].</i>	No used litter will be stored on-site
BAT 16	<i>In order to reduce ammonia emissions to air from a slurry store, BAT is to use a combination of the techniques given [in the BAT conclusions document].</i>	N/a
BAT 17	<i>In order to reduce ammonia emissions to air from an earth-banked slurry store (lagoon), BAT is to use a combination of the techniques [in the BAT conclusions document].</i>	N/a
BAT 18	<i>In order to prevent emissions to soil and water from slurry collection, piping and from a store and/or an earth-banked storage (lagoon), BAT is to use a combination of the techniques given [in the BAT conclusions document].</i>	N/a
BAT 19	<i>If on farm processing of manure is used, in order to reduce emissions of nitrogen, phosphorous, odour and microbial pathogens to air and water and facilitate</i>	N/a

	<i>manure storage and/or land spreading, BAT is to process the manure by applying one or a combination of the techniques given [in the BAT conclusions document].</i>	
BAT 20	<i>In order to prevent or, where that is not practicable, to reduce emissions of nitrogen, phosphorous, odour and microbial pathogens to soil and water from land spreading BAT is to use all the techniques given [in the BAT conclusions document].</i>	<p>Measures are described in EPR 6.09 Sector Guidance Note; How to comply – Intensive Farming v2; 2010:-</p> <ul style="list-style-type: none"> <li>• Used litter will not be spread on any land belonging to the operators.</li> <li>• Records will be kept of the quantities and the date of transfer, for example to a power station for recovery or third party for spreading on land and the names and addresses of the receiving farms.</li> <li>• The receiver of the manure and litter will confirm it is spread to land in accordance with the Code of Good Agricultural Practise or that the spreading will be in accordance with a manure management plan for the receiving land to reduce emissions of nitrogen, phosphorous and microbial pathogens to soil and water.</li> </ul>
BAT 21	<i>In order to reduce ammonia emissions to air from slurry land spreading, BAT is to use a combination of the techniques given [in the BAT conclusions document].</i>	N/a
BAT 22	<i>In order to reduce ammonia emissions to air from manure land spreading, BAT is to incorporate the manure into the soil as soon as possible.</i>	<p>Measures are described in EPR 6.09 Sector Guidance Note; How to comply – Intensive Farming v2; 2010:-</p> <ul style="list-style-type: none"> <li>• The receiver of the manure and litter will confirm it is spread to land in accordance with the Code of Good Agricultural Practise and will be incorporated into the soil as soon as possible to reduce ammonia emissions to the air.</li> </ul>



BAT 23	<i>In order 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.</i>	Operators will comply with monitoring kgNH <sub>3</sub> /animal place/year using emission factors in accordance with conditions in the permit so will meet this BAT conclusion in so far as they have reduced ammonia emissions compared to those, they would have produced had they not implemented BAT.
BAT 24	<i>BAT is to monitor the total nitrogen and total phosphorous excreted in manure using one or more of the following techniques [in the BAT conclusions document] with at least the frequency given [in the BAT conclusions document].</i>	Operators will be using the estimation technique using manure analysis for monitoring the total nitrogen and phosphorous excreted in manure once every year.
BAT 25	<i>BAT is to monitor ammonia emissions to air using one of the following techniques with at least the frequency given [in the BAT conclusions document].</i>	Will use estimation technique with EA published dust emission factors for reporting in the pollution inventory once every year.
BAT 26	<i>BAT is to periodically monitor odour emissions to air.</i>	Odour nuisance is expected at sensitive receptors within 400 metres. The protocols for actions, monitoring and responding to odour nuisance have been established to comply with BAT 12 and the combination of BAT [and other] techniques will be used to comply with BAT 13 are identified in the OMP.

BAT 27	<i>BAT is to monitor dust emissions from each animal house using one of the following techniques with at least the frequency given [in the BAT conclusions document].</i>	Will use estimation technique with EA published dust emission factors for reporting in the pollution inventory once every year.
BAT 28	<i>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 with at least the frequency given [in the BAT conclusions document].</i>	N/a, air cleaning equipment will not be used.
BAT 29	<i>BAT is to monitor the following process parameter at least once every year:-</i> <ul style="list-style-type: none"> <li>• <i>Water consumption</i></li> <li>• <i>Electric energy consumption</i></li> <li>• <i>Fuel consumption</i></li> <li>• <i>Number of incoming and outgoing animals</i></li> <li>• <i>Feed consumption</i></li> <li>• <i>Manure generation.</i></li> </ul>	Operators will be keeping records for these parameters in their crop information records and waste records being key performance indicators and to comply with permit conditions on efficient use of energy, raw materials, and avoidance of waste.
BAT 30	<i>In order to reduce ammonia emissions to air from each pig house, BAT is to use one or a combination of the techniques given [in the BAT conclusions document].</i>	N/a

BAT 31	<i>In order to reduce ammonia emissions to air from each house for laying hens, broiler breeders or pullets, BAT is to use one or a combination of the techniques given [in the BAT conclusions document].</i>	N/a
BAT 32	<i>In order to reduce ammonia emissions to air from each house for broilers, BAT is to use one or a combination of the techniques given [in the BAT conclusions document].</i>	Operators will be using one BAT technique:- <ul style="list-style-type: none"> <li>• Forced ventilation and a non-leaking drinking system.</li> </ul>
BAT 33	<i>In order to reduce ammonia emissions to air from each house for ducks, BAT is to use one or a combination of the techniques given [in the BAT conclusions document].</i>	N/a
BAT 34	<i>In order to reduce ammonia emissions to air from each house for turkeys, BAT is to use one or a combination of the techniques given [in the BAT conclusions document].</i>	N/a

## B10.10a BASIC MEASURES FOR IMPROVING HOW ENERGY EFFICIENT THE ACTIVITIES ARE

### 1. Proposed energy usage at Lingar Hill Farm Poultry Unit:

Energy source	Use
Electricity	Lighting, ventilation system including extraction fans and gable end fans and computer systems, feed augers, winches, water pumps and pressure washers, etc.
Liquid petroleum gas	Space heating in all the poultry houses
Red diesel	Back-up generator

### 2. Heating

The correct environment for the birds will be maintained in the poultry houses using ventilation systems with high velocity extraction fans (with outlet vents greater than 5.5 metres high and fan efflux velocity greater than 7m/s) located along the roof ridge of the poultry houses.

Each house will be monitored by a computer system, which automatically controls and records the humidity and temperature.

Space heaters will be equally distributed through the housing to prevent cold spots and sensors triggering and activating the heaters unnecessarily.

Control sensors will be checked regularly and kept clean, so they are able to detect the temperature at stock level.

Ventilation rates will be computer controlled to minimise, as far as the indoor requirements allow heat losses from the houses.

Extraction fans will be fitted with back draft shutters to reduce heat loss.

The poultry houses will be maintained in good condition, cracks and open seams will be repaired.

The houses will be fully insulated with a U-value of approximately 0.4 W/m<sup>2</sup>/°C to reduce condensation and heat loss.

The houses will be constructed with a continuous damp-proof membrane installed under all the concrete floors preventing moisture being drawn up from the ground to ensure the litter is dry and friable and reduce the need to heat the houses to keep the litter dry.

The concrete flooring will be maintained, and cracks will be repaired.

Nipple drinking systems will reduce water spillages.

### 3. Electricity

The ventilation extraction fans in the poultry houses have been selected so that they are the appropriate power and sizes for the houses.

The computer control systems will control the ventilation for maximum efficiency i.e., one fan operating at full capacity rather than two operating at half their capacity.

The fans are low energy per m<sup>3</sup> of air.

The fans will be regularly maintained and cleared of debris.

Low energy light bulbs will be used in the control/vestibule areas, the office, and stores.

Fluorescent lights will be used in the poultry houses.  
 We will operate a variable lighting period during the crop cycle.

4. Fuel Oil

Back-up generator will be regularly maintained by professional contractors in accordance with the manufacturer's instructions to ensure it operates efficiently.  
 There is no incinerator.

5. A breakdown of delivered and primary energy consumption will be recorded and provided to the Environment Agency annually in the following format:

<b>Energy source Delivered MWh</b>	<b>Energy consumption Primary MWh</b>	<b>% Of total</b>
Electricity		
Liquid petroleum gas		
Diesel		
Other (Operators to specify)		
<b>Exported energy</b>	<b>MWh</b>	<b>Source</b>
	N/a	N/a

## **B10.10b HOW WE AVOID PRODUCING WASTE IN LINE WITH COUNCIL DIRECTIVE 2008/98/EC ON WASTE**

1. Waste solid litter, dirty water, and packaging waste, etc generated by the activities will be treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive. Waste will be segregated and securely stored and transferred off-site by registered carriers for recycling, recovery by land treatment to confer agricultural or ecological benefit or used as fuel.
2. Carcasses of dead chickens will be treated in accordance with EU 142/2011 Commission Regulation implementing Regulation 1069/2009 of The European Parliament and of the Council laying down health rules as regards animal by-products 'The EU Implementing Regulation. Animal by-products will be segregated from waste and securely stored and transferred off-site by an approved transporter under the National Fallen Stock Scheme.

**B14 Crown Chicken Ltd delegated authority letter for the declaration**



Environment Agency Permitting and Support Centre  
Environment Permitting Team  
Quadrant 2  
99 Parkway Avenue  
Parkway Business Park  
Sheffield  
S9 4WF

30<sup>th</sup> June 2021

Dear Sirs

**The Environmental Permitting (England and Wales) Regulations 2016 amended**

We are pleased to advise Crown Chicken Ltd have authorised Karl Collett of Green Inc Solutions Ltd as a consultant to assist the business towards complying with the Regulations amongst its permitted installations. Delegating him with the authority to provide the declarations in any permit applications, variations, and transfers on our behalf.

Mr Karl Collett  
Green Inc Solutions Ltd (Company No. 07143864)  
30 Doune Way  
Harleston  
Norfolk  
IP20 9QB  
T: 01379 855045  
E: [k.collett420@btinternet.com](mailto:k.collett420@btinternet.com)

Yours faithfully

A handwritten signature in black ink, appearing to read 'D Bush', is written over a horizontal line.

Daniel Bush  
Company Director

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