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Contents

1	Introduction	4
1.1	Background	4
1.2	Summary of Permitted Operations	4
1.3	Permitting Requirements	4
1.4	Guidance	4
1.5	Application Documentation	4
1.6	Report Format.....	5
1.7	Diagrams and Plans.....	5
2	Process Description.....	6
2.1	Introduction	6
2.2	Places and Housing Systems	6
2.3	Housing Configuration and Features.....	6
2.4	Process Description.....	6
2.5	Secondary Processes.....	7
2.5.1	Stand By Generator	7
2.5.2	Incinerator.....	7
2.6	Design and Maintenance	7
2.7	Incidents and Corrective Action	8
2.8	Site Staffing and Training.....	8
3	Emissions and Monitoring.....	9
3.1	Introduction	9
3.2	Emissions to Air.....	9
3.2.1	Point Source Air Releases.....	9
3.2.2	Point Source Air Release Controls and Monitoring.....	9
3.2.3	Fugitive Releases to Air	9
3.3	Emissions to Ground / Water	9
3.3.1	Point Source Releases to Water	9
3.3.2	Point Source Water Release Controls and Monitoring.....	10
3.3.3	Foul Water Discharges.....	10
3.3.4	Trade Effluent Discharges.....	10
3.3.5	Fugitive Releases to Ground / Water	10
4	Raw Materials and Energy.....	11
4.1	Introduction	11
4.2	Principal Raw Materials.....	11

4.2.1	Livestock.....	11
4.2.2	Feed.....	11
4.2.3	Water Use and Efficiency	11
4.2.4	Energy Use	12
4.2.5	Energy Efficiency	12
4.2.6	Monitoring and Targets.....	13
4.3	Ancillary Raw Materials.....	13
4.4	Raw Material Review.....	16
5	Wastes and Animal By-Products	17
5.1	Introduction	17
5.2	Waste and ABPs	17
5.3	Documentation	18
5.4	Recovery to Land.....	18
5.5	Waste Review and Monitoring.....	18
6	Fugitive Emissions.....	19
6.1	Introduction	19
6.2	Noise	19
6.2.1	Noise Sources.....	19
6.2.2	Noise Control Techniques and Surveys	20
6.2.3	Noise Management Plan.....	20
6.3	Vibration.....	21
6.4	Dust and Bio Aerosols	21
6.5	Odour	21

1 Introduction

1.1 Background

Saunders House Farm LTD are applying for an Intensive Farm Environmental Permit for their site located at Norbeck Bank, Rokeby, Barningham, County Durham, England, DL11 7EB. The farm will be for free range laying hens. The National Grid Reference for the centre of the site is NZ 08821 11661. The Environment Agency's Pre-Application Reference Number related to this application is EPR/WP3024SG/P001.

1.2 Summary of Permitted Operations

Free range hens will be housed in three sheds providing accommodation for a total of 77,000 free range hens places.

Each shed is equipped with a ventilation system providing the required frequency of air changes via high-speed ridge fans. An aviary type system, with manure belt, facilitates weekly removal of litter. Additional facilities on site include an onsite incinerator facility for carcass disposal and a standby generator.

1.3 Permitting Requirements

The facility is required to apply for an Environmental Permit (EP) in order to comply with the Environmental Permitting (England and Wales) Regulations 2016, SI 2016/1154. The relevant sections of the Regulations to describe the prescribed processes are:

Table 1.1 – Permitted Activities	
EPR Schedule 1 Reference	Description
Section 6.9 A(1)	Rearing poultry or pigs intensively in an installation with more than-
(a) (i)	40,000 places for poultry.

1.4 Guidance

The following 'sector' guidance documents, and associated BAT requirements, have been considered when preparing this application:

- Environment Agency guidance - Intensive farming: comply with your environmental permit;
- EC's Best Available Techniques (BAT) Reference Document for the Intensive Rearing of Poultry or Pigs. Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control).

1.5 Application Documentation

The following documents have been submitted in support of this Permit application:

- EA Application Forms.
- MWG-R01-F1 – Installation Information.
- MWG-R02-F2 - Environmental Risk Assessment.
- MWG-R03-F1 – BAT Assessment.
- MWG-R04-F1 – EMS Summary.

- MWG-R05-F1 – Site Condition Report.
- MWG-R06-F1 – Site Drawings.
- MWG-DBMP-F1 - Dust and Bioaerosol Management Plan.
- MWG-OMP-F1 – Odour Management Plan.
- MWG-NMP-F1 – Noise Management Plan.

1.6 Report Format

The report is structured as follows:

- Introduction.
- Process Description.
- Emissions and Monitoring.
- Raw Materials and Energy.
- Wastes and Animal By-Products.
- Fugitive Emissions.

1.7 Diagrams and Plans

Document reference MWG-R06-F1 Site Drawings includes drawings and plans such as the Site Layout and Sensitive Receptor Plan.

2 Process Description

2.1 Introduction

The farm is to be developed to house 77,000 free ranging hens, for egg production. This section of the report details the proposed process and ancillary activities to be covered by the Environmental Permit.

2.2 Places and Housing Systems

Table 2.1 below sets out the housing systems and number of livestock places covered by the Permit.

Shed	Places	Housing System
Shed 1	15,000	Aviary system with manure belts and high-speed ridge fans (11 m/s).
Shed 2	29,000	
Shed 3	33,000	
Notes – The Location of the sheds is detailed on the Site Layout Plan within the document referenced MWG-R06-F1 – Site Drawings.		

2.3 Housing Configuration and Features

The housing systems have been designed to ensure animal welfare requirements are met, ease of handling livestock and efficient clean down. The following measures have been incorporated into the design to ensure effective management of housing thus minimising the associated emissions:

- Drinkers and feed troughs are designed to prevent leakage / wastage.
- Manure belts designed to facilitate maximum transfer of litter to the collection trailer prior to removal off-site.
- Housing surfaces kept clean through high standards of management and effective control of environmental conditions.
- Ventilation systems controlled to ensure optimal housing conditions and comfortable temperature for the birds.
- Capacity calculated on floor space allowances ensuring compliance with associated welfare and assurance scheme standards.
- Regular inspection of sheds, including floors and walls to ensure any damaged is repaired in a timely fashion.
- Pop holes evenly distributed to allow the birds to freely range.
- Healthy vegetation will be maintained in the ranging area to allow chickens to scratch and enable suitable enrichment.

2.4 Process Description

The site operating on an 'all-in, all out' basis, will receive birds aged c.16 weeks from a grower. Upon arrival, the birds will be placed directly into one of the three sheds and bedded up on dust extracted shavings.

Birds are able to roam the ranging area by means of 'pop holes' located at the side of each of the sheds. The surfacing around the pop holes will be rolled stone and concrete with bark chippings strategically placed where necessary to minimise surface run off. The bark chippings will be replaced

periodically, the old chippings taken away with the poultry litter at the end of the cycle. The area around the pop holes is managed to minimise erosion.

Water is supplied via a nipple drinking system fitted with cups to reduce leakage and spills leading to drier litter. Feed when delivered is blown into the bulk feed silos adjacent to each shed. From there it is augured into the houses and distributed to the birds via a chain feeding system. Birds are fed a minimum of three diets during their cycle, gradually reducing levels of protein and phosphorous as the birds age.

Stocksmen monitor the sheds throughout the day to ensure sufficient feed and water is available, the ventilation systems are operating optimally and check the welfare of the birds. When carrying out welfare checks any fallen stock will be collected securely stored in vermin proof containers awaiting transfer to the on-site incinerator or collection by a suitably licensed fallen stock contractor.

Eggs laid in a nest box roll onto a conveyor belt. The belt transports the eggs to the automated egg packaging station where they are packed and palletised ready for despatch.

Litter is removed by belts from the poultry houses into trailers on a weekly basis. The litter is exported from the Installation for spreading, or storage prior to spreading, on land owned by third parties. There is no storage of litter at the farm.

The birds depopulated and sent for slaughter ('all-in, all out' basis), at approximately 80 weeks of age, after the laying cycle has finished i.e. approximately one cycle per 16 months. Once the hens have been depopulated, the sheds will be thoroughly washed and disinfected in preparation for the next cycle. 'Wash out water' is channelled to underground collection tanks to await export off site for spreading, on land owned by third parties.

2.5 Secondary Processes

2.5.1 Stand By Generator

A 150 kVA / 120 kW standby generator will be installed to meet the base electrical load of the site should the mains electricity supply fail. The generator is a standard industrial Gas Oil unit is housed in a sound attenuated, weatherproof housing and fitted an industrial exhaust silencer. The generator base houses a c.350 litres fuel tank. The Medium Combustion Plant Directive controls do not apply to the generator given the thermal input rating is below 1MWth.

2.5.2 Incinerator

An incinerator is to be installed on site. The site incinerator will fully conform to EU Animal By-Products Regulation (ABPR) (EC) No 142/2011 (as amended).

2.6 Design and Maintenance

Process equipment is designed and installed to operate effectively. Site staff will perform routine planned preventative maintenance (PPM), with support from competent engineers and contractors, as required.

Maintenance will take the form of reactive maintenance activities (reacting to breakdowns etc) and planned preventative maintenance (PPM), (to reduce breakdowns / down time and to maintain equipment efficiency). The site will utilise a PPM system detailing the frequency operations maintenance in line with the manufacturers' recommended inspection and maintenance schedules, will be used to log all items of equipment requiring PPM.

2.7 Incidents and Corrective Action

In addition to the PPM regime, site will implement a monitoring and inspection programme to detect any faults or deficiencies with the process and associated operations. Deficiencies encountered will be detailed as part of the Incident and Corrective Action Reporting structure implemented on site. This process ensures the appropriate level of management commitment to ensure any corrective actions / repairs are commissioned and undertaken in a timely fashion.

2.8 Site Staffing and Training

The Organisation Structure and Responsibilities document forms part of the EMS and details the roles and responsibility of staff and sets out the requirement for them to be trained in the appropriate work instructions and procedures.

Site management will ensure that there is sufficient staff, that they are adequately trained and competent including those aspects that could possibly lead to a pollution incident, dealing with accidents and the site's responsibilities under the Environmental Permit.

3 Emissions and Monitoring

3.1 Introduction

This Section of the report provides detail on the emission points associated with the Permitted activities and details any monitoring methods to be implemented.

The potential for environmental impact from the emissions identified below, have been assessed with the Environmental Risk Assessment (ERA) submitted in support of this Permit application, see document referenced MWG-R02-F2.

3.2 Emissions to Air

3.2.1 Point Source Air Releases

Table 3.1 below describes the point source releases to air from site.

Table 3.1 - Point Source Emissions to Air			
Emission Point Reference	Source	Nature of Release	Fuel Source
A1	Generator	Releases of combustion gases from generator.	Gas Oil
A2	Incinerator	Releases of combustion gases from incineration of fallen stock.	Gas Oil
A3	Animal Housing Vents	Ventilated air from animal housing.	N / A

Note: The Emission reference refers to the release points marked on Site Layout Plan in the report referenced MWG-R06-F1.

3.2.2 Point Source Air Release Controls and Monitoring

To ensure optimal combustion performance the equipment will be routinely maintained and serviced in accordance with the manufacturer's recommendations. The ERA concluded that no further monitoring requirements are deemed necessary for point source releases.

3.2.3 Fugitive Releases to Air

Fugitive emissions to air from the installation are detailed within Section 6 below. The Environmental Management System implemented on site will include routine and documented inspections to ensure that any fugitive releases are identified and rectified accordingly. The ERA concluded that no further monitoring requirements are deemed necessary for fugitive releases.

3.3 Emissions to Ground / Water

3.3.1 Point Source Releases to Water

Table 3.2 below describes the point source releases to water from site.

Emission Point Reference	Source	Nature of Release	Final Discharge Location
S1	Site Roofs	Clean roof water	Land drain to the North of Site

3.3.2 Point Source Water Release Controls and Monitoring

The Environmental Management System implemented on site will include routine and documented inspections of site infrastructure, including drainage systems. The ERA has concluded that no further monitoring requirements are deemed necessary for point source releases.

3.3.3 Foul Water Discharges

A septic tank has been installed on site to serve 'domestic' items on site. The septic tank is shown on the Site Layout Plan within the report referred MWG-R06-F1 – Site Drawings. The tank will be a Marsh Euro Septic Tank or similar. The Tank will be CE marked to comply with Construction Product Regulations and is tested and certified to EN12566-1 Annex B and benefits from an hydraulic efficiency of 99.63%.

The outlet of the tank discharges to the West of site and the chamber will be emptied as required. Contents from the chamber will be recovered in line with current Environmental Regulations.

3.3.4 Trade Effluent Discharges

There are no trade effluent discharges from site to sewer.

3.3.5 Fugitive Releases to Ground / Water

The Environmental Management System implemented on site will include a thorough infrastructure monitoring programme designed to ensure there is no loss of integrity to the systems designed to prevent fugitive emissions to land and controlled waters. The infrastructure monitoring programme will form part of the EMS and incorporate site infrastructure such as:

- Feed systems.
- Generator and associated fuel store.
- Incinerator and associated fuel store.
- Drainage system.
- Site Surfacing.

Where deficiencies are encountered these will be reported as part of the EMS using the incident and corrective action structure and repairs instigated.

4 Raw Materials and Energy

4.1 Introduction

This Section of the report details the principal and ancillary raw materials used in the process, including the Raw Materials schedule for the installation.

4.2 Principal Raw Materials

4.2.1 Livestock

Table 4.1 details the principal raw materials processed at the Installation.

Material	Composition	Annual / Throughput	Environmental Fate and Behaviour
Livestock	Hens	Up to 77,000 places / yr.	<ul style="list-style-type: none"> • Biodegradable. High organic content. • Bacteriological and pathogenic content. • Odour, noise, dust generating potential. • Entry into a watercourse would increase the BOD. • Entry into an aquatic environment would have potentially detrimental effect on aquatic life. • Insignificant environmental risk due to storage and handling arrangements in place to meet animal welfare requirements.

4.2.2 Feed

Only dry feed is to be utilised on site. Feed will be delivered in meal form to feed silos. The estimated quantity of feed to be consumed on site per production cycle place is c.3,700t.

A typical feed ratio breakdown over the production cycle to show reduction in N and P levels within the feed has been shown in Table 4.3 below.

Diet	Nitrogen g/Kg	Phosphorus %
LAF RANGE STARTER LAYER MEAL	26.4	0.48
LAF RANGE 1 LAYER MEAL	25.6	0.45
LAF RANGE 2 LAYER MEAL	24	0.42
LAF RANGE 3 LAYER MEAL	22.4	0.40

4.2.3 Water Use and Efficiency

Water used on site is to be supplied from the following sources:

- Mains.
- Metered Borehole supply – supply is less to be than - 20m³ / day.

Water will be used on site for livestock drinking water and cleaning purposes. Water consumption will be measured and record on a daily basis. The following water efficiency controls are implemented –

- High performance nipple drinkers with 'drip cups' are used to minimise water wasted and improve litter quality, subsequently reducing ammonia levels inside the sheds.
- Water consumption monitored and recorded daily from water meters located within the houses.
- Daily checks by stockmen to ensure equipment height is adjusted meeting the need of the birds. Having drinkers at the correct level and adjusting the flow pressure ensures the birds utilise the water correctly, minimising wastage of water and maintaining litter quality.
- Daily checks ensure issues are located and rectified efficiently i.e. leaking drinker nipple.
- Clean down undertaken following the site-specific terminal hygiene plan, to meet welfare requirements. The plan details dilution rates for detergents and disinfectants used to optimise efficiency of raw material usage.
- Site Staff and cleaning contractors trained specifically in terms of the clean down plan.
- Livestock houses are fully insulated, with suitable ventilation systems to regulate temperature and maintain a healthy indoor environment inside the house. Providing a stable environment ensures optimal use of drinking water.

A water efficiency audit will be undertaken every four years as required by the Permit to identify any further water usage efficiency techniques can be employed.

4.2.4 Energy Use

Energy is consumed on site in the form of mains electricity, with a standby-generator available on site for use in the event of a mains power outage. Following a recent review undertaken by ADAS, it is estimated that typical electricity use is 4 kwh per bird over the whole production cycle. On this basis, the following is the annual anticipated energy consumption per year - 77,000 birds x 4 kWh bird / yr = 308 MWh.

The following items are the main sources of energy consumption on site -

- Livestock building ventilation.
- Livestock building lighting.
- Litter conveyors.
- Feed delivery systems.
- Incinerator.

4.2.5 Energy Efficiency

The energy efficiency measures implemented on-site include operational, maintenance and procedural controls. Control measures include:

- The generator and incinerator installed in accordance with supplier's instructions.
- The generator and incinerator form part of the installation's planned preventative maintenance programme i.e. regularly inspected and serviced to ensure continued efficiency.
- Livestock buildings and water supply pipework are insulated and kept in good repair.
- Energy usage monitored and recorded to establish and monitor consumption trends.
- LED energy efficient lighting systems installed, lights are only in use when needed.
- Optimisation of ventilation systems.

4.2.6 Monitoring and Targets

Energy efficiency audits undertaken in line with Permit Requirements. Audits are designed to review energy consumption data and document whether there are opportunities to further improve energy efficiency on site.

4.3 Ancillary Raw Materials

Ancillary materials used in the process are listed in Table 4.3 below, forming a copy of the Companies Raw Material Inventory. This list details those materials stored, either externally in containers above 25 litres/25 kg or internally in containers above 50 litres/50 kg. Quantities smaller are deemed to be insignificant in terms of environmental risk and performance.

The materials listed in Table 4.3 are selected based on operating experience and applicable animal welfare legal standards and requirements. Section 4.4 below provides brief comments regarding alternatives considered.

Table 4.3 - Ancillary Raw Materials									
Material Properties				Material Characteristics				Site Configuration	
Substance	Composition	Purpose	State	CAS No.	Risk Phrases	Environmental Fate and Behaviour	Potential Pollution Risk	Storage Arrangements	Delivery and Handling
Principal Raw Materials									
Livestock	Birds	Egg production.	Solid	-	-	<ul style="list-style-type: none"> • Biodegradable. High organic content. • Odour, noise, dust generating potential. 	<ul style="list-style-type: none"> • Bacteriological and pathogenic content. • Entry into a watercourse would increase the BOD. • Entry into an aquatic environment would have potentially detrimental effect on aquatic life. 	3 dedicated housing units and free range area.	Animals handled in line with welfare requirements.
Water	H2O – Mians Supply	Livestock drinking / cleaning / wash down	Liquid	-	-	Non-hazardous.	None.	No onsite storage.	Direct from mains supply.
Feed	Dry Feed	Feed	Solid	-	-	<ul style="list-style-type: none"> • Soluble in water. • Potential for negative 	Mild pollution potential.	Feed silos.	Bulk deliveries discharged into feed silos

Table 4.3 - Ancillary Raw Materials									
Material Properties				Material Characteristics				Site Configuration	
Substance	Composition	Purpose	State	CAS No.	Risk Phrases	Environmental Fate and Behaviour	Potential Pollution Risk	Storage Arrangements	Delivery and Handling
						environmental impact if left to degrade. <ul style="list-style-type: none"> Dust generating potential. 			by supplier. Silo to Bird feed delivery systems automated on site.
Bedding Material	Wood shavings	Bedding	Solid	-	-	Non-hazardous.	None.	Stored internally and double wrapped.	Materials delivered on pallets.
Generator / Incinerator Fuel	Gas Oil	Fuel – to operate generator / Incinerator	Liquid	68334-30-5	R40 R65 R66	<ul style="list-style-type: none"> Release of the product into water will result in a film of hydrocarbons floating on the surface. Due to low water solubility the predominant loss is through volatilisation. Molecules with higher molecular weight will be 	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	Generator has integral 350 litre bunded tank.	Deliveries made by fuel supplier. Wear appropriate personal protective equipment.

Table 4.3 - Ancillary Raw Materials									
Material Properties				Material Characteristics				Site Configuration	
Substance	Composition	Purpose	State	CAS No.	Risk Phrases	Environmental Fate and Behaviour	Potential Pollution Risk	Storage Arrangements	Delivery and Handling
						absorbed on sediment.			
Cleaning Materials / Disinfectants									
All cleaning materials, disinfectant, foot dip containers are anticipated to be less than 50 litres and are stored internally within a dedicated lockable store with no drain entries, providing secondary containment.									
Veterinary Medicines									
Veterinary medicines are to be kept in a lockable store capable of retaining spillage, resistant to fire and are kept dry, frost free and secure.									

4.4 Raw Material Review

The suitability of the raw materials to be used in the process have been considered with a view for using alternatives that are more sustainable and pose a reduced environmental risk. However, at present there is no scope for alternatives given :

- Water and feed are required to meet animal welfare requirements.
- Quantity of fuel used is minimal and capital cost for installation of renewable alternatives cost prohibitive.
- Cleaning and disinfectant materials by their nature contain components that are harmful to the environment, given their purpose is generally to kill bacteria. Sourcing alternatives which are environmentally less damaging is not feasible, as this would result in less effective cleaning which would breach hygiene requirements.

The exact requirements with regards material usage and volumes will not be known until the facility is fully operational. A full raw materials review will be undertaken in line with the standard Permit condition, where required.

5 Wastes and Animal By-Products

5.1 Introduction

The major sources of waste and animal by-products (ABP) to be produced at the installation have been detailed below and assessed within the Permit application's supporting Environmental Risk Assessment, see document reference MWG-R02-F2.

5.2 Waste and ABPs

Table 5.1 below identifies the notable waste and ABP streams produced on-site, along with site handling and storage arrangements.

Table 5.1 – Sites Waste and ABP				
Waste / ABP ^{1/2}	EWC	EWC Description	Site Handling and Storage Arrangements ³	Disposal / Recovery Method
ABP				
Litter from bird housing.	02.01.06	Animal faeces, urine and manure (including spoiled straw),	Litter conveyed / manually transferred from sheds into trailers prior to removal from site. No litter stored on site.	Transferred off site for spreading to land for agricultural benefit.
Wash Waters from housing washdown.	02.01.06	effluent, collected separately and treated off-site	Captured in dedicated wash down tanks. Pump transfer to spreading equipment prior to removal off site.	Transferred off site for spreading to land for agricultural benefit.
Wastes				
Fallen stock carcasses form bird housing / ranging area.	02.01.02	Animal-tissue waste.	Enclosed securely within incinerator unit, incinerator feedstock bins.	Incinerated on-site.
Ash from on-farm incinerator.	19 01 12	Bottom ash and slag other than those mentioned in 19 01 11.	Secure enclosed storage within incinerator unit. Manual transfer to spreading equipment prior to removal off site.	Transferred off site for spreading to land for agricultural benefit.
Veterinary Medicines for animal welfare.	02 01 99	Wastes not otherwise specified.	Placed in sealed containers and stored in a lockable store. Store capable of retaining spillage.	Wastes are returned to supplier by removal off -site by the retained veterinary company.

Table 5.1 – Sites Waste and ABP				
Waste / ABP ^{1/2}	EWC	EWC Description	Site Handling and Storage Arrangements³	Disposal / Recovery Method
Plastic packaging from raw materials.	15.01.02	plastic packaging	Stored in secure containers.	Transferred off site for recycling.
Notes – <ol style="list-style-type: none"> 1. EWC and associated description for ABPs listed for completeness. 2. All wastes / ABP produced on site will be stored in containers that are durable for the substances stored. 3. Incompatible waste / ABP types will be segregated. 				

5.3 Documentation

Waste and ABP documentation control forms part of the EMS on site. In summary, all waste / ABP contractors transferring and / or receiving waste / ABP shall have appropriate licences and approvals in place. Copies of these licenses and approvals will be held in the records section of the EMS.

Duty of Care transfer documents will be generated to cover transfers of waste / ABP from site. Duty of Care documentation covering these transfers will be held on site or electronically for the following retention periods as a minimum –

- Non-Hazardous Waste Transfer Notes / Season Tickets – 2 years.
- Hazardous Waste Consignment Notes – 3 years.
- ABP Commercial Documents – 2 years.

5.4 Recovery to Land

The majority of waste / ABP generated on site is exported for recovery to land outside of the Permit boundary. Written evidence will be maintained to:

- Record the quantities and the date of transfer to third party for spreading to land.
- The names and addresses and land bank available where litter and wash waters are exported for spreading to land.
- Where a third party accepts liability for removing materials from the installation for spreading, the third party to provide acceptable confirmation that as a minimum, the material is spread to land in accordance with the Code of Good Agricultural Practice; or that the spreading will be in accordance with a manure management plan for the receiving land.

Other land banks or recovery outlets will be identified should land become inaccessible for a prolonged period, such as Anaerobic Digestion.

5.5 Waste Review and Monitoring

Waste audits will be undertaken in line with Permit Requirements. Audits are designed to review waste reduction measures and to ensure that waste produced by the activities is avoided or reduced where possible. Where waste is produced it is recovered whenever practicable or disposed of in such a manner to minimise its impact on the environment.

6 Fugitive Emissions

6.1 Introduction

The Environmental Risk Assessment (ERA) completed in support of this Permit Application, document referenced MWG-R02-F2, demonstrates that fugitive emissions from the proposed installation are deemed to be insignificant.

The sections below outline the potential fugitive emission sources and control techniques for:

- Noise,
- Vibration.
- Dust and bio-aerosols.
- Odour.

6.2 Noise

6.2.1 Noise Sources

The installation is not inherently noisy, and the ERA concluded that noise emissions from the installation are anticipated to be insignificant. Table 6.1 details the sources of noise associated with the operation.

Table 6.1 – Noise Sources					
Source	Nature of the Source of Noise	Hours of Operation	Frequency	Assessed Contribution to Site ¹	Adopted Noise Control Techniques
Livestock Transport	Heavy goods vehicle engines and associated livestock noise.	Deliveries scheduled.	Infrequent-housing cycle c.15 months.	Medium	Drivers requested not to excessively rev their engines. Engines of standing vehicles to be turned off. Livestock moved in compliance with animal welfare requirements to ensure stress and therefore noise levels of livestock are minimised.
Livestock	Birds in house / ranges.	24 hours	Constant	Medium	Animals housed in dedicated units and have access to ranging area. Animal welfare regulations ensure animals are kept well looked after and stress levels minimised.

Table 6.1 – Noise Sources					
Source	Nature of the Source of Noise	Hours of Operation	Frequency	Assessed Contribution to Site¹	Adopted Noise Control Techniques
Raw material / feed deliveries / egg collection / waste and ABP Collection Vehicles	Heavy goods vehicles / Vehicle engine noise, including reversing alarm noise.	During all hours of process operations.	Intermittent	Medium	Drivers requested not to excessively rev their engines. Engines of standing vehicles to be turned off.
Generator	Site Generator Engine	24 hours	Constant.	Medium	Generator operated as per suppliers instructions and serviced under contract.
Incinerator	ABP Incinerator	Scheduled for when required.	Weekly	Medium	Incinerator operated as per manufacturer's instructions / serviced as required.
Notes					
1. Definitions					
High	Noise detectable and distinguishable from background, with significant possibility of causing nuisance				
Medium	Noise detectable and likely to be distinguishable from general background, but not expected to cause nuisance				
Low	Noise likely to be undetectable and undistinguishable from general background				

6.2.2 Noise Control Techniques and Surveys

As described above the site's principal noise reduction techniques are that:

- birds are provided with dedicated housing units.
- drivers are requested not to excessively rev engines and to turn vehicle engines off when vehicles are standing.

Combined with an effective planned preventative maintenance regime on site, further noise reduction measures are deemed unnecessary. In addition, owing to the low number of nearby receptors and the low noise generating potential of site activities, environmental noise surveys are not necessary.

6.2.3 Noise Management Plan

This industry sector guidance documents require noise emissions to be given further consideration. It is noted that there is the potential for noise emissions from the installation. However, the ERA, has concluded that noise emissions from the site are anticipated to be insignificant. The document

referenced MWG-NMP-F1 (NMP) and submitted with this application, is the NMP to be implemented at site.

6.3 Vibration

The installation is not anticipated to be a source of vibration noticeable off-site. In short, the installation does not use equipment of the type known to be a source of external vibration, therefore, there is no potential for vibration from site activities to be noticeable off-site.

6.4 Dust and Bio Aerosols

This industry sector guidance documents require dust and bioaerosols to be given further consideration. It is noted that there is the potential for dust and bioaerosols emissions from the installation. However, the ERA, has demonstrated that dust and bioaerosols emissions from the site are anticipated to be insignificant. The document referenced MWG-DBMP-F1 and submitted with this application, is the DBMP to be implemented at site.

6.5 Odour

This industry sector guidance documents require odour emissions to be given further consideration. It is noted that there is the potential for odour emissions from the installation. However, the ERA, has concluded that noise emissions from the site are anticipated to be insignificant. The document referenced MWG-OMP-F1 (OMP) and submitted with this application, is the OMP to be implemented at site.