

## Accident Assessment Grantham Farm

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Fuel oil spillage/leakage	Water course	Surface drainage system	Appropriate containment measures. Collision protection barriers in place. Maintenance and inspection procedures followed. Spill kit available.	Very unlikely	Contamination of water course	Not significant
Feed Spillage	Water course	Surface drainage system	All spillages cleaned up immediately as per Maintenance and Inspection procedures. Silos protected by collision barriers or location.	Very unlikely	Contamination of water course	Not significant
Chemical spillage from containment area/transfer	Water course/groundwater	Cracks in concrete/poor surface	Appropriate containment measures. Maintenance and inspection procedures followed. Spill kit available.	Very unlikely	Contamination of water course or groundwater	Not significant
Washing operations, dirty water	Water course/groundwater	Surface drainage system	Maintenance and inspection procedures followed. Washing	Very unlikely	Contamination of water course or groundwater	Not significant

containment			operations monitored.			
Fire/fire-waters	Water course	Surface drainage system	Maintenance and inspection procedures followed. Emergency procedures in place. See Emergency plan	Very unlikely	Contamination of water course	Not significant
Flood	Water course	Surface drainage system	Site located out of flood risk area. Maintenance and inspection procedures followed.	Very unlikely	Contamination of water course	Not significant
Vandalism/theft	Water course	Surface drainage system	Fuel isolation valves locked. Poultry houses and associated stores locked.	Unlikely	Contamination of water course	Not significant

## **Minimising Water Use**

High performance nipple drinkers with 'drip cups' are used to minimise water wasted and to improve litter quality, subsequently reducing ammonia levels inside the sheds. The water supply is diverted into two pipe systems, one for each half of the shed. A dosing pump attached to the water supply will allow for vaccine, vitamins or electrolytes to be administered accurately.

Water consumption will be monitored and recorded daily from water meters within the houses. Daily checks by farm staff will allow for equipment height to be adjusted meeting the need of the birds. Having drinkers at the correct level and adjusting the flow pressure will allow birds to utilise the water correctly thus minimising wasted water and maintaining litter quality. These checks will also allow staff to attend to any problems with equipment, such as a leaking drinker nipple.

During the cleaning operation strict guidelines are given by a "tailored" site-specific terminal hygiene plan. This gives levels of water usage and dilution rates for the relevant detergents/disinfectants. Both staff and cleaning contractors are made fully aware of the terminal hygiene procedures.

All poultry houses are fully insulated, and have an adequate ventilation system to help regulate temperature and maintain a healthy environment inside the house, during times of extreme weather. Thus water consumption should not hugely increase during times of hot weather.

## **Minimising Waste**

Raw materials are selected to meet the requirements of the end market, with competitive drivers determining in some cases the specific materials consumed. All the raw materials used in the process are approved for use under the DEFRA approved list of cleaning chemicals and Red Tractor Scheme. Other raw materials consumed are frequently reviewed, with the aims of these reviews being to improve process performance and to minimise potential environmental impact.

The installation is part of a large volume low margin industry where waste minimisation is fundamental for productivity and profitability, consequently the management of the process is designed to minimise process losses and waste generation.

Inorganic waste generated by the farm will mainly consist of paper, plastic and glass. Paper waste will be commonly generated from chick box liners upon delivery of day old chicks. Plastic waste will normally be in two forms, wrapping from bales of wood shavings and bottles from used disinfectants and detergents. The latter form of plastic waste is returned to the Company for disposal after use, as are used light bulbs.

The amount of plastic waste can be minimised through good managerial techniques. By good management of the litter quality, fewer bales of wood shavings will be needed, thus lowering the amount of plastic wrapping discarded. Large, empty, plastic bottles from detergents can be 'recycled' and used for foot dip containers or smaller rubbish bins for the storerooms. Poultry carcasses are, under normal circumstances, collected and stored in sealed containers awaiting regular collection under the fallen stock scheme by a licensed collection agent. As a contingency plan or if an outbreak of high mortality should arise, carcasses will be placed in sealed containers and removed, as detailed in the emergency plan.

In the event of high mortality caused by disease, the operator will follow the guidance of the allocated veterinarian dealing with the outbreak. The mortality would be disposed of at an approved landfill site under the advice of that veterinarian, after consideration of weather conditions and geographical haulage parameters.

## Bio Aerosol Emissions at Grantham Farm

Hazard	Receptor	Pathway	Risk Management	Exposure	Consequence	Overall Risk
<b>To Air</b>						
Dust: Sources: Feed.	Neighbouring dwelling houses within 100m of installation Surrounding Land and Vegetation	Air	Feed delivered in sealed systems. Dust socks fitted to silo exhaust pipes. Closed system delivery of feed from silo to poultry house. Feed spills dealt with promptly.	Dust could have the potential to reach nearby neighbours and surrounding land during certain weather conditions.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant if carefully managed.
Bedding	Neighbouring dwelling houses within 100m of installation Surrounding Land and Vegetation	Air	Use of suitable bedding materials, not blown into poultry house.	Dust could have the potential to reach nearby neighbours and surrounding land during certain weather conditions.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant if carefully managed.
Litter System	Neighbouring dwelling houses within 100m of installation Surrounding Land and Vegetation	Air	Litter removed at end of crop cycle. Humidity controlled within the poultry houses in the range of 55 – 65%	Dust could have the potential to reach nearby neighbours and surrounding land during certain weather conditions.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant if carefully managed.
Ventilation	Neighbouring dwelling houses within 100m of installation Surrounding Land and Vegetation	Air	Use of roof extraction fans on houses 1- 6.	Dust could have the potential to reach nearby neighbours and surrounding land during certain weather conditions.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant if carefully managed.
House Cleaning	Neighbouring dwelling houses within 100m of	Air	Litter removed carefully during cleanout minimising dust. Full	Dust could have the potential to reach nearby neighbours and	Nuisance – dust on surrounding vegetation, cars and	Not significant if carefully managed.

	installation Surrounding Land and Vegetation		trailers sheeted before leaving installation.	surrounding land during certain weather conditions.	clothing. Smothering and direct damage to nearby vegetation.	
<b>Bird Numbers/Type</b>	Neighbouring dwelling houses within 100m of installation Surrounding Land and Vegetation	Air	270,000 broilers.	Dust could have the potential to reach nearby neighbours and surrounding land during certain weather conditions.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant

## **Contingency Measures for Grantham Farm**

**Power failure – See Emergency Plan**

**Fire – See Emergency Plan**

**Flood – See Emergency Plan**

**Major Bird Loss – See Emergency Plan**

**Water supply Failure – See Emergency Plan**

**Litter/Wash Water Removal – Agreement with neighbouring farms for removal**

**Washing Operations – Use of second contract cleaners**

**Carcase Removal – Secondary collection agent**

**Staff shortage – Contract Labour**

**Bird Collection – Integrator would organise alternative collection**

**Feed – Agreements with other Integrators to supply feed**

**Waste – Other types of non-odorous waste safe to remain on site awaiting**

**Collection**

**Adverse weather conditions road closures – Monitored daily by Integrator with bird collection delayed or brought forward.**

**Site closure during operations is not practicable due to potential welfare issues with intensive livestock installations.**

## Dust Management Plan

### Grantham Poultry unit

Grantham Poultry unit operations have sensitive receptors within 400m of the site boundary.

The Table below gives location and direction of all sensitive receptors within 400m from site boundary.

Receptor Name	Description	Distance	Orientation	National Grid Reference
Managers Bungalow	Staff Residence	5m	North	493962,331098

The main possible dust sources/operations are listed below:

1. Feed Deliveries
2. Feeding Systems
3. Bedding
4. Litter management
5. Stock inspections
6. Ventilation
7. Clean out Operations
8. Bird numbers



A table listing these sources with measures to control/reduce dust emissions is listed below.

<b>Source</b>	<b>Method</b>	<b>Reduction Technique</b>	<b>Implementation</b>
Feed	Feed delivery to Silos	Vents from silos covered to prevent release to atmosphere	In place
	Feed milling	No milling undertaken	N/A
	Feed Ingredients	Oil coating on pellet Some use of maize within diets	Limited as not in operator control In place
	Feed delivery system	Sealed pipe delivery into poultry houses, free fall of feed into hoppers minimised, chain feeding system on timed feeding	Continuous to prevent dust or potential contamination of water course
	Feed spillages		

		preventing over feeding Any feed spills cleared up immediately.	
Bedding	Bedding Type	Use of dust extracted shavings	In place
	Bedding depth  Bedding application	Sufficient layer to absorb moisture produced during crop cycle Base layer spread inside houses with minimum ventilation running, top up bedding in sealed plastic bales	In place  In place
Litter Management	Excessive dry litter	Computer controlled environment	Relative humidity controlled between 55 and 65% keeping balance between dust and odour production
Stock inspections	Increased bird activity	Stock inspections by trained personnel	Light levels reduced to prevent birds panicking and reduced stress
Ventilation	Ventilation Type	Use roof extraction fans on houses 1 - 6	In place on all houses increasing dispersion/concentration
House Cleaning	Dust production during de	No double handling of litter, trailers parked close to	In place/continuous

	littering/cleaning operations	doors, litter tipped carefully into trailers, trailers sheeted prior to leaving site. Care taken during cleaning process to minimise both release of dust to atmosphere and escape of contaminated water	In place/continuous
Bird numbers	Stocking Density	Stocking rate determined by integrator	N/A

**Plan completed August 2019**

Plan to be reviewed every four years or following a substantiated complaint, with Area officer being notified of any changes for approval.

# Cover Sheet

## Grantham Poultry Unit Emergency Plan

Company. Name: Grantham Partners Limited

Nature of Business:- Production of poultry, including feed storage

Date Plan completed (Draft) – August 2019

Date for plan to be reviewed – August 2020

Plan prepared by Owner: - Grantham Partners Limited

Copies:-

Environment Agency (IPPC)  
Farm Office  
Gatehouse at site entrance

## **Grantham Poultry Unit**

### **Policy on Emergencies**

It is our aim to

- minimise the likelihood of an emergency situation occurring, and
- minimise the detrimental effects of an emergency on
  - Flocks,
  - Personnel,
  - The environment and
  - The site itself.

We will achieve the above by ensuring detailed emergency instructions are readily available to all members of staff and that the staff understand these and have been appropriately trained in operating emergency procedures.

All incidents are investigated and if appropriate remedial measures taken to reduce the risk of a recurrence.

### **FARM SITE PROCEDURES**

#### **Section 1 Aims, Responsibilities, and Reviews.**

To minimise the likelihood of an emergency situation occurring and minimise the detrimental effects of an emergency on flocks, personnel, the environment and the site through the use of detailed documented instructions, management review and preventative measures.

This procedure is the responsibility of Grantham Partners Limited, and it covers the whole of the poultry operation at Grantham Poultry Unit. It will be reviewed in the event of an emergency to ensure that it has proved to be effective, and it will be reviewed annually in any event to ensure its currency.

#### **Section 2 General Description**

The Farm Site Plan is a key document in the emergency procedures. It is maintained in an accurate condition, and it will be current, legible and accessible to all members of staff. It contains detailed information that may be required in an emergency situation.

An Emergency Action Plan is maintained in a prominent position

near a telephone and shows procedures to be followed in the event of an emergency, specific directions to the site, and the grid reference. The Emergency Action Plan is reviewed regularly and amended whenever there is a change to the information in it.

A telephone is available and operational on site.

Grantham Partners Limited ensures that all members of staff are aware of the Emergency Action Plan, Farm Site Plan and water sources available for fire fighting.

Provision has been made for an emergency supply of drinking water to cover a period of 24hrs at full demand. Provision has been made for an emergency supply of food. The site has a generator to be used as an emergency power supply for all essential electrical systems and this is regularly tested with the results being recorded and any failure of the generator is immediately rectified. Alarms are installed for any temperature or power problems. Staff are made aware of the documented fire precautions and all houses have a notice indicating the nearest telephone. It is policy to ensure that every building greater than 30 metres in length has two doors. Adequately equipped first aid kits are available.

### **Section 3 – Relevant Documentation**

Site Plan

Emergency Action Plan:

- Fire & Fire Precautions
- Pollution Prevention Control
- Power Failure
- Flood
- Equipment failure
- Food failure
- Water failure
- Disease / High Mortality Plan
- Containment Failure Fuel/Chemical/Foul Water
- Ground Heat Source
- Contacts List
- Raw Materials Sheet
- Inventory

## **SITE PLAN**

A site plan is available in a Gatehouse by the entrance to the Poultry site. A copy is retained in the farm office and at the poultry site showing:

The position and size of all poultry house and access points

All auxiliary poultry buildings and their purpose

Location of fire extinguishers and first aid kits

Water sources for fire fighting

Drainage routes Dirty and Clean

Feed Storage

Fuel Storage

Fuel Isolation Valves

Change over Valves

Catchment Tanks

## **In the event of FIRE**

- Ensure that all farm personnel, contractors and visitors evacuate the farm buildings and proceed to the agreed assembly point which is at the front of the farm, away from danger (e.g. Propane tanks)
- Contact the Fire Brigade immediately on 999
- Do not attempt to tackle the fire unless it is safe to do so without putting yourself or others at risk.
- Inform neighbours in case of toxic fume emission.
- Isolate gas tank valves.
- Turn off electricity supply to buildings (to avoid fans fanning the fire)
- If possible / accessible, open the manhole covers in the sheds to allow water to flow to the dirty water tanks – arrange pumping out as necessary
- Block off outlet from detention basin
- The nearest water source for fire-fighting is the mains water supply.
- Fire extinguishers are as on the Farm Site Plan.
- As soon as site is safe, attend to bird welfare – ventilation, drinking water, heat, feed (also see disease / high mortality plan below)

## **Fire Precautions**

- Ensure you are familiar with the fire fighting equipment on site and their specific uses i.e. powder and liquid - do not use liquid extinguishers on electrical fires.
- Ensure you are familiar with the position of the equipment.
- Report any equipment defects promptly.
- Ensure all safety notices are obeyed.
- Regular inspection of biomass fuel storage for overheating.
- Ensure all exits are clear and fire fighting equipment readily accessible
- Pay particular attention to overheating machinery noticed during inspections or testing (e.g. Generator) and ensure remedial actions are undertaken promptly
- Maintain restricted access to the site
- Ensure buildings are secure
- No smoking, except in designated areas only (specify)
- Ensure all flammable / combustible materials are utilised and



stored safely and according to manufacture's instructions if appropriate.

- Materials and equipment must not be stored in escape routes and passages
- Ensure you know the location of house doors, the nearest telephone, Site Plan and Emergency Action Plan.

### **Pollution Prevention/Control**

- Wash water change over valves to be checked 3 days prior to use
- Prior to wash down ensure catchment tanks are empty. **DO NOT ENTER TANKS**
- Ensure all staff and cleaning contractors are aware of the location and operation of change over valves
- Monitor levels of catchment tanks during washdown to prevent overflow
- Washdown water to be emptied as per manure management plan as soon as possible after washing
- In the event of gas leakage shut off main gas valve **IF SAFE TO DO SO** evacuate personnel. Contact Gas Emergency Number, Fire Services, Environment Agency.
- Chemical spills. Correct PPE must be worn. Minor spills can be cleared up with the use of the chemical spill kit. In the event of a major spillage/leak contact the emergency services/environment agency/integrator.
- Fuel oil leakage. Close valves if safe to do so. Change diverter valves/bungs to containment to prevent contamination of clean water drainage. Minor leaks can be contained by the use of wood shavings, (contact integrator for disposal method). In the event of a major spill/leak inform emergency services/environment agency/integrator.

### **POWER FAILURE**

In the event of a power failure ensure that the generators are running and that the correct loads are operating for fans, lights, feeders etc.

- Call the electricity supplier if the problem is a disruption in supply.
- Call the site Electrician if the problem is localised on site.

## **Total Failure (including backups)**

- In the event of total power failure, including the generator, immediate action must be taken to ventilate the houses ie.
  - Open house doors and ensure all fan louvers are lowered and vents are fully open
  - Contact the site Electrician
  - Call for additional help to ventilate houses
  - Ensure vents are open
  - The extent to which the above actions to ventilate are taken is dependent upon stage of growth and ambient temperature.
- Return of Supply
  - When power is on again, close the house doors and maximise ventilation to facilitate rapid cooling.
  - If necessary use catching fans to facilitate cooling.
  - Monitor bird behavior
  - Ensure an adequate water supply and only run feeders when the houses have been cooled to normal temperature

## **Precautions**

- Check alarms and generators a minimum of weekly and rectify any faults as a priority.
- Ensure the battery, oil and water are adequately replenished.
- Ensure an adequate supply of gas oil is available.
- Ensure the generator is well maintained and the airways clear and radiator clean.

## **FLOOD**

To reduce the risks of flooding ensure all ditches and drains are kept clear and regularly maintained.

If flooding is the result of a burst water pipe ensure that leak is repaired as a matter of urgency.

If the inside of a chicken house is affected every effort should be made to remove as much water as possible and fresh dry shavings spread over the affected area.

## **EQUIPMENT FAILURE**

In the event of equipment failure contact the appropriate service Engineer.

Bird welfare is a priority and every effort must be made to ensure welfare is not compromised by equipment failure.

## **FOOD FAILURE**

In the event of running out of feed contact area manager or the feed mill for an extra / emergency delivery.

## **WATER FAILURE**

- In the event of a disruption to the water supply immediately ascertain the cause of the failure – ensure remedy is put in hand as a matter of emergency.
- In the event that remedy is not possible within twenty hours of failure, arrange emergency tankered supply of potable water.
- Turn off house lights to alleviate unnecessary stress.

If the emergency water supply is not available contact the local Fire Brigade.

## **DISEASE / HIGH MORTALITY PLAN**

- Contact Company Area Manager
- Is it a potentially notifiable disease? – contact Vet for advice, and follow advice / instructions
- Integrator will implement Major Loss Procedures.

## **Containment Failure**

### **Fuel**

In the event of a fuel leak or spillage isolate taps if safe to do so. Switch diverter valves/ bungs to containment to prevent fuel from entering clean water drainage.

Small amounts can be soaked up using wood shavings/sawdust, contact integrator for disposal advice.

Contact emergency services/environment agency/integrator in event of serious leakage.

## **Chemical**

Correct PPE must be worn. (Refer to Product Data Sheet)  
Small spills can be dealt with by use of chemical spill kit, located in chemical store.  
Contact emergency services/environment agency/integrator in event of serious leakage.

## **Foul Water**

Stop washing procedure to minimise leakage/overflow.  
Contact integrator for emergency wastewater removal.  
Use Farm equipment for wastewater removal.  
Contact emergency services/environment agency/integrator in event of serious leakage.

## **Feed**

Minor spills can be cleared up with equipment provided (i.e. broom, shovel, bags)  
Major containment failure, contact company area manager/feed mill for pneumatic recovery vehicle

## **Ground Heat Source Operation**

The ground heat source operations at Grantham Poultry Unit will be a closed loop system.  
There will be no discharges from the system to either ground or surface water systems.  
The medium for the system will be water with anti-freeze, biocide and corrosion and scale inhibitor.  
In the unlikely event of the system needing to be flushed, all liquid will be directed to the underground dirty water tanks, awaiting disposal by a licensed waste carrier, with transfer notes being held on site for inspection. Clean water systems will not be contaminated.  
The system is fully automated with computer control systems continuously monitoring pressure, temperature and energy consumption. The system is fully alarmed and will automatically switch to the LPG back up system in the event of malfunction. A maintenance and service contract is in place with the installers with 24 hour breakdown cover.

Signed

Date

Review Date

Site name	Grantham Poultry Unit
Grid Reference	493904,331052
<b><u>Telephone Numbers</u></b>	
Site	
Fire Brigade	999
Police	999
Hospital	999
Area Manager/Integrator	
Electricity.	08457331331
Gas	08457444999
Environment Agency	0800807060
Service Engineer Electricity	
Service Engineer Plumbing	
Service Engineer Pest Control	
Service Engineer Equipment	
Emergency water supply	
Key Staff Home & Mobile	
Key Staff Home & Mobile	
Veterinary Surgeon	
Feed Supplier	
<b>Emergency Litter Disposal</b>	Temporary Field Storage
<b><u>Directions to the Site:</u></b>	

## **Energy Efficiency.**

Energy consumption at the poultry sites is monitored on a regular basis, with an aim to reduce usage year on year. This is in an effort to reduce costs and improve profitability. As a result, lower consumption, will have a benefit on the environment by using less resources and potentially lowering emissions from the site.

Measures undertaken at the site are:

1. Regular reading of electricity meter
2. Regular reading of Mains Gas meter/ tank stock readings
3. Ventilation matched to the physiological/welfare needs of the birds
4. Regular maintenance of heating system to ensure efficiency
5. Drinking system regularly maintained, properly adjusted to bird height to prevent leaks.
6. Integrity of buildings maintained to prevent ingress of water and draughts, insulation levels above 150mm fibre glass.
7. Use of low energy light bulbs, installation of windows in side walls to allow ingress of natural light.
8. Regular servicing of all electrical equipment by qualified personnel.

## **Environmental Management System Summary Grantham Poultry Unit**

### **Normal Operations**

On a daily basis this will include checks on all equipment to ensure its proper functionality, with any defects being logged and repairs instigated. Daily records will be kept of water and feed consumption, temperatures, humidity and bird mortalities. More detailed description of these operations are listed in the included "Site Operations Document".

### **Maintenance Schedule Recording**

Maintenance log submitted details preventative measures servicing carried out on site, these will cover the main areas such as feed and water systems, heating and ventilation systems in line with manufacturers guidance. Generator is test run weekly under full load to ensure their availability under a mains power interruption, this will also test the alarm systems notifying staff members. Regular checks are made on buildings integrity, including fuel tank bunding and collision protection barriers for all fuel and feed storage areas.

### **Incidents and Abnormal Operations**

Any deviations from normal operations are logged and dated, with corrective actions noted, listing person/contractor detailed to implement corrective actions, dated and signed.

### **Complaints**

All complaints are recorded on the "Complaints Log". This will be dated and nature of complaint recorded, site manager/operator will be responsible for investigation of complaint, remedial action taken and complainant notified of the corrective action taken. The site will display a sign with permit number and contact details for both farm and Environment Agency, at a location outside the site boundary that has public access.

### **Accident/Emergency Plan**

A detailed emergency plan is held on site to cover all eventualities that may pose an environmental risk.



### **Training**

All staff are suitably qualified to work at the installation, any new staff are mentored until such time as training is given. Staff are trained in both Health and Safety and environmental awareness. All staff and Contractors are made aware of the “How to Comply Document” upon entry to the site. Both staff and contractors have defined roles.

### **Installation Plans**

All key plans are reviewed on an annual basis or following an incident, with details and dates recorded of any amendments. These will include Emergency, Noise, Odour and Site Closure Plans.

### **Site Security**

Site has a secure boundary fence, all fuel stores, poultry house and all store rooms are kept locked and secure, preventing any unauthorised access.

## Fugitive Emissions at Grantham Poultry Unit

Hazard	Receptor	Pathway	Risk Management	Exposure	Consequence	Overall Risk
<b>To Air</b>						
Dust: Sources: Litter and Feed.	Staff dwellings within 400m of Installation Surrounding Land and Vegetation	Air	Use of suitable bedding materials. Use of pelleted feed delivered in sealed systems. Litter removed carefully during cleanout minimising dust. Full trailers sheeted before leaving.	Dust could have the potential to reach nearby neighbours and surrounding land during certain weather conditions and operations (clean out approximately 20 days per year) Careful management Should prevent this happening. Unlikely during growing phase.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant if carefully managed.
Ammonia: Source: Poultry housing and Litter storage	Staff dwellings within 400m of Installation Surrounding Land and Vegetation	Air	Measures as described in IPPC SRG 6.02 How to Comply. Litter kept dry and friable. Feed formulated to match flock requirements. Litter removed off site following crop depletion, no storage on site.	The impact of Ammonia Air emissions have been assessed using the H1 methodology and detailed modelling demonstrating there will be insignificant impact to nearby protected sites.	Arial deposition and direct toxic effect on trees. Nutrient enrichment of soils and changes to sensitive ecosystems.	Not significant.
Zoonoses and Notifiable diseases	Human Health an Livestock Health	Air, Direct contact	Detailed biosecurity measures in place. Visitor's procedure. Use of appropriate PPE Tailored terminal hygiene programme Veterinarian health plan	Unlikely	Human and Livestock health implications	Not significant if carefully managed.
<b>To Water</b>						
Wash water run off to nearby ditch	Drainage ditches	Land	Wash water from poultry houses directed in sealed system to underground storage tank. Spillages of litter	Unlikely	Pollution of watercourses leading to eutrophication and poisoning of flora and fauna	Not significant if managed carefully.

			on yard areas during cleanout swept up, Lightly contaminated yard wash directed to underground tank. All clean site drainage directed to offsite ditch.			
<b>Pests</b>						
Flies	Staff dwellings within 400m of Installation	Air	Temporary field heaps regularly checked for maggots and flies, heaps treated with pesticide and covered if flies become a an issue	Unlikely	Flies are a vector of pollution that can harm human health and amenity causing offence.	Not significant if managed carefully.
Rodents/Vermin	Staff dwellings within 400m of Installation	Land	Feed spillages cleared up promptly. Specialist contractor used to control pests.	Unlikely	Rodents are a vector of pollution that can harm human health and amenity causing offence.	Not significant if managed carefully.

## **Grantham Farm**

The installation at Grantham Farm will be able to meet all the new relevant BAT conclusions along with the new BAT AEL's.

A nutritional strategy will be employed reducing the levels of N and P

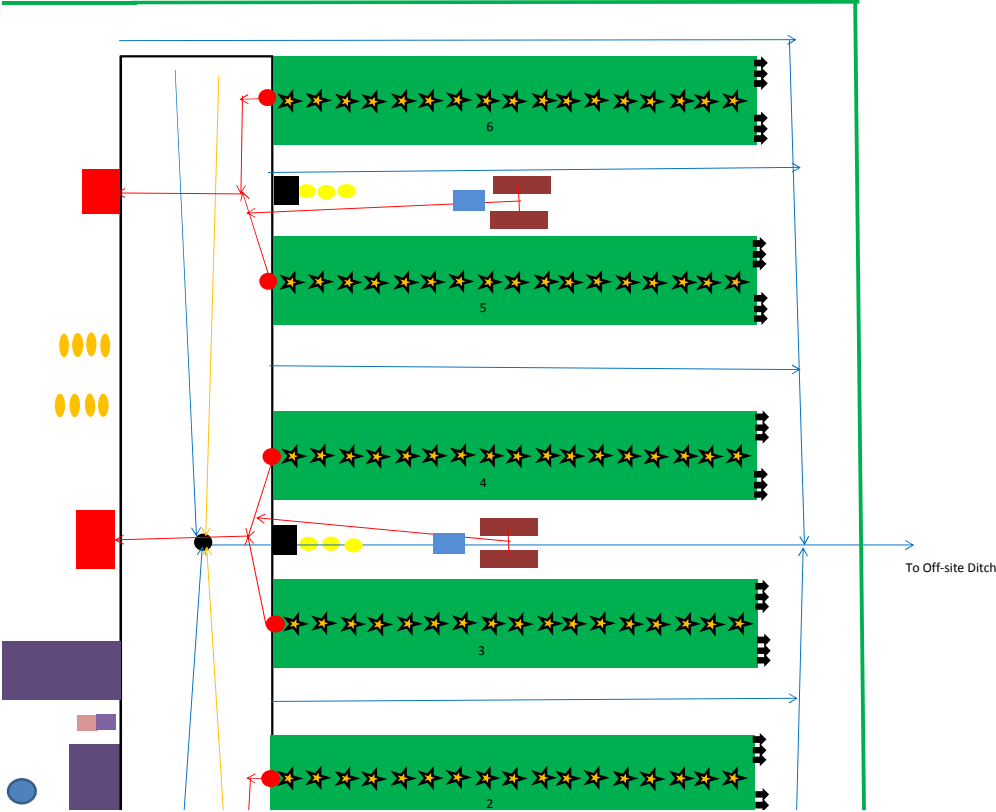
This will be verified by means of manure analysis and reported annually along with dust emissions based on the standard emission factor for broilers.

NH<sub>3</sub> emissions will be calculated using the standard emission factor and reported annually.

On a daily basis, odour levels at the installation will be monitored for high housekeeping odours. OMP amended accordingly.

Grantham farm site/Drainage plan

North ↓



## **Grantham Poultry Unit**

### **Ground Heat Source Operation**

The ground heat source operations at Grantham Poultry Unit will be a closed loop system.

There will be no discharges from the system to either ground or surface water systems.

The medium for the system will be water with anti-freeze, biocide and corrosion and scale inhibitor.

In the unlikely event of the system needing to be flushed, all liquid will be directed to the underground dirty water tanks, awaiting disposal by a licensed waste carrier, with transfer notes being held on site for inspection. Clean water systems will not be contaminated.

The system is fully automated with computer control systems continuously monitoring pressure, temperature and energy consumption. The system is fully alarmed and will automatically switch to the LPG back up system in the event of malfunction. A maintenance and service contract is in place with the installers with 24 hour breakdown cover.

## **H1 Assessment – Grantham Poultry Unit**

**Comprising:**

**Odour**

**Noise**

**Fugitive Emissions**

**Ammonia**

**Accident/Emergency Plan**

**Criteria for assessments based on:**

**Odour – Distance**

**Noise – Distance**

**Ammonia – Detailed Modelling Report.**





## Key Responsibilities

<b>Name</b>	<b>Task/Procedure</b>	<b>Date/Crop</b>	<b>Actions/Comments</b>
	Twice daily site boundary checks (Odour levels, Noise levels and site cleanliness)		
	Twice daily crop inspections including house environment, temperature, humidity, litter condition, drinker system and feeding system.		
	Feed stocks and storage		
	Fuel stocks and storage		
	Bedding stocks and storage		
	Clean drainage system including diverter valves, drains and sediment traps.		
	Foul drainage system including dirty water tanks		
	Bird depletion/thinning		
	De littering operations		
	Washing operations		
	Record Keeping including raw materials inventory, waste transfers, litter and wash water removal and crop recording		
	Complaints Log		
	Annual Plan Reviews including Emergency and Site closure		
	Training records		
	Pollution Inventory returns		

## Noise Assessment at Grantham Poultry Unit

<b>Hazard</b>	<b>Receptor</b>	<b>Pathway</b>	<b>Risk Management</b>	<b>Probability of exposure</b>	<b>Consequence</b>	<b>What is the overall risk</b>
Ventilation fans	No Sensitive Receptors within 400m	Air	Fans operated intermittently Regular maintenance	Slight	Unlikely to cause annoyance	Slight
Feed/Fuel Deliveries	No Sensitive Receptors within 400m	Air	Time restricted deliveries if required	Slight	Potential to disrupt sleep	Slight
Alarm systems	No Sensitive Receptors within 400m	Air	No audible alarms on site	None	Potential to disrupt sleep	None
Bird Catching	No Sensitive Receptors within 400m	Air	Lorries routed away from village Use of plastic bird crates Level loading operating areas	Slight 12 – 16 days per year	Annoyance to village dwellings	Slight
Clean out operations	No Sensitive Receptors within 400m	Air	Operations carried out during normal working hours	Slight	Unlikely to cause annoyance	Slight
Standby Generator	No Sensitive Receptors within 400m	Air	Housed within insulated building Test runs in	Slight	Unlikely to cause annoyance	Slight

			normal working time			
--	--	--	------------------------	--	--	--

## **Non-Technical Summary Grantham Farm**

Grantham Farm poultry operations will consist of 6 fan ventilated poultry house. This will give an approximate bird placing of 270,000 under current legislative/welfare stocking density.

The poultry houses will be constructed to BAT.

Birds will be housed at day old and de populated at around 40 days of age with approximately 7 days empty, which will give between 7 to 8 cycles per annum, this will be done on an all out all in basis.

Before bird arrival the house will be pre-warmed by hot water blown air heaters produced by a closed loop ground heat source system, with an LPG back up system. Temperature and humidity will be automatically controlled and closely monitored on a daily basis to achieve a target level of 21° C, post brooding, and a relative humidity of 60-65%, which is important to minimising emissions. Ventilation is controlled by a negative pressure system using roof mounted extraction fans with sidewall air inlets, with gable fans for summer cooling. Water is via a nipple drinking system.

Birds will be fed a minimum of three diets during their growth, with gradually reducing levels of protein and phosphorous as bird age increases.

Feed is delivered from the company UKAS accredited feed mill and blown into bulk feed bins situated at the ends of the houses, from the feed bins the feed is augered into the houses and distributed to the birds via a pan feeding system.

Litter will be removed off site at end of crop cycle and sold. The farm will then be pressure washed disinfected, dried out prior to the cycle beginning again. All wash waters will be contained in sealed underground tanks.

Fallen stock during the production cycle will be collected and recorded daily. These will be stored in sealed containers awaiting regular collection under the National Fallen Stock Scheme by a licensed collection agent.

The above measures are designed to reduce emissions, trees and hedges will trap dust particles reducing odour. Ammonia emissions will be reduced by reduced protein feed. Containment of wash waters will prevent pollutants being released to the environment. Management plans in place to reduce odour and noise.

Records of tonnages of litter and wash water removal are recorded, along with assurance letters of compliance to the DEFRA codes of good agricultural practises, and sufficient available spreading land.

## Odour Assessment at Grantham Poultry Unit

HAZARD	RECEPTOR	PATHWAY	RISK MANAGEMENT	PROBABILITY OF EXPOSURE	CONSEQUENCE	WHAT IS THE OVERALL RISK
Broiler rearing	Receptors within 400m	Air	Keep litter friable Non leaking drinker system Correct house temp and ventilation	slight	Odour annoyance to humans	Not significant
Depopulation	Receptors within 400m	Air	Covered vehicles	Very slight	Odour annoyance to humans 12-16 nights/year	Not significant
De-littering	Receptors within 400m	Air	Vehicles parked close to houses during loading Covered loads	slight	Odour annoyance to humans 16 days/year	Not significant
Cleaning operations	Receptors within 400m	Air	Use of DEFRA approved chemicals	slight	Odour annoyance to humans 20 days/year	Not significant

**Table 1: Raw materials inventory**

Inventory of Raw Material	On approved lists	Quantity used (litres or kg/yr) p.a.	Quantity stored on site (kg) normally
a) Biocides (includes disinfectants, wood preservatives, slimicides)			
Biokill Disinfectant	Yes		
Biofoam E	Yes		
Bio VX Disinfectant	Yes		
Oocide	Yes		
Shift	Yes	900ltr	150ltr
GPC 8	Yes		
Bioclean Aqua	Yes	900ltr	150ltr
Kick Off	Yes		
Farm Fluid	Yes	900ltr	150ltr
Kick Start	Yes		
Formalin	Yes	2100ltr	350ltr
Ammonia	Yes		
Interkohast	Yes		
b) Pesticides (including herbicides, fungicides, insecticides, vertebrate control products, biological pesticides)			
Roundup	Yes	5ltr	5ltr
Headland Manifest	Yes		
c) Veterinary medicines (excluding dietary additives)			
Lincospectin	Yes		
Gumboro D78	Yes		
Vetremox	Yes		
IB Vaccine	Yes		
Gumboro	Yes		
Tylan	Yes		
d) Bedding types			
Wood Shavings	Yes	20tonnes	5 tonnes
e) Fuels & Oils			
Gas			
Red Diesel		750ltr	2500ltr
Kerosene			
Woodchip		1000 tonnes	100 tonnes
LPG		30000ltrs	24,000ltrs

## Review Schedule

<b>Item Description</b>	<b>Frequency</b>	<b>Action</b>	<b>Date</b>	<b>Carried out by</b>	<b>Comments</b>
Emergency Plan	Annually or following An incident				
Odour Plan	Annually or complaint Received				
Noise Plan	Annually or complaint Received				
Water Review	Every four years				
Energy Review	Every four years				
Drainage Review	Within 12 months Of Permit issue				
Buildings Review	Within 12 months Of Permit issue				
Management Techniques Review	Within 12 months Of Permit issue				





## Routine Maintenance Schedule at Beech Farm

Item Description	Frequency	Action	Date	Comments
Fuel Storage	Weekly	Check bunding and stocks		
Drainage System	Weekly	Ensure gully's and sediment traps are clean Check guttering and downspouts. Ensure catchment tanks are empty prior to wash down. Check changeover/diverter valves and bungs for operation and integrity		
Buildings Integrity	Monthly	Visual check around outside of buildings and concrete areas		
Electrical Systems	Service each crop Daily during crop	Service by qualified electrician. Ensure correct daily operation		
Heating System	Service each crop Daily during crop	Routine maintenance Ensure correct daily operation		
Ventilation System	Service each crop Daily during crop	Routine maintenance Ensure correct daily operation		

Feeder System	Service each crop Daily during crop	Routine maintenance Ensure correct daily operation		
Drinker System	Service each crop Daily during crop	Clean and sanitise Adjust height daily, record water usage and check for leaks		
Generator	Service bi-annual Test run weekly	Service contract Check for any leaks		
House environment	Daily	Ensure correct temperature and humidity levels to maintain litter quality.		
Wash down Tanks	During wash down	Monitor levels during washing to maintain at least 300mm freeboard		

# Site Closure Plan

## Grantham Farm

Site closure plan would be implemented in a series of stages to cover all aspects of the operation of the Installation. Listed below are the relevant stages in order, with the appropriate steps and measures to render the site in a satisfactory condition for closure to the satisfaction of the regulator, for surrender of permit.

1. Litter removal
2. Cleaning operations
3. Housing
4. Fuel
5. Chemicals
6. Feed
7. Waste Materials
8. Services
9. Survey

### **1. Litter removal**

All litter will be removed by the operators staff or contractors, and taken off site for use on operator controlled land as fertiliser in compliance with the manure management plan, or sold with tonnages and destinations recorded.

### **2. Cleaning**

All housing, equipment and ancillary works will be pressure washed and disinfected. Storage tanks for wash waters will be emptied and then closed.

### **3. Housing**

Following cleaning all equipment will be stored securely with fan exhausts and ventilation shafts being covered to keep out pests.

### **4. Fuel**

Fuel suppliers will be contacted for the removal of any remaining fuel, and arrange for storage tanks to be rendered safe or removal.

### **5. Chemicals**

Surplus chemicals remaining would be taken to an operational site or returned to the supplier. Expired chemicals would be disposed of as per manufacturers recommendations.

#### **6. Feed**

Remaining feed would be collected by the supplier and taken to another operational site. The bins themselves would be cleaned and disinfected, before being sealed off.

#### **7. Waste materials**

All waste materials will be recorded and then collected by registered contractors and taken for disposal or reclamation. Storage receptacles will be returned where appropriate, areas for storage will be cleaned and disinfected.

#### **8. Services**

Utility services will be contacted in order that supplies can be shut off.

#### **9. Survey**

Upon completion of the above procedures, the condition of the site will be compared to the original Site Condition Report. This will then determine whether the operation of the installation has caused any pollution to the site.

Any pollution determined will be the responsibility of the operator and remedied to the satisfaction of the regulator.

## Site Condition Report

1.0 SITE DETAILS	
Applicants Name	Grantham Partners Limited
Activity Address	Land at High Dyke, High Dyke, Great Ponton NG33 5BG
National Grid Reference	493904,331052
Document Reference for Site Condition Report at permit application and surrender	26 <sup>th</sup> August 2019
	Location Plan
	Layout/Drainage Plan

2.0 Condition of the Land at Permit issue	
<p>Environmental setting including:</p> <p>Geology</p> <p>Hydrogeology</p> <p>Surface Waters</p>	<p>The broiler rearing unit lies on level ground to the east of Great Ponton, with the surrounding area being mainly flat with some woodland. Predominant land use is grassland and grazing. Field pattern is semi small scale with a medium pattern of field boundaries. There are no nearby residences not associated with the poultry unit within 400 metres from the poultry houses.</p> <p><b>Topography and Drainage</b></p> <p>Grantham Farm poultry operations lie on a level area to the east of Great Ponton, draining to the west. The poultry houses are around 100 to 105 metres above sea level. Careful choice of approved building material colours help to minimise the visual intrusion normally associated with poultry units.</p> <p><b>Geology and Hydrogeology</b></p> <p>According to the British Geological Society solid geology extract map the site is underlain with bedrock of the Jurassic</p>

	<p>period with rock type Rutland formation – Agrillaceous rocks with subordinate sandstone and limestone.</p> <p>Searches indicate some of the site is within a Ground water protection zone. Bedrock Aquifer Secondary B. The site is situated within a Ground water vulnerability area over a Minor aquifer low.</p> <p>The site is within a Nitrate Vulnerable Zone.</p> <p><b>Hydrology</b></p> <p>. Average rainfall for this area is 1250 mm.</p>
<p><u>Pollution history including:</u></p> <p>Pollution incidents that may have affected land</p> <p>Historical land uses and associated contaminants</p> <p>Any visual/olfactory evidence of existing contamination</p> <p>Evidence of damage to pollution prevention measures</p>	<p>None noted</p> <p>Polluting substances – None noted Previous use former pig rearing site, grass and grazing</p> <p>None noted</p> <p>None noted</p>
<p>Evidence of historical contamination</p>	<p>N/A</p>
<p>3.0 Permitted Activities</p>	<p>Six poultry houses for broiler production.</p>

	<p>This will give a total of 270,000 places. The working area where vehicles operate is laid to concrete and hard standing. Feed is delivered in covered lorries and stored on site in vermin proof steel galvanised bins. Immediately following depopulation, litter is exported off site. The houses are then washed and disinfected prior to the cycle beginning again. Underground storage tanks will have been installed to catch all wash waters. Dead birds are removed from the house and stored in sealed containers awaiting regular collection.</p>
Non permitted activities undertaken	N/A
Document References	<p>Location Plan Layout/Drainage Plan H1 Assessment</p>
4.0 Changes to Activity	N/A
5.0 Measures taken to protect Land	<p>Site will be operated in compliance with “how to comply” routine maintenance schedules are followed and recorded and with any abnormal operations recorded.</p>
6.0 Pollution Incidents	N/A
7.0 Soil, gas and water quality monitoring	<p>No monitoring will be undertaken at the installation.</p>

## **Technical Standards Grantham Farm**

### **Operations**

The operation of the farm will be in accordance with SGN EPR6.09 'How to comply with your environmental permit for intensive farming'.

### **Feed**

Selection and use of feed is in accordance with SGN EPR6.09 'How to comply with your environmental permit for intensive farming'.

Protein is reduced over the growing cycle by providing different feeds.

Phosphorus levels in rations are reduced over the production cycle.

Feed storage bins are specifically designed to accommodate the required feeding regime.

No liquid feeds used on site, sealed delivery system from feed silos to poultry house.

Surplus feed remaining at end of crop cycle is kept in the sealed silos for use on subsequent crops, feed having a long "shelf life" (typically 3months)

### **Housing**

Housing design and management is in accordance with SGN EPR6.09 'How to comply with your environmental permit for intensive farming'.

The housing is well insulated, and the sheds have a dampproof course.

The houses are fully insulated with a U-Value of approximately 0.4 W/m<sup>2</sup>/°C to reduce condensation and heat lost.

The houses are fan ventilated by high velocity roof fans and equipped with non-leaking drinking systems. Gable end fans are fitted to provide additional cooling during times of extreme hot weather. Heating for the poultry houses is provided by a closed loop ground heat source system, with LPG backup.

Temperature in the sheds meets the health and welfare needs for the age and number of the birds.

Blown air heaters are spaced regularly within the sheds to prevent cold spots and extremes of temperature. The fans are fitted with back draft shutters to prevent drafts and unnecessary heat loss.

The shed is accessed via the control room/vestibule area, which prevent drafts.

A computer automatically controls ventilation and heating so that heat is not wasted by being drawn out of the building.

The ventilation management system controls the ventilation rates depending on the health and welfare needs of the birds and the outside weather conditions.

### **General Management**

In accordance with the management system at the farm, the buildings are regularly inspected and maintained. The floors and walls of the sheds are kept clean.

The site is regularly inspected and well maintained.

### **Livestock Numbers and Movements**

A system is in place to record the number animal places and animal movements.

These records will be available for inspection.



### **Slurry spreading and manure management planning - off site-activity**

Litter is not stored at the installation.

Any litter that is exported from the installation has records kept of the quantities, destination and the date of transfer to separate farming businesses.

Contingency arrangements are in place with surrounding farms to accept the manure in case of an emergency.

In these circumstances where the litter is exported for spreading to land, records are kept of the names and addresses of the receiving farms.

The receiver of the manure confirms by signing a docket that litter is spread to land in accordance with the Code of Good Agricultural Practice, or in accordance with the manure management plan for the receiving land.

### **Improvement Program**

New houses constructed to BAT.

### **Emissions and Monitoring**

Table of emission points

<b>Emission point description/source and location</b>	<b>Source</b>
<b>Air</b>	
Roof fan outlets on broiler house as shown on the site layout plan	Broiler Houses 1- 6
Gable Fans on broiler house as shown on the site layout plan	Broiler Houses 1- 6
Vents from fuel oil tank for generator and LPG tanks as shown on site layout plan	Generator fuel oil tank LPG tanks
Exhaust on generator as shown on site layout plan	Generator
<b>Land</b>	
Clean water drainage routes as identified on the site drainage plan routed to an off-site ditch	Roof water from rearing houses and the surrounding yard area.
<b>Water</b>	
Clean water drainage routes as identified on the site drainage plan routed to an off-site ditch	Roof water from broiler houses and the surrounding yard area.

### **Fugitive Emissions**

Appropriate measures for preventing and minimising fugitive emissions are in place in accordance with the SGN EPR6.09 'How to comply with your environmental permit for intensive farming'

Building up to BAT.

Areas around buildings will be kept free from build-up of manure, slurry and spilt feed.

Footbaths will be managed so that they do not overflow.

Drainage from animal housing and water from cleaning out as well as wheel wash will be collected in underground storage tank as shown on the site drainage plan. Diverter bungs will be used during wash down periods to prevent the contamination of surface water systems and to divert the wash water to the dirty water tanks. Clean drainage systems will not be contaminated.

Drainage from yards contaminated by litter or wash water will be collected in dirty water tanks.

The wash water tanks are built to conform to specifications in SGN EPR6.09 'How to comply with your environmental permit for intensive farming'.

Spent disinfectants will be added to the dirty water collection tanks.

### **Dust**

Feed is stored in purpose built covered feed silos located next to the rearing shed.

No milling or mixing of feed takes place at the farm. All feed is delivered to the farm by lorry from feed suppliers. Feed is blown directly from the lorry into the storage silos.

Feed is piped from the silos to the sheds minimising dust emissions.

Ventilation systems are operated to achieve optimum humidity levels for the stage of production in all weather and seasonal conditions.

Control of minimum ventilation rates is planned to avoid the build-up of moisture in the house. Ventilation is appropriate to the age and weight of the animal.

Litter is removed at crop end and removed off site. Dust is controlled through the management of air quality.  
Broiler houses have roof ventilation outlets. Rainwater run-off will be collected by the clean water system and routed to the off-site ditch.  
Litter is not stored on the site.

### **Carcass management**

Fallen stock is disposed of in accordance with the current Animal By-Products Regulations. Carcasses will be stored in sealed vermin proof containers awaiting regular collection by a licensed renderer. Records of dates, quantities and destination will be held on site.

### **Flies/Pest Control**

Pest control undertaken by trained company staff. Appropriate actions will be put into place to prevent and control flies should a nuisance arise.

### **Bunding and containment**

#### **Agriculture Fuel oil and other chemical storage**

The fuel oil storage tank is bunded. The bund meet the requirements of the Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) Regulations 2010 (SSAFO Regulations) and meet the requirements outlined in SGN EPR6.09 'How to comply with your environmental permit for intensive farming'. The tank will be regularly inspected.

Pesticides and veterinary medicines will be kept in a store capable of retaining spillage, resistant to fire, dry, frost free and secure. Chemical spill kit located within.

### **Foodstuff**

Feed is kept in silos adjacent to the rearing house. No liquid feed is stored at the site. The silos are sited away from site traffic and protected from collision damage by guard rails.

### **Odour**

There are no neighbours (sensitive receptor) within 400m of the farm.  
In accordance with the SGN EPR6.09 'How to comply with your environmental permit for intensive farming' no requirement for Odour Management Plan.

### **Noise and vibration**

There are no neighbours (sensitive receptor) within 400m of the farm.  
In accordance with the SGN EPR6.09 'How to comply with your environmental permit for intensive farming' no requirement for Noise Management Plan.