APPENDIX 9:

ODOUR MANAGEMENT PLAN

ENVIRONMNETAL PERMIT VARIATION APPLICATION

On behalf of

RJ Hughes

BERRYS

T: 01432 809830 | E: hereford@berrys.uk.com | berrys.uk.com

Contents

1. Introduction

This Odour Management Plan (OMP) details the methods by which the site operator, RJ Hughes, systematically assess, reduce and prevent potentially odorous emissions from the proposed boiler chicken unit in accordance with the Environmental Permitting Regulations.

1.1 Odour Regulation

Guidance issued by Natural Resources Wales describes how the IPPC Directive includes odour in the definition of pollution and requires that '...all the appropriate preventive measures are taken against pollution ...'. This Directive has been transposed in the UK by the Environmental Permitting Regulations (EPR) and sites encompassed within these Regulations will have the following odour condition included within their permit:

The Odour section of Natural Resources Wales guidance, How to Comply with Your Environmental Permit for Intensive Farming, states that;

"Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour."

RJ Hughes must therefore employ the appropriate measures necessary to prevent odour pollution or minimise it when prevention is not practicable. The measures that are appropriate will depend on the industry sector and the site-specific circumstances taking costs and benefits into account.

1.2 OMP Objectives

OMP's are developed and employed with three pollution prevention objectives:

- to identify and employ 'all appropriate measures' to minimise the generation and emissions of odorous substances and subsequent exposure / impact;
- to prevent exposure of people outside the site to levels of odour which would result in annoyance (unacceptable pollution); and
- to minimise the risk of unplanned odour release incidents or accidents which have the potential to result in offsite odour annoyance.

This OMP serves to aid the decision-making process on the choice of controls, general site design, and operational practice in line with current industry best practice. The OMP is a working document with the specific aims of ensuring:

- odour impact is considered as part of routine operations;
- the minimisation of the risk of unplanned odour releasing incidents or accidents that could result in offsite annoyance;

- odour is primarily controlled at source by good operational practices, the correct use and maintenance of plant, and operator training; and
- 'all appropriate measures' are taken to prevent or, where that is not reasonably practicable, to minimise odorous emissions to air from the installation.

1.3 Site Setting

The proposed development site is located at Argoed Farm, the farmstead for which is positioned approximately 700 metres to the south east of the B4569 highway running between Trefeglwys 1.3 miles by road to the south west of the site, and Caersws 3 miles to the east. Access to the yard is gained using the unnamed road which adjoins the B4569 to the north. The farm occupies a rural location, centrally positioned in relation to the agricultural land owned and farmed by R J Hughes & Co.

The closest potentially receptive sensors can be seen below (based on site area not emissions points which may be further away):

Residential
Argoed = 150m (Applicant's property)
Llys Trannon = 340m (Relation to applicant)
Tan-y-Graig = 80m (Relation to applicant)
Caesidanen = 300m
Ddraenen-ddu = 300m

Commercial
None

Public Rights of Way
257/62/2 Passes through s-w corner of site
257/64/1 Passes through Argoed Farm
257/63/1 Passes adjacent n-e corner of the site
The above footpath link to other footpaths both uphill and downhill to the site

Public roads
Minor road to north = 200m

The prevailing weather/wind direction is from the west-south-west direction.

A list of those receptors which has been assessed are detailed below;

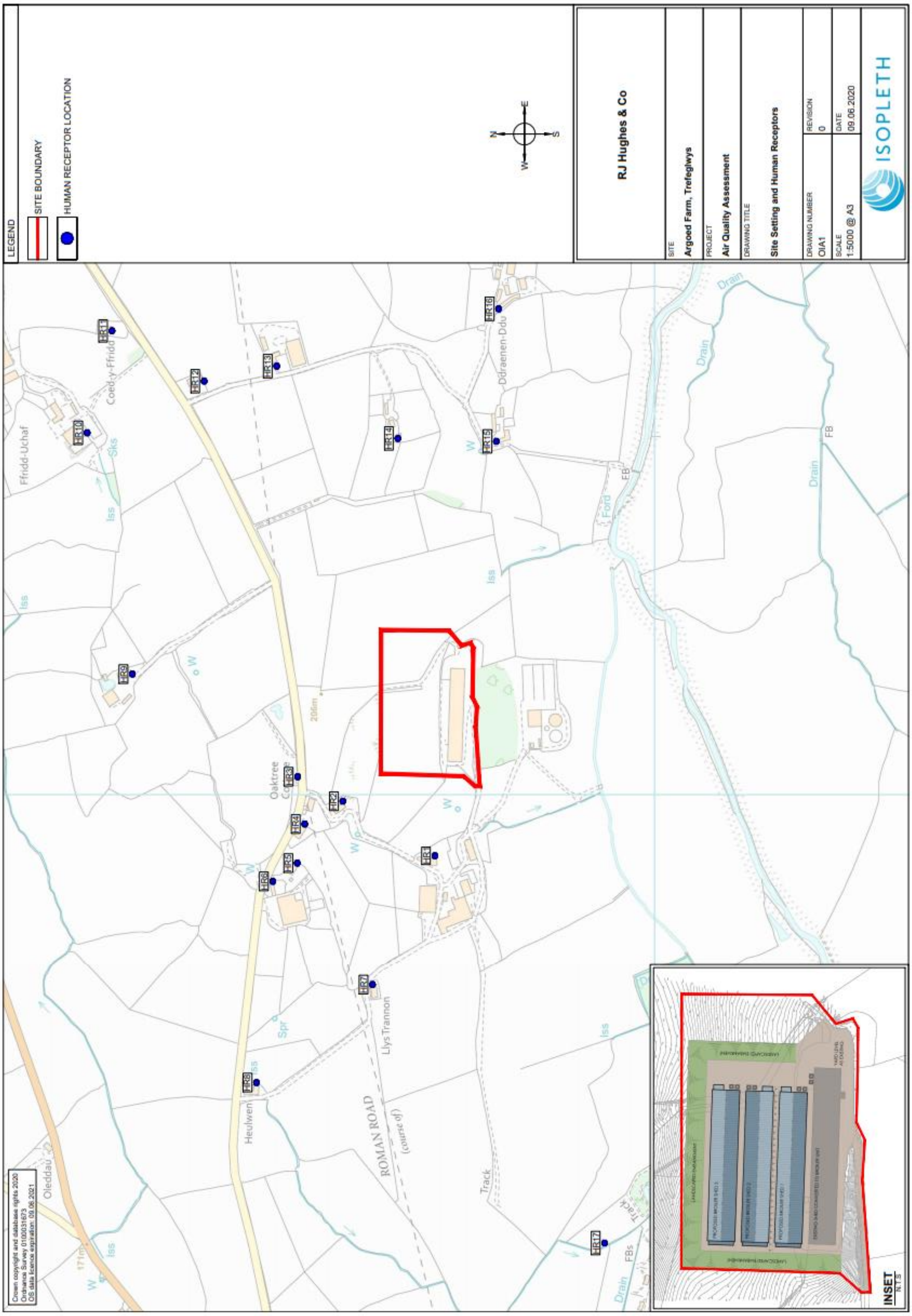
Reference	Description	National Grid Reference	
		OS Xm	OS Ym
D1	Argoed Farm (not sensitive)	298903.1	291335.8
D2	Tan Y Graig (not sensitive)	298987.2	291476.8
D3	Oaktree Cottage	299024.2	291546.0
D4	Pen Ffrydd (not sensitive)	298951.5	291534.9
D5	Penrhos	298891.6	291547.3
D6	Ysgubor Hir	298864.3	291583.9
D7	Llys Trannon	298706.6	291429.6
D8	Heulwen	298555.7	291609.2
D9	Cefn	299180.9	291799.3
D10	Ffrid-uchaf	299550.1	291867.6
D11	Coed-Y-Ffridd	299706.2	291829.5
D12	Fron-Derw	299628.6	291689.2
D13	Pen-Y-ffynnon	299652.0	291578.0
D14	Caesidanen	299542.9	291391.3
D15	Ddreanen-Ddu	299536.8	291242.3
D16	Llechwedd-Ddyrys	299739.8	291238.3
D17	Mid Wales Clay target centre	298307.4	291078.1

The occupants of Argoed Farm (D1) have a vested (economic) interest in the success of this development and also are in a position to directly affect the emissions from the facility and their movements in relation to them. They must therefore not be regarded as sensitive receptors for purposes of odour assessment. Similarly, the family also owns properties:

- D2: Tan Y Graig;
- D4: Pen Ffrydd; and
- D7: Llys Trannon

Receptor D3 Oaktree Cottage has not been occupied for over 5 years although there is the potential for this to be occupied in the future.

Below is a map showing the position of the sensitive receptors and highways;


LEGEND
SITE BOUNDARY
HUMAN RECEPTOR LOCATION
RJ Hughes & Co
SITE
Argoed Farm, Trefeglwys
PROJECT
Air Quality Assessment
DRAWING TITLE
Site Setting and Human Receptors
DRAWING NUMBER
OIA1
REVISION
0
SCALE
1:5000 @ A3
DATE
09.06.2020
ISOPLETH
INSET
N.T.S
HR1
HR2
HR3
HR4
HR5
HR6
HR7
HR8
HR9
HR10
HR11
HR12
HR13
HR14
HR15
HR16
HR17
Oaktree Cottage
Llys Trannon
Heulwen
ROMAN ROAD
(course of)
Ffridd-Uchaf
Coed-y-Ffridd
Ddraenen-Ddu
Oleddau
Track
Drain
Ford
FB
FBs
Iss
Spr
206m
171m

As part of the Odour Management Plan, in section 3 below, there are a range of mitigation measures which are currently in place and which will continue to be implemented to make sure there are no odour issues as part of the redevelopment of the site at Argoed Poultry Unit to broiler chickens.

1.4 OMP Framework

Potential sources of odour have been identified in the Amenity Risk Assessment at Appendix 7 and in this Odour Management Plan. The Amenity Risk Assessment shows the sources of odour pollution identified as contributing to either a potentially not significant if managed properly or of minor significance.

The format of this OMP is based around the factors described in the Poultry Industry Good Practice Checklist (Version 2, August 2013) as being relevant to odour control on a poultry farm, whilst also drawing from Best Available Techniques (BAT).

1.5 OMP Status

This OMP is a controlled document, and forms part of the site Management System.

The specification for the periodic review and update of the OMP will be set out within the site Management System. In line with the recommendations of the H4 Odour Guidance, this takes place on an annual basis, as a minimum.

However, the OMP is intended to be a live document which serves as a reference during daily operations, and as such would be updated on a more frequent basis should the following occur:

- significant changes are made to the plant or operational practices;
- Natural Resources Wales requests that the OMP is updated, in their role as regulator; or
- complaints are received, which on subsequent investigation result in the identification of further control measures or remedial action, in addition to those set out within this OMP.

The OMP in this instance has reflected the redevelopment of the site from free range poultry to broiler chicken rearing.

2. Key Issues: Odour from Poultry Farms

Odours are a normal part of poultry production and result from aerobic and anaerobic microbial activities within the litter and from the animals. In most cases, the offensive characteristics of odour increases with the accumulation of bird waste

in the bedding material over the chicken's growth cycle. Broiler litter is often highlighted to be a major source of odour associated with emission from broiler production sheds.

Operational factors that are reported to influence the emission of odours from poultry production sheds include litter moisture content, pH, temperature, bird activity, litter properties, weather conditions, ventilation rate, air speed, manure quantity and diet.

Other factors with the potential to lead to odour emission include carcass storage and disposal and housekeeping, in particular dust accumulation.

3. Feed & Water

Poorly digested feed ingredients can lead to wetter litter, higher litter nitrogen and therefore an increased welfare risk. For this reason protein quality and the amino acid balance must be optimal.

Different rations are often used, depending on the production stage of the bird. Starter rations are high in protein, with grower and finisher rations lower in protein. For example, typical values are:

- 0-10 days old: 23% protein;
- 11-17 days old: 22% protein;
- 18-24 days old: 21% protein; and
- 25 days+: 18.5% protein.

The largest broilers (i.e. over 25 days) will be fed on an ad-lib basis. There is no on-site milling of feed. The feed will be supplied from Agricultural Supply Trade Association (UKASTA) accredited feed mills. At Argoed Poultry Unit a professional nutritionist will review feed optimisation on a monthly basis (or more frequently if required).

Feed delivery systems are sealed to minimise atmospheric dust and any spillage of feed around the bin is immediately removed (refer to section 11.0 of this OMP).The condition of feed bins checked frequently so any damage or leaks can be identified (refer to section 11.0 of this OMP).

Access to clean water is also important. Levels of total dissolved solids above 3000 ppm in the water can interfere with poultry health and production. Water must be provided in a way which prevents excess litter moisture (refer to section 4.0 of this OMP).

4. Litter and Manure Management

Broiler litter is often highlighted to be the major source of odour associated with emission from broiler production sheds. Although the requirement to keep litter in a well maintained state is enshrined in law (Welfare of Livestock Regulations 1994) and in Defra Welfare Codes, there is a natural deterioration of litter quality throughout the 39 day cropping cycle. This is primarily a result of the build-up of wastes and also litter moisture content.

Poultry litter quality is affected by temperature and by ventilation, drinker type and management, feeder type and management, litter material and depth, condensation, stocking density, nutrition and bird health.

Excess moisture in the litter increases the incidence of breast blisters, skin burns, scabby areas, bruising, condemnations and downgrades. The wetter the litter, the more likely it will promote the proliferation of pathogenic bacteria and moulds. Wet litter is also the primary cause of ammonia emissions. Controlling litter moisture is the most important step in avoiding ammonia problems.

However, litter that is too dry and dusty can also lead to problems such as dehydration of new chicks, respiratory disease and increased condemnations. Ideally, litter moisture should be maintained between 20 to 25 percent.

Broilers are typically bedded on wood shavings, sawdust or straw which, when combined with bird droppings, produces a fairly dry and friable litter. At Argoed Poultry Unit, wood shavings will be used.

Measures to ensure optimal litter moisture content at Argoed Poultry Unit include:

- Controls on feed and ventilation (see above) help to maintain litter quality. Additional controls include:
- Use of nipple drinking systems which minimise spillage. This will be inspected twice daily as a minimum in order to prevent wet litter.
- Insulated walls and ceilings to prevent condensation
- Concrete floors to prevent overcrowding
- Use of a health plan with specialist veterinary input used as necessary

Additional bedding material will be applied during each cycle in order to maintain litter of optimal moisture content.

Assessment of moisture content is undertaken using basic techniques such as observation. For example, when the operator squeezes a handful of litter, if should stay together for a few seconds and then fall through the fingers. If the litter falls through too quickly the litter is too dry, if it clumps then it is too wet.

5. Ventilation

Ventilation is important for the birds' health and will therefore affect production levels. It is applied when cooling is required, and for maintaining the composition of the indoor air at the required levels. Directive 2007/43/EC lays down minimum requirements for environmental parameters that need to be ensured, namely:

- NH3 concentration not exceeding 20 ppm;
- CO2 concentration not exceeding 3 000 ppm;
- indoor temperature, when the outside temperature measured in the shade exceeds 30 ºC, not exceeding this outside temperature by more than 3 °C; and
- indoor average humidity, measured over 48 hours, not exceeding 70 % when the outdoor temperature is below 10 °C.

In poultry houses, three factors have to be considered together, because their control is interdependent. They are the environmental temperature, ventilation rate and humidity.

- The humidity of the poultry house environment is affected by the number and size of the birds and therefore by their respiratory output and also, of course, by the relative humidity of the air being drawn into the house by the ventilation system. When the relative humidity in the house exceeds 70%, the moisture content of the litter tends to increase, leading to poorer conditions. The aim should be to maintain a relative humidity level in the house of between 50 and 70% by supplying sufficient air and added heat when necessary;
- The ventilation rate must always be maintained at a level sufficient to ensure that ammonia does not approach the threshold level. In cold weather this may necessitate increasing the heating levels within the house.
- It is important to prevent cool moist air from falling to the litter. With the correct controls and inlet design this can be achieved.

The measures taken at Argoed Poultry Site to ensure correct levels of ventilation include:

- Ventilation systems regularly adjusted according to the age and requirements of the flock;
- Ventilation system designed to efficiently remove moisture from the house; and
- Ventilation system routinely checked to ensure efficient functioning to specification.

Ventilation may be achieved through the use of natural ventilation, or more commonly, fan powered systems. Standard UK maximum ventilation rate (MXVR) recommendations are based on the theoretical quantity of air needed to prevent bird heat raising house temperature, depending on the stock, stocking rate and inlet design.

Design ventilation flows have been calculated by the designers of the facility. For the comfort and productivity of the birds the temperature within the houses will be regulated. The ventilation is based on a Fancom 'Minimum Transitional Tunnel' (MTT) design, which uses ridge ventilation at the early stage of the cropping cycle and then transferring to a tunnel ventilation system (i.e. gable fan driven) at the end of the cycle.

The ventilation management system will control the ventilation rates depending on the health and welfare needs of the birds and the outside weather conditions. A computer automatically controls the ventilation and heating so that heat is not wasted by being drawn out of the buildings.

Alarms to warn of failure of the ventilation system are mandatory when the birds' welfare depends on powered ventilation. The Welfare of Farmed Animals Regulations requires an alarm that will give adequate warning of the failure of the system to function properly, and additional equipment that will provide adequate ventilation so as to protect the birds from suffering unnecessary pain or unnecessary distress.

Building ventilation will be reduced to a minimum during the initial cleanout phases, which will start within one day of destocking (unless there are adverse weather conditions that would increase odour impact). The ventilation will be increased if necessary once the litter has been removed and the cleaning / disinfecting stages are being completed (refer to section 8.0).

6. Building Design and Maintenance

New house designs consider compliance to pollution and environmental control legislation, energy use and improved biosecurity requirements.

Roofs and walls of poultry houses must be adequately insulated to prevent condensation. Insulation with a U value of 0.4W/m2 C or better is necessary. Insulation greatly reduces heat transfer through a wall or roof. The heat is radiated from the ceiling into the house, increasing the heat load on the birds below. To prevent deterioration of the insulation, a vapour seal between the birds and the insulation is essential unless self-sealed insulation is used. Likewise cool water pipes and tanks should be lagged and the dwarf walls should be insulated. Ideally the concrete floor of the house should have a waterproof membrane to prevent rising damp. All of these features will be in place at Argoed Poultry Unit.

The buildings integrity will be maintained in order to prevent water ingress and will be subject to routine end of cycle maintenance.

7. Catching / Destocking

Doors are kept closed wherever possible during destocking, and catching curtains used where possible.

At times of high ambient temperature or when high humidity poses a threat to the birds, catching, loading and transportation create particular risks of heat stress. It is important that plans are made in advance to reduce the risk. Argoed will use meteorological forecasts of predicted temperatures so destocking can be undertaken during cool periods. Destocking is undertaken at night to assist this process.

The destocking process is designed to take the minimum time possible which is consistent with ensuring bird welfare and will typically be completed within 2 hours.

8. Cleaning Out

To mitigate against odour during clean out the poultry buildings will have effective litter management (particularly when cleaning out the buildings at the end of the cropping cycle) and also mitigation during cleaning and removal of litter will take place, so the impacts would be reduced even further.

Particular care will be taken to ensure that all possible measures are put in place to reduce odour emissions during this stage.

The risk of odour impact during clean out is increased when breezes are blowing from the sheds towards sensitive receptors. Odour movement is also affected by temperature inversions where dispersion is inhibited. Wherever possible house clean out will be avoided in adverse climatic conditions.

There is a slightly longer window of opportunity allowed for clean-out than for some similar units and there is opportunity to delay clean-out if weather conditions would exacerbate the potential for odour issues.

Cleanout will be contained to avoid odours and buildings will be sealed during and after clean out. Building ventilation will be reduced to a minimum during cleanout and will start within one day of destocking (unless there are adverse weather conditions that would increase odour impact). Clean-out over the whole site will take place in a short a time as possible.

Additional measures include:

- Trailers parked as close as possible to the buildings doors in order to reduce the amount of dust being blown away.
- Trailers will not be overfilled to avoid spillage.
- Trailers carrying the litter will be sheeted.

The litter removal will be followed by a comprehensive cleaning process, involving dry methods (such as vacuum cleaning) and wet methods (disinfection). Maintenance is scheduled to avoid recontamination of cleaned houses by dislodged dust, etc.

The cleaning steps include:

- Vacuum dust or blow down/brush on to litter as thoroughly as possible - include ventilation ducting.
- Remove all litter, manure, feathers, etc. as thoroughly as possible.
- Remove spilled litter and dust from the surroundings of houses.
- Use a detergent, soak to loosen adherent organic matter.
- Wash thoroughly using high pressure jet washer or steam cleaner.
- If Salmonella is present, add disinfectant to wash water to reduce contaminated aerosols.
- Pay particular attention to ensure that feeders, drinkers and drinker spillage cups or channels are well cleaned as residual contamination can multiply in these.
- Ensure that all sides of housing and fittings are cleaned and that splashed material is removed.
- Ensure that ventilation ducting above roof fans, cracks in floors and walls, service areas and store-rooms are included in the wash.
- Check with a powerful torch and white baby wipes or paper towels that a thorough job has been done - before the cleaning team leaves the site.
- to avoid recontamination do not wash material from the outside of the house back into the house.
- Safely remove all pooled wash water and washings inside and outside the house.

Procedures are in place to avoid re-contaminating a disinfected house by bringing in un-disinfected equipment.

Dirty water from clean out will be directed into the underground storage tanks, which is an enclosed dirty water collection system. These will be monitored regularly and removed using a sealed system into a tanker before being spread on the farm land or taken to the AD Plant. The spreading / disposal of the dirty water will be done in connection to 9.0 below.

9. Spent Litter / Manure

The litter removed from Argoed Poultry Unit will not be disposed of in the immediate area.

All of the chicken manure produced in the poultry buildings will be utilised by the farms anaerobic digestion (AD) plant. Producing the manure on-site will reduce the amount of manure haulage currently on the roads coming to the farm and will increase the farm self-sufficiency.

Benefits of using the chicken muck in the AD process include that the AD process breaks down the total volume by over 50% as well harnessing the methane gas which is what normally causes the odours associated with muck spreading. Following clear-out of the buildings the muck will be stored in a storage building at the AD site.

The methane gas is burnt off in the engine unit to produce renewable energy leaving a by-product of digestate which is an odourless fibre. Having been broken down by the digestion process the digestate is more readily available for plants to take up than unprocessed chicken muck. Nutrients can be easily utilised by the plants therefore reducing nutrient run-off.

A manure management plan has been produced as part of the permitting process.

10. Carcasses

Fallen stock can be any bird or animal that has:

- died of natural causes or disease on the farm
- been killed on the farm for reasons other than human consumption

Farmers with fallen stock must use approved means and places for their disposal. The National Fallen Stock Company (NFSCo) can help with the disposal of fallen stock and advise on the disease prevention rules, as part of the National Fallen Stock Scheme (NFSS). This is the procedure adopted at Argoed Poultry Unit.

Mortalities are collected daily and stored in sealed vermin proof containers until collected by a licensed agent. Regular collection by a licensed agent, the frequency of which will be increased during the summer months in order to minimise odour issues.

Storage containers will be kept in the cool and shade away from direct sunlight. The containers will be kept covered and locked, and with regular inspection to make sure leaks are prevented from the containers.

11. Housekeeping

The site operators are committed to maintaining site cleanliness. Any spillages are dealt with promptly and correctly.

- All wash water is adequately contained;
- Terminal hygiene plan is followed at all times;
- Suitable chemical products will be selected and the correct dilution rates are adhered to;
- Limit washing operations at weekends and bank holidays where possible.
- Washing operations not to take place during inappropriate weather conditions

Dirty Water is directed to a sealed underground tank for storage. It is then disposed of in the AD Plant.

12. Dust

The poultry housing at Argoed Poultry Unit is thoroughly cleaned between crops to ensure that disease is minimised and flock condition optimised. This will include removal of any dusty deposits within the buildings which have the potential to be odorous.

The buildings would be cleaned using dry and wet methods as described in section 8.0 of this OMP.

Avoidance of disturbing the flock helps to reduce the amount of dust in the poultry houses. This is achieved by minimising the personnel in the poultry houses, conducting as many tasks at one time as is reasonably practical. Loud noises and other sources of stress are deliberately not introduced to the birds to avoid short term ‘panic’ situation where the birds are disturbed and create unnecessary dust.

The control of dust within the housing through the management of litter moisture content as described in section 4.0 and air quality as described in section 5.0 will be undertaken.

The quality of the feed will be regulated by the processing company, finely ground feeds won’t be used as they increase dust emissions. There will be mixing of own

grown grain within the feedstock on the site, however, this will be done in a sealed system. In addition dust 'socks' are fitted to all silo exhausts. These dust socks are made of a fabric filter material that will act similar to a vacuum bag trapping expelled dust and holding it until the bag is correctly disposed of. The bags are held onto the silo exhaust using re-usable ties and replaced in most cases every week.

The delivery of feed to the storage bins and from the storage bins into the poultry buildings will be done through a closed sealed system to minimise dust generation. Feed deliveries are monitored to avoid dust and spills, any spillages of feed around the bin is immediately swept up.

13. Monitoring

Monitoring takes one of 3 forms:

1. Proactive (operational management);
2. Proactive (impacts); and
3. Reactive (impacts).

The monitoring undertaken at Argoed Poultry Unit begins with ensuring the appropriate operation of the farm in relation to the potential sources of odour emissions detailed above. Monitoring in this way is proactive, for example ensuring that the litter remains at optimum moisture content (see section 4.0).

If on site operations (for example cycle stage) and ambient conditions (for example warm weather) are suitable for a high potential for emission and impact, a review of process and operational optimisation will be undertaken by the farm manager. This may inform, for example, the precise timing for destocking.

RJ Hughes will also carry out pro-active monitoring of odours in the area around the site to help detect any off-site odours and identify the cause or causes if present. This monitoring is based on static "sniffing" at various locations around the site following a standard format. The odour reporting form is included with the OMP.

The expansion to the site will be monitored routinely (daily initially and then weekly after the first three months operations, if odours are not detected) using sniff testing. Further sniff testing and observations will be conducted around the various operations on site to identify potential odour risks and sources.

Results of this assessment will be recorded in the site diary and daily monitoring sheet, which will be available for inspection in the site office. Prevailing weather conditions and processing conditions being carried out on site at the time of the assessment will also be recorded.

RJ Hughes already have a proactive relationship with near neighbours so that neighbours are encouraged to report any low-level odours which are not at

"complaint" levels as a means of detecting potential future problems at an early stage.

Neighbours will also be warned of any likely short term odour episodes which might arise as a result of exceptional or infrequent maintenance events. A list of contact details for near neighbours will be maintained in case there is a need to contact them in the event of an emergence event with potential off-site consequences (e.g. serious fire).

RJ Hughes will also follow weather conditions online to allow these to be logged and highlight whether the wind was in the direction of the receptor when the complaint was logged. In this way the potential for complaints may be verified and the potential for other sources discounted.

Monitoring of operations at close receptor points will be undertaken routinely to check that odour is not an issue for neighbouring properties.

In the event of a complaint, ambient odour surveys will be undertaken in accordance with IAQM methods.

14. Contingencies and Accidents

The potential for accidents and unforeseen events can be minimised through optimal design and good operational practice. A full Accident Management Plan can be seen at Appendix 3. Notwithstanding this, contingency plans are in place at Argoed Poultry Unit to prevent odour. This section considers the emergency scenarios, measures taken to minimise their occurrence and short-term measures to minimise impacts with the major issues detailed below and all measures detailed with the Contingency Plan at 16.0 and the Summary Table: Odour Minimisation by Source included at 16.0 and the Summary Table: Odour Minimisation by Activity included at 17.0

14.1 Farm Fires

DEFRA guidance Farm Fires – Protecting farm animal welfare states:

All farms are at risk of fire and each year there are over one thousand fires in agricultural buildings, many of them housing livestock. Most fires on farms can be prevented provided farmers and stockpersons are sufficiently aware of potential fire hazards and alert enough to recognise and remedy any hazards which do occur.

The guidance examines the fire dangers which are commonly found on farms and identifies simple ways in which risks can be reduced by taking sensible measures.

Clearly under such circumstances (i.e. whilst the fire is occurring) the issue of odour nuisance is secondary to human and animal welfare.

With regard to the management of odour impact, the key principals are prompt responses that contain the fire and attempt to distinguish it, minimise damage to containment and extract infrastructure.

Once the fire has been extinguished, measures will be taken to dispose of any livestock killed in the fire in accordance with the methods described in section 10.0 of this OMP.

14.2 Failure of Utilities

The site will have back-up systems. This ensures a constant heat source for the birds.

The site also has a secure (and independent) supply of water for cleaning the houses and hydrating the birds.

14.3 Staffing

The management of Argoed Poultry Unit will be over seen by RJ Hughes. All staff working on the site will be suitably trained and experience in working on a poultry site.

A plan will be put in place to make sure adequate provisions are there in the event of staff illness of holidays etc.

14.4 Major Spillages / Leaks

Details of emergency procedures to be initiated in case of a failure of containment and major spillage/ leaks are details in the Accident Management Plan.

15. Complaint Handling

In the event of an odour complaint an Odour Complaint Form (section 19.0 of this OMP) will be filled in and appropriate action will be taken to remedy the problem should the complaint be validated.

As described in Section 13.0, this complaint will be verified through ambient odour survey and review of site activities.

Auditable records of any investigations carried out will be kept, with incidents analysed to stop them happening again.

The site manager will have ultimate responsibility for investigating complaints and resolving any site issues.

Should there be persistent odour issues after the backstop measures, as set out in the OMP, have taken place then the Site Operator will consult further with the NRW in order to resolve the odour issue.

It should be noted that there have been no odour complaints made to either RJ Hughes or Natural Resources Wales in relation to the existing poultry site.

16. Contingency Plan

Potential Risks		Contingency & Management of Risk			
Hazard	**Receptor**	**How to reduce the chances of it happening**	**Contingency Plan**	**When is action taken and how long would contingency measure be carried out for**	**Person responsible for implementing contingency measures and Environment Agency involvement**
Spillage during delivery of oil or fuel	Contamination of land, drains, groundwater and watercourses	• Staff who have been trained in delivery and emergency procedures should supervise deliveries. • Use drip trays and spill materials • Keep the length of the delivery pipe as short as is practicable. • Main yard area will be an impervious surface. • Keep infrastructure well maintained and repair if necessary.	• Follow steps in the Accident Management Plan • Suitably qualified contractors to clean up the spillage • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waster carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Failure of fuel tank leading to spillage to the yard	Contamination of land, drains, groundwater and watercourses	• Monitor tanks and inspect regularly • Concrete base with bund containing tank and fill point. • Valves are locked when not in use. • Use drip trays and spill materials • Main yard area will be an impervious surface. • Keep infrastructure well maintained and repair if necessary.	• Follow steps in the Accident Management Plan • Use containers to collect the spill before physically blocking the leak to stop any more fuel being spilled. • Staff must immediately try and clean up such spills using absorbent material as detailed above. • Suitably qualified staff to clean up the spillage. • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waster carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Spillages during refuelling of plant and equipment	Contamination of land, drains, groundwater and watercourses	• Supervise refuelling of plant and equipment • Plant and equipment will be refuelled in designated areas with impervious surface. • Use drip trays and spill materials • Keep infrastructure well maintained and repair if necessary. • Regular inspection • Wherever possible, keep the length of the delivery	• Follow steps in the Accident Management Plan • Use containers to collect the spill before physically blocking the leak to stop any more fuel being spilled. • Staff must immediately try and clean up such spills using absorbent material as detailed above. • Suitably qualified contractors to clean up the spillage • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if necessary, as regulated by Natural Resources Wales	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan.

		pipe as short as is practicable	• Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Carry out measures set out in the Accident Management Plan.
Spillage of feed to storage bins	Contamination of land, drains, groundwater and watercourses	• Supervise feed delivers • Siting bins on an impervious surface • Sealed systems to minimise dust • Auger runs kept to a minimum, mostly within buildings. • Barriers in place to prevent collision • Keep infrastructure well maintained and repair if necessary. • Regular inspection • Wherever possible, keep the length of the delivery pipe as short as is practicable	• Follow steps in the Accident Management Plan • Temporarily stop the transfer of feed to the storage bins • Seal the feed bin or pipework if compromised and leaking feed. • Suitably qualified staff to clean up the spillage • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waster carrier from the site. • Repair or replace if the feed bin or pipework is damaged.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Spillage / Leaks of chemicals during storage, including disinfectants, rodenticides and veterinary products	Contamination of land, drains, groundwater and watercourses	• Foot dip containers are only filled to two-thirds full to reduce spillage in use • Use drip trays beneath containers to catch spillage • Chemicals such as disinfectants and herbicides stored in a bunded, fire proof and locked chemical store • Rodenticides are placed in covered, purpose made boxes designed to prevent spillage and run off. • Refilling of rodenticides and foot dip containers are done by a trained member of staff • Regular inspections undertaken and deliveries monitored. • Keep infrastructure well maintained and repair if necessary. • Regular inspection	• Follow steps in the Accident Management Plan • If small containers are found to be leaking the contents must be transferred to a sound empty container, preferably one of the same type. • Use containers to collect the spill before physically blocking the leak to stop any more fuel being spilled and close any valve on pipework to stop material flow. • Staff must immediately try and clean up such spills using absorbent material. • Suitably qualified person to clean up the spillage. • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Spillage of chemicals during delivery and transfer on site to store	Contamination of land, drains, groundwater and watercourses	• Supervise delivers • Use drip trays and spill materials • Main yard area will be an impervious surface. • Keep infrastructure well maintained and repair if necessary.	• Follow steps in the Accident Management Plan • Use containers to collect the spill before physically blocking the leak to stop any more fuel being spilled and close any valve on pipework to stop material flow. • Staff must immediately try and clean up such spills using absorbent material	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency.

			• Suitably qualified person to clean up the spillage. • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Spillage of disinfectant solutions during preparation	Contamination of land, drains, groundwater and watercourses	• Dedicated preparation areas where any spillages can be retained (for liquids) or swept up (powders). • Staff preparing solution to be fully trained. • Keep infrastructure well maintained and repair if necessary. • Regular inspection	• Follow steps in the Accident Management Plan • Suitably qualified person to clean up the spillage • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Spillage of used litter in the yard	Contamination of land, drains, groundwater and watercourses	• Fully trained operators • Spillages swept up instantly • Minimal tipping to minimise dust • All loads covered • Clean out to take place in appropriate weather conditions • Equipment regularly maintained • Keep infrastructure well maintained and repair if necessary. • Inspection during cleanout.	• Follow steps in the Accident Management Plan • Suitably qualified person to clean up the spillage. • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Spillage of litter whilst transferring from site	Contamination of land, drains, groundwater and watercourses	• Fully trained operators • Spillages swept up instantly • All loads covered • Equipment regularly maintained	• Follow steps in the Accident Management Plan • Suitably qualified person to clean up the spillage • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waster carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan.

				necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Carry out measures set out in the Accident Management Plan.
Spillage of dirty water during transfer from tank to tanker	Contamination of land, drains, groundwater and watercourses	• Suction system in place fitted with a non-return valve directly below the dispenser. • Fully trained operators • Regular inspection • Equipment regularly maintained	• Follow steps in the Accident Management Plan • Suitably qualified person to clean up the spillage. • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Spillage of dirty water during transport from site	Contamination of land, drains, groundwater and watercourses	• Fully trained operators • Regular inspection • Equipment regularly maintained	• Follow steps in the Accident Management Plan • Suitably qualified person to clean up the spillage. • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up spillages from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Overflow of disinfectant foot dips and wheel washers	Contamination of land, drains, groundwater and watercourses	• Foot dip containers are only filled to two-thirds full to reduce spillage when in use and overflows in wet weather. • Trays are placed beneath containers to catch spillage • Regular inspection	• Follow steps in the Accident Management Plan. • Suitably qualified person to clean up the spillage. • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up chemicals from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.

Overfilling of oil / fuel tanks during delivery	Contamination of land, drains, groundwater and watercourses	• Stock level control checks • Supervise deliveries • High level alarms • Concrete base with bund containing tank and fill point • Use drip trays and spill materials • Integrity testing • Make sure the delivery points are clearly marked with the tank number, tank contents and maximum tank capacity and are secured when not in use • Make sure you accurately measure the volume of fuel stored and the available capacity in your tanks before every delivery to avoid tanks being overfilled.	• Follow steps in the Accident Management Plan. • Suitably qualified person to clean up the spillage. • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the spillage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up oil / fuel from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Overflow of underground dirty water tank	Contamination of land, drains, groundwater and watercourses	• Level control check • Supervise control during clean out of crops • Steel pipework and below ground tank • Alarmed system • suitable levels of leak detection; • Corrosion and chemical action protection; • Leak containment. • Integrity testing	• Follow steps in the Accident Management Plan. • Suitably qualified person to clean up the spillage. • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the dirty water has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Failure of plant or equipment - Leakages due to faulty pipe work, valves, over-pressure blockages, corrosion, severe weather, ground movement and so on.	Contamination of land, drains, groundwater and watercourses	• Daily visual inspection and completion of weekly inspection checklist record • Preventative maintenance regime. • Any underground pipes and tanks will be tested for integrity. • Insulation and protection of pipework.	• Follow steps in the Accident Management Plan • Suitably qualified person to clean up the spillage • Clean up yard. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur. • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the chemicals, fuels or oils have been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up chemicals, fuels or oils from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.

Failure of plant or equipment - Puncture of vessels and tanks etc. due to impact – such as fork lift trucks	Contamination of land, drains, groundwater and watercourses	• Tanks and vessels located within / on secondary containment facilities. • Storage locations of drums and non-permanent vessels protected by use of barriers or fencing. • Movement of drums and containers using safe techniques and by trained staff.	• Follow steps in the Accident Management Plan • Use containers to collect the spill before physically blocking the leak to stop any more fuel being spilled and close any valve on pipework to stop material flow. • If a small container try turning over to stop spill. • Staff must immediately try and clean up such spills using absorbent material as detailed above. • Block off drain inlets with drain mats kept by diesel tank. • If contained on the surface, before reaching the drainage system transfer the spillage to a temporary container to stop it causing more contamination before cleaning up the spill. • Care shall be taken when cleaning up and disposing of absorbent material that further pollution does not occur • Any waste material will comply with waste management and materials are removed by a suitably qualified waste carrier from the site. • Repair or replace the damaged container of pipework as soon as possible afterwards.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the chemicals, fuels or oils have been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up chemicals, fuels or oils from drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Failure of plant or equipment - Structure failure of underground dirty water tank	Contamination of land, drains, groundwater and watercourses	• Suitable levels of leak detection • Leak containment. • Regular inspection • Keep infrastructure well maintained and repair if necessary.	• Follow steps in the Accident Management Plan • Block off drain inlets with sand bags kept by diesel tank. • If possible stop further additions to the tank • Reduce tank level / empty tank • Contact contractors to repair tank before further additions can be made.	• Immediate action will be undertaken once the spillage has been noticed. • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the dirty water has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Fire in poultry buildings, feed storage, fuel and chemical stores	Smoke and pollution. Firewater causes contamination of land, groundwater and watercourses	• Separation of incompatible materials and of combustible materials and ignition sources. • Incorporation of fire breaks into site layout and containment of fire water. • Monitoring system and alarms in place. • No smoking policy on site.	• Follow steps in the Accident Management Plan • Staff must immediately contact the fire service giving the location and nature of the fire. • Where relevant, details of hazardous substances must be given to the fire service, and locations of fire hydrants pointed out. • Staff must be familiar with the location and operation of fire extinguishers. • Staff should only attempt to fight fires where the risk to their own safety is low.	• Staff must immediately contact the fire service giving the location and nature of the fire. • Where relevant, details of hazardous substances must be given to the fire service, and locations of fire hydrants pointed out. • Contact the site manager if not present • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the dirty water has been cleared and the area cleaned up.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact

		• Maintain a tidy site and minimize stockpile of combustible materials • Fire training and emergency drills	The location of fire extinguishers should be known by staff and shown on the fire safety plan located in the farm office. • Staff will notify nearby residents / workers and ensure affected buildings are evacuated. • Provided personal safety is not compromised, staff shall try to ensure that run-off such as firefighting water and any other polluting substance is prevented from entering drains or watercourse, by channelling to dirty water tank, blocking off clean water drainage system with sand bags located by the diesel tank and absorbing with straw, wood shavings, soil or other absorbent material. • The dirty water tank is emptied afterward to prevent overflow. • Injured birds must be humanely slaughtered on-site according to the instructions of the attending veterinary officer. • If numbers affected exceed the capacity of normal mortality disposal systems, skips must be requested for interim storage. • Unaffected birds if below marketable age must be re-housed on another site, or if at marketable age, sent for immediate processing as arranged with the processing company.		numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Cross contamination - Due to transfer and mixing of incompatible materials, drainage cross connections	Explosion, smoke and pollution of air. Contamination of land, drains, groundwater and watercourses	• Maintenance of up to date drainage plan. • Maintenance of inventory of substances with material property details. • Procedure for contractors to work on site including induction training and permit to work. • Fail-safe filling systems.	• Follow steps in the Accident Management Plan • Staff must immediately contact the fire service giving the location and nature of the fire. • Where relevant, details of hazardous substances must be given to the fire service, and locations of fire hydrants pointed out. • Staff must be familiar with the location and operation of fire extinguishers. Staff should only attempt to fight fires where the risk to their own safety is low. The location of fire extinguishers should be known by staff and shown on the fire safety plan located in the farm office. • Staff will notify nearby residents / workers and ensure affected buildings are evacuated. • Provided personal safety is not compromised, staff shall try to ensure that run-off such as firefighting water and any other polluting substance is prevented from entering drains or watercourse, by channelling to dirty water tank, blocking off clean water	• Staff must immediately contact the fire service giving the location and nature of the fire. • Where relevant, details of hazardous substances must be given to the fire service, and locations of fire hydrants pointed out. • Contact the site manager if not present • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the dirty water has been cleared and the area cleaned up.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.

			drainage system with sand bags located by the diesel tank and absorbing with straw, wood shavings, soil or other absorbent material. • The dirty water tank is emptied afterward to prevent overflow. • Injured birds must be humanely slaughtered on-site according to the instructions of the attending veterinary officer. • If numbers affected exceed the capacity of normal mortality disposal systems, skips must be requested for interim storage. • Unaffected birds if below marketable age must be re-housed on another site, or if at marketable age, sent for immediate processing as arranged with the processing company.		
Flood - Due to ingress of watercourse floodwater, blocked drains, burst water main, use of fire water	Contamination of raw materials, buildings, land, drainage system, groundwater and watercourses with fire and flood water.	• Maintenance of drains • Fitting of flap / non return valves on drains • Safe location for storage of hazardous materials • Sandbags kept on site	• Follow steps in the Accident Management Plan • Installation of boards and sand bags to direct water away from the site and towards the attenuation pond if clean water. • Direct dirty water to the underground drainage tank via the dirty water drainage system • Tanker excess water to prevent the underground drainage tank overflowing • Make sure the storage of hazardous materials are located away from the water. • Make sure the bird welfare is not affected by the flood water. • Clean up yard	• Immediate action will be undertaken once any damage is noticed • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the flood damage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up discharge of substances into the drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Strom damage leading to damage of buildings, feed storage systems, drainage system and flooding	Contamination of raw materials, buildings, land, drainage system, groundwater and watercourses with fire and flood water.	• Buildings and equipment built and fitted to the relevant specifications. • Keep infrastructure well maintained and repair if necessary • Regular inspection of the site.	• Follow steps in the Accident Management Plan • Ensure that staff are safe and if necessary evacuated from the buildings, and that bird welfare is maintained as far as is practicable. • If welfare is compromised the company vet must be summoned. • Conduct an initial internal and external assessment of damage, paying attention to the overall integrity of the building, and services such as water, gas, electricity, and fuel oil. • Assess the risk of pollution from any disruption to these services, and where appropriate take action as described in the section on minor and major spillage. • If the building has been damaged, or flooding has occurred, assess the likelihood of contaminated run-off from wet manure getting into watercourses.	• Immediate action will be undertaken once any damage is noticed • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until the flood damage has been cleared and the area cleaned up. • Notify the Site Operator if they are no present. • Suitably qualified contractors to clean up discharge of substances into the drainage systems, if necessary, as regulated by Natural Resources Wales • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the Accident to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.

			• Ensure that the drainage system is diverted to waste effluent tanks and that spillage is mitigated as described in the section on spillage. • As far as practicable, try to keep buildings watertight. • If necessary arrange for birds to be re-housed or sent for processing.		
Failure of supply of electric.	Flooding, explosion with subsequent contamination of land, drains, groundwater and watercourses	• Provision of standby facilities • Maintenance of back up facilities by qualified contractors • Maintenance of up to date plans showing location of utility services. • Procedure for contractors to work on site including induction training and permit to work	• Follow steps in the Accident Management Plan • If the power fails ensure that the emergency generators have started and that all systems are operating. • Follow utility supply failure procedure, which describes what to do in the event of services supply failure such as; • Manual shut down of process valves; • Use of standby materials • Monitor fuel level, temperature and oil pressure of the generator • Avoid spillage when filling generator fuel tanks • Contact the electricity supply company to notify them of the fault.	• Immediate action will be undertaken once any the failure is noticed • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until any damage or necessary works have been undertaken. • Notify the Site Operator if they are no present. • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the event to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Failure of the heating supply.	Flooding, explosion with subsequent contamination of land, drains, groundwater and watercourses	• Maintenance of AD Plant system by qualified contractors • Provision of standby facilities • Maintenance of back up facilities by qualified contractors • Maintenance of up to date plans showing location of utility services. • Procedure for contractors to work on site including induction training and permit to work	• Follow steps in the Accident Management Plan • Ensure that the emergency gas boiler has started and that all systems are operating. • Follow supplier failure procedure. • Monitor fuel level and temperature of gas boiler • Contact the supply company to notify them of the fault.	• Immediate action will be undertaken once any the failure is noticed • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until any damage or necessary works have been undertaken. • Notify the Site Operator if they are no present. • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the event to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Failure of supply of water.	Flooding, explosion with subsequent contamination of land, drains, groundwater and watercourses	• They must pay particular attention to the possibility of frozen or burst pipes, and the consequences of flood damage and the pollution this may cause.	• Follow steps in the Accident Management Plan • Staff shall check immediately to ascertain the cause of interruption to the supply and undertake a thorough inspection of the system • If the fault is due to a failure of the mains supply contact the water services company, informing them that livestock are dependent on the water supply. • Make sure that water can be temporarily provided to the poultry buildings to maintain bird welfare.	• Immediate action will be undertaken once any the failure is noticed • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until any damage or necessary works have been undertaken. • Notify the Site Operator if they are no present. • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the event to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.

Failure of ventilation system through electrical failure	Explosion with subsequent contamination of land, drains, groundwater and watercourses	• Regular inspection • Keep infrastructure well maintained and repair if necessary • Alarmed system to warn of system failure	• Follow steps in the Accident Management Plan • If mechanical failures occur, establish what equipment or system has failed and call the maintenance engineers • Consider the risks of bird welfare and pollution that may arise from loss of the equipment • Fan located on separate supply and therefore individual fans can be turned off / on as and when required allowing the system to keep running if one fan breaks. • Arrange for appropriate repairs or alternative equipment to be provided as soon as possible.	• Immediate action will be undertaken once any the failure is noticed • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until any damage or necessary works have been undertaken. • Notify the Site Operator if they are no present. • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the event to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Failure of feed supply system into the poultry buildings	Contamination of land, drains, groundwater and watercourses	• Regular inspection • Keep infrastructure well maintained and repair if necessary • Alarmed system to warn of system failure	• Follow steps in the Accident Management Plan • If mechanical failures occur, establish what equipment or system has failed and call the maintenance engineers • Make provisions to arrange for feed to be provided within the buildings by hand. • Arrange for appropriate repairs or alternative equipment to be provided	• Immediate action will be undertaken once any the failure is noticed • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until any damage or necessary works have been undertaken. • Notify the Site Operator if they are no present. • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the event to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Failure of containment facilities due to land movement, impact, corrosion and so on.	Contamination of land, drains, groundwater and watercourses	• Provision of secondary containment for hazardous liquids. • Inspection of primary and secondary containment facilities. • Integrity testing of tanks, bunds and alarms.	• Follow steps in the Accident Management Plan • Use containers to collect the spill before physically blocking the leak to stop any more fuel being spilled and close any valve on pipework to stop material flow. • Staff must immediately try and clean up such spills using absorbent material as detailed above. • Block off drain inlets with drain mats. • Repair or replace the damaged container of pipework as soon as possible afterwards.	• Immediate action will be undertaken once any the failure is noticed • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan until any damage or necessary works have been undertaken. • Notify the Site Operator if they are no present. • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the event to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Death of birds due to extraordinary mortalities	Contamination of land, drains, groundwater and watercourses	• carcass disposal • quarantine birds • Bins can be used a temporary store for fallen stock, especially during times of high mortality. • The bins must be kept clean and disinfected, and they must have lids and be leak-proof.	• Follow steps in the Accident Management Plan • In the event of an outbreak of a notifiable disease requiring the slaughter of birds, carcasses must be disposed of in compliance with the requirements of the State veterinary service. • Remove effected birds immediately from the buildings and dispose of in carcass bins.	• Immediate action will be undertaken once the emergency is noticed • Site Operator and trained Staff on site during the accident to take action. • Follow sets in the Contingency Plan and steps set out in the Accident Management Plan. • Notify the Site Operator if they are no present. • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the event to take immediate responsibility. • To report to Site Operator afterwards but in the first instance to deal with the emergency. • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact

			• Arrange for the birds to collected by an approved transporter and taken for disposal • Notwithstanding this, staff shall be aware of the pollution potential of having large numbers of carcasses on the premises. • Drainage systems must be protected and all run-off diverted to the waste tanks. • Arrangements must be made for these to be emptied regularly with disposal of the effluent undertaken in accordance with veterinary advice. • Skips must be used to contain carcasses if there is any delay in disposal.		numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.
Unable to utilise manure – not possible to use manure in the AD Plant or spread it on the site.	Contamination of land, drains, groundwater and watercourses. Odour	• Monitor weather conditions • Arrange in advance with contractors the likely dates for cleaning buildings and therefore the removal of manure. • Monitor levels of dirty water tank • Arrange in advance with contractors when the dirty water tank will need emptying.	• Arrange with contractors and third party owners that the manure will be stored / spread on third party land as agreed in an emergency situation. • Arrange with contractors and third party owners that the dirty water will be spread on third party land as agreed in an emergency situation. • Measure the levels of the dirty water tank to make sure there is capacity. • If land spreading of dirty water is not possible arrangements to have the tank emptied by a licenced waste disposal contractor will be made. • Delay the clean out period accordingly until manure / dirty water can be removed from the site. • If cannot remove manure off the farm / spread on land then locate manure on farmland away from field drains and watercourse as an emergency store.	• Follow sets in the Contingency Plan and steps set out in the Accident Management Plan. • Notify the Site Operator if they are no present. • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the event to take immediate responsibility. • To report to Site Operator • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact numbers within the Accident Management Plan., if necessary. • Carry out measures set out in the Accident Management Plan.
Absence of staff through sickness etc	Contamination of land, drains, groundwater and watercourses. Odour Health and Safety risk	• Staff aware of responsibilities and have received full training for working on the site. • Training checklist undertaken and reviewed. • Delegation of responsibilities form completed for staff absences	• Follow steps in the Accident Management Plan • Fill out the delegation of responsibilities form for staff absences, which will be completed and provided to covering member of staff. • Relief work to be covered by Site Manager if no one else available to cover position. • Site Manager to talk through position with covering staff member to make sure they are aware of procedures and their covering role during the period the employee is absent.	• Follow sets in the Contingency Plan and steps set out in the Accident Management Plan. • Notify the Site Operator if they are no present. • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the event to take immediate responsibility. • To report to Site Operator • Carry out measures set out in the Accident Management Plan.
Odour emission during the last stage of the crop	Odour	• There is no storage of used litter outside the house at any time. • Yards will be cleaned down at clean out. • Litter is transported in covered trailers. • Litter spread on to the land is done strictly in line	• Follow requirements listed within the odour management plan • Ventilation systems checked against weather conditions and bird requirements. • Additional litter added if required to the houses. • Drinkers checked to make sure what is not leaking on the litter.	• Follow sets in the Contingency Plan and steps set out in the Accident Management Plan. • Notify the Site Operator if they are no present. • Review of Contingency Plan and Accident Management Plan to take place by the Site Operator afterwards.	• Site Manager and any members of Staff on site during the event to take immediate responsibility. • To report to Site Operator • Site Manager or Staff members present to contact Natural Resources Wales via telephone as per the emergency contact

		with an approved manure management plan. • Approved and suitable products used • Full odour management plan put in place and full odour mitigation measures put in place	• Feed is regulated and adjusted during the crop cycle. • Doors kept closed wherever possible during destocking and catching curtains used. • Destocking undertaken at night. • Full cleanout process followed as listed within the odour management plan. • Manure removed off the site and housekeeping is adhered to including a terminal hygiene plan followed at all times. • Proactive monitoring of the site.		numbers within the Accident Management Plan. • Carry out measures set out in the Accident Management Plan.

17. Summary Table: Odour Minimisation by Source

Potential Source	Minimisation Technique	Review Date
Broiler Production Housing	• Litter to be kept as dry as possible. • Ventilation appropriate for bird welfare and to prevent a build-up in humidity. • Staged protein reduction in diets based on age. • Leak proof drinking system, this will be inspected twice daily as a minimum in order to prevent wet litter. • Additional bedding material will be applied during each cycle in order to maintain dry litter. • Early disease detection as sick birds can cause poor or wet litter conditions. • The bird's water consumption will be monitored daily along with humidity within the building. • Correct temperature will be maintained dependent on the stage in the production cycle. • Adequate building insulation will be installed during construction. • The buildings integrity will be maintained in order to prevent water ingress. • Routine end of cycle maintenance. • Maintain site cleanliness, any spillages will be dealt with promptly and correctly. • Site clean and foul water drainage systems will be properly maintained and kept clean in order to reduce odour. • Adequate building insulation will be installed during construction.	Annually- June
Carcases	• Mortalities will be collected daily and stored in sealed vermin proof containers until collected by a licensed agent. • Regular collection by a licensed agent, the frequency of which will be increased during the summer months in order to minimise odour issues. • Containers stored in a cool, safe place, out of direct sunlight.	Annually – June
Litter Removal	• Doors to be closed during initial clear out and only opened when trailers are being loaded. • Trailers parked as close as possible to the buildings doors in order to reduce the amount of dust being blown away. • Trailers will not be overfilled to avoid spillage. • Trailers carrying the litter will be sheeted. • Litter removal not to take place during inappropriate weather conditions	Annually – June
Washing Operations	• All wash water will be adequately contained. • Terminal hygiene plan to be followed at all times.	Annually - June

	• Suitable chemical products will be selected and the correct dilution rates will be adhered to. • Limit washing operations at weekends and bank holidays where possible. • Washing operations not to take place during inappropriate weather conditions	

Stored Litter / Spreading	• All used litter will be taken to the AD Plant for disposal.
	• Should the litter need to be spread then the following steps taken;
	  ○ Limit spreading at weekends and bank holidays
	  ○ Limit spreading in still and humid conditions
	  ○ Limit spreading close to neighbours
	  ○ Compliance with manure management plan
	  ○ Incorporate litter as soon as possible
		Annually - June

18. Summary Table: Odour Minimisation by Activity

Odour Related Issue	Potential Risks and Problems	Actions taken to minimise odour and odour risks
Manufacture and selection of feed	• Milling and mixing of compound feeds • The use of poor quality and odorous ingredients • Feeds which are unbalanced in nutrients leading to increased excretion, litter moisture and emissions of ammonia and other odorous compounds to air	• No on site milling • Feed specifications prepared by feed compounders nutrition specialist • Feed supplied from UKASTA accredited feed mills so approved raw material used • Protein is reduced during the crop cycle, as detailed within Section 3.0 above.
Feed storage and delivery	• Spillage of feed during delivery and storage • Creation of dust during feed delivery	• Feed delivery systems sealed to minimise atmospheric dust • Feed deliveries are monitored to avoid dust or spills. • Any spillage of feed around the bin is immediately swept up • The condition of feed bins checked frequently so any damage or leaks can be identified. Feed bins are checked on a daily basis and a full check of all pipework and equipment is undertaken at the end of each crop cycle. • If damage is noted than the use of that feed bin is stopped being used immediately, as detailed in section 16.0 above and the Accident Management Plan. Provisions will be made to arrange for feed to be provided within the buildings by hand.
Ventilation system	• Inadequate air movement in the house leading to high humidity, wet litter and ammonia build up	• Ventilation systems regularly adjusted according to the age and requirements of the flock • Ventilation system designed to efficiently remove moisture from the house

Odour Related Issue	Potential Risks and Problems	Actions taken to minimise odour and odour risks
	• Inadequate system design causing poor dispersal of odours	• Ventilation system routinely checked to ensure efficient functioning to specification. Ventilation equipment is checked on a daily basis and a full check of all pipework and equipment is undertaken at the end of each crop cycle • If there is a failure to the system then steps are taken as detailed in section 16.0 above and within the Accident Management Plan. • Fans are located on separate supplies and therefore individual fans can be turned off / on as and when required allowing the system to keep running if one fan breaks.
Litter management	• Odours arising from wet litter (see above) • The use of insufficient or poor quality litter • Spillage of water from drinking systems • Disease outbreaks leading to wet litter	• Controls on feed and ventilation (see above) help to maintain litter quality. Additional controls include: • Use of nipple drinking systems which minimise spillage, along with drip cups. • Insulated walls and ceilings to prevent condensation • Concrete floors to prevent overcrowding • Use of a health plan with specialist veterinary input used as necessary • The drinker heights, water lines and other equipment are routinely checked to ensure efficient functioning to specification. This is done on a daily basis and a full check of all pipework and equipment is undertaken at the end of each crop cycle • If there is a failure to the system then steps are taken as detailed in section 16.0 above and within the Accident Management Plan.

Odour Related Issue	Potential Risks and Problems	Actions taken to minimise odour and odour risks
		• RJ Hughes will make sure that water can be temporarily provided to the poultry buildings to maintain bird welfare.
Carcass disposal	• Inadequate storage of carcasses on site • Carcasses left on site too long	• Controls on carcasses as detailed in section 10.0 above. • Carcasses are placed in sealed containers immediately after they are removed • Storage container are kept in a cool place, within shade and away from direct sunlight. • The containers are kept covered and locked. • Containers are kept away from sensitive receptors but within an allocated place which is suitable for the site operation. • The containers are checked on a daily basis to make sure there are no leaks. • If the container is found to be leaking or in disrepair then the container then emergency repairs will be undertaken immediately to stop any leakage occurring. • The container in is designed especially for the storage of carcasses, being very easy to use and to wash out with high pressure water to avoid the propagation of diseases and infections. • The containers can be lifted up and emptied without the need to touch the containers. • The container is insulated and double layer to limit any leaks from them. • Regular collection on a weekly basis, with increased times over the summer period.

Odour Related Issue	Potential Risks and Problems	Actions taken to minimise odour and odour risks
		• The containers are disinfected and treated once emptied with odour neutraliser, this wash water is directed to the underground storage tank.
House clean-out	• Creation of dust associated with litter removal from houses • Use of odour products to clean the houses	• Controls on house clean-out are as listed in sections 4.0, 8.0 and 11.0 above. • Cleanout will be contained to avoid odours and the buildings sealing during and after cleanout. • Clean out starts within one day of destocking (unless there are adverse weather conditions that would increase odour). • The sheds take 6 hours to clean out. • The sheds take 2 days to wash out with all water directed to dirty water tanks. • Building ventilation is reduced to a minimum during cleanout, and the cleanout is undertaken as quickly as possible. • All infrastructure including ventilation systems are cleaned during house cleanout, as per the method highlighted in section 8.0 above. • Litter is carefully placed into trailers positioned at the entrance to each house. When full the trailer is covered/sheeted and not overfilled • Only approved and suitable products are used. Clean-out not to take place in inappropriate weather conditions. • Litter is no stored on the site, it is taken off site as per the farms manure management plan.
Used litter	• Storage of used litter on site • Transport of litter and applications to land	• There is no storage of used litter outside the houses at any one time.

Odour Related Issue	Potential Risks and Problems	Actions taken to minimise odour and odour risks
		• Yards are cleaned down at clear out. • Litter is transported in covered trailers. • Litter is disposed of strictly in accordance with approved Manure Management Plan
Dirty water management	• Standing dirty water during the production cycle or at clean out • Applications of dirty water to land	• Areas around the house are concreted and remain clean during the production cycle • At clean-out dirty water is directed to a sealed underground tank for storage. All drains divert into this underground drainage system. • All dirty water tank levels are monitored during wash down to prevent overfill. • If the drainage malfunctions then measures are taken as per the Accident Management Plan. The underground tanks are sucked out and the system unblocked. • The storage tanks are emptied the next day after wash down, subject to weather conditions permitting. • The dirty water system is cleaned out twice, with the system thoroughly cleaned through during washing down operations to make sure no sediment builds up. • Any deposits from the cleaning out is transfers off site as per the removal of used litter from the site. • Vehicle washing takes places at a designed wash point, with all wash waters from this area diverted to dirty water tanks. • It is then spread onto land owned by RJ Hughes as weather conditions permit and in accordance with the manure management plan.
Stock Inspections / Catching	•	• The birds are inspected 3 – 4 times a day, 7 days a week.

Odour Related Issue	Potential Risks and Problems	Actions taken to minimise odour and odour risks
		• Dust avoidance measures are set out in section 12.0 above and with the Dust Management Plan. • The catch teams are fully trained • Doors or curtains operated for entry and exit of forklifts as necessary • Lorries parked as close as possible to the sheds in order to reduce forklift travel • Screen curtains fitted to lorries as necessary

19. Odour Complaint Form

Argoed Poultry Unit		Date Recorded:	Reference No:
Name and address of caller			
Telephone			
Location of caller in relation to installation			
Time and date of complaint			
Date, time and duration of offending odour			
Callers description of odour			
Has the caller any other comments on odour?			
Weather conditions			
Wind strength and direction			
Any previous complaints relating to this odour?			
Any other relevant information?			
Potential odour sources that could give rise to the complaint			
Operating conditions at the time of the offending odour			
Follow up – date and time caller contacted			
Action taken			
Amendment requirement to Odour Management Plan			
Form completed by (print)		Signed and date	

20. Odour Report Form

Odour Report Form for Argoed Poultry Unit					Date :	
Time of test						
Location of test						
Weather conditions (dry, rain, fog, snow etc.)						
Temperature (very warm, warm, mild, cold or degrees if known)						
Wind strength (none, light, steady, strong, gusting or use Beaufort Scale if known)						
Wind direction (e.g. from North East)						
Intensity (see below)						
Duration (of test)						
Constant or intermittent in this period or persistence						
What does it smell like?						
Receptor sensitivity (see below)						
Is the source evident?						
Any other comments or observations						

Sketch a plan of where the test was taken, the potential source (s).

Intensity		**Receptor sensitivity**
0 No odour	4 Strong odour	Low (e.g. footpath, road)
1 Vary faint odour	5 Very strong odour	Medium (e.g. industrial or commercial workplaces)
2 Faint odour	6 Extremely strong odour	
3 Distinct odour		

	Ref: German Standard VDI 3882, Part 14	High (e.g. houses, pub / hotel etc)