

**BPEX MODEL TEMPLATE B3.5 6A**  
**Environmental Risk Assessment**

**Farm name:** Carkin Moor Farm **Operator:** S Ward & J Lee **Permit number:** EPR/KP3002LX/A001

**Table 1 Assessment of Odour Risk**

| What do you do that can harm and what could be harmed? | Managing the risk  | Assessing the risk                      |  |                             |                                      |   |
|--|--|---|--|-----------------------------|--------------------------------------|---|
| Hazard   | Receptor   | Pathway                                 | Risk management  | Probability of exposure     | Consequence                          | What is the overall risk?   |
| What has the potential to cause harm?                  | What is at risk? What do I wish to protect?                  | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs, who is responsible for what?   | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence |
| Odour from feed delivery and storage                   | Neighbouring dwelling houses within 400m of the installation | Air                                     | Measures as described in 'How to comply with your environmental permit for intensive farming V2 Jan 2010'(EPR 6.09 Sector Guidance Note)<br><br>Odour Management Plan in place due to sensitive receptors within 400m. | Unlikely                    | Odour annoyance                      | Not significant   |

| What do you do that can harm and what could be harmed? | Managing the risk                           | Assessing the risk                      |   |                             |                                      |   |
|--|---|---|---|-----------------------------|--------------------------------------|---|
| Hazard   | Receptor                                    | Pathway                                 | Risk management   | Probability of exposure     | Consequence                          | What is the overall risk?   |
| What has the potential to cause harm?                  | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs, who is responsible for what?  | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence |
|  |   |   | <p>Feed delivery sealed to minimise atmospheric dust. Any spillage of feed around the bins is immediately cleaned up.</p> <p>The condition of feed bins is checked regularly for integrity, so that any damage or leaks can be identified</p> <p>All feed ingredients are stored in covered silos.</p> <p>The unit is relatively isolated so there is minimal risk of dust causing direct odour nuisance.</p> |                             |                                      |   |

| <b>What do you do that can harm and what could be harmed?</b>   | <b>Managing the risk</b>                                     | <b>Assessing the risk</b>                      |  |                                    |   |  |
|---|--|--|--|------------------------------------|---|--|
| <b>Hazard</b>   | <b>Receptor</b>  | <b>Pathway</b>                                 | <b>Risk management</b>   | <b>Probability of exposure</b>     | <b>Consequence</b>                          | <b>What is the overall risk?</b>   |
| <b>What has the potential to cause harm?</b>  | <b>What is at risk? What do I wish to protect?</b>           | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs, who is responsible for what?</b>  | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b> | <b>What is the risk that still remains? The balance of probability and consequence</b> |
| Odour from the manufacturing and selection of feed  | Neighbouring dwelling houses within 400m of the installation | Air  | No milling and mixing on site.<br><br>Feed specifications will be prepared by the feed compounder's nutritionist.  | Unlikely                           | Odour annoyance                             | Not significant  |
| <ul style="list-style-type: none"> <li>• Odour arising from problems with housing ventilation system</li> <li>• Inadequate air movement in the house leading to high humidity and wet litter</li> </ul> | Neighbouring dwelling houses within 400m of the installation | Air  | Measures as described in 'How to comply-Intensive Farming'.<br>The ventilation system is adjusted by computer controls according to the requirements of the birds.<br>The ventilation system will be designed to efficiently remove moisture from the houses. All houses have the same Fumus 2 | Unlikely                           | Odour annoyance                             | Not significant  |

| What do you do that can harm and what could be harmed?   | Managing the risk  | Assessing the risk                      |  |                             |                                      |   |
|--|--|---|--|-----------------------------|--------------------------------------|---|
| Hazard   | Receptor   | Pathway                                 | Risk management  | Probability of exposure     | Consequence                          | What is the overall risk?   |
| What has the potential to cause harm?  | What is at risk? What do I wish to protect?                  | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs, who is responsible for what?   | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence |
| <ul style="list-style-type: none"> <li>Inadequate system design causing poor dispersal of odours.</li> </ul>   |  |   | ventilation system with computer control.<br><br>Stocking density maintained at or below levels set out in Welfare Regulations.  |                             |                                      |   |
| <ul style="list-style-type: none"> <li>Litter management.</li> <li>Odours arising from wet litter.</li> <li>The use of insufficient or poor quality litter. Spillage of water from the drinking system.</li> <li>Disease problems</li> </ul> | Neighbouring dwelling houses within 400m of the installation | Air                                     | Measures as described in 'How to comply-Intensive Farming'<br><br>Controls on feed and ventilation by computer control (see above) help to maintain litter quality. Fully insulated and draught controlled buildings, which prevent condensation and damp patches. | Unlikely                    | Odour annoyance                      | Not significant   |

| What do you do that can harm and what could be harmed? | Managing the risk                           | Assessing the risk                      |   |                             |                                      |   |
|--|---|---|---|-----------------------------|--------------------------------------|---|
| Hazard   | Receptor                                    | Pathway                                 | Risk management   | Probability of exposure     | Consequence                          | What is the overall risk?   |
| What has the potential to cause harm?                  | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs, who is responsible for what?  | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence |
| resulting in wet litter.                               |   |   | <p>Stocking density within the Chicken Assured levels.</p> <p>A veterinary health plan is used and there are regular veterinary visits to help prevent disease outbreaks.</p> <p>Water wastage minimised by use of nipple drinkers with drip trays.</p> <p>Regular maintenance and correct positioning to avoid overflow from feed and drinking systems</p> <p>Surfaces prevent water ingress and arranged to</p> |                             |                                      |   |

| <b>What do you do that can harm and what could be harmed?</b>  | <b>Managing the risk</b>                                     | <b>Assessing the risk</b>                      |  |                                    |   |  |
|--|--|--|--|------------------------------------|---|--|
| <b>Hazard</b>  | <b>Receptor</b>  | <b>Pathway</b>                                 | <b>Risk management</b>   | <b>Probability of exposure</b>     | <b>Consequence</b>                          | <b>What is the overall risk?</b>   |
| <b>What has the potential to cause harm?</b>   | <b>What is at risk? What do I wish to protect?</b>           | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs, who is responsible for what?</b>  | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b> | <b>What is the risk that still remains? The balance of probability and consequence</b> |
|  |  |  | <p>avoid build-up of stagnant water</p> <p>Stocking density at optimal levels to prevent overcrowding.</p> <p>Building managed for optimum hygiene and cleanliness by using muck belts twice a week.</p> <p>Potentially odorous spillages (very unlikely) cleaned up promptly.</p> |                                    |   |  |
| <p>Carcase disposal:</p> <ul style="list-style-type: none"> <li>Inadequate storage of carcasses on site</li> </ul> | Neighbouring dwelling houses within 400m of the installation | Air  | <p>Measures as described in 'How to comply-Intensive Farming'</p> <p>There is no incinerator.</p>  | Unlikely                           | Odour annoyance                             | Not significant  |

| <b>What do you do that can harm and what could be harmed?</b>                                    | <b>Managing the risk</b>                                     | <b>Assessing the risk</b>                      |   |                                    |   |  |
|--|--|--|---|------------------------------------|---|--|
| <b>Hazard</b>  | <b>Receptor</b>  | <b>Pathway</b>                                 | <b>Risk management</b>  | <b>Probability of exposure</b>     | <b>Consequence</b>                          | <b>What is the overall risk?</b>   |
| <b>What has the potential to cause harm?</b>   | <b>What is at risk? What do I wish to protect?</b>           | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs, who is responsible for what?</b>   | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b> | <b>What is the risk that still remains? The balance of probability and consequence</b> |
| <ul style="list-style-type: none"> <li>On-site disposal of carcasses by incineration.</li> </ul> |  |  | Carcasses are collected every day in plastic buckets which are then transferred to a sealed freezer where they are held in a frozen state to stop disintegration and smells until collection by a licenced deadstock collector. |                                    |   |  |
| Buildings: <ul style="list-style-type: none"> <li>House clean out</li> </ul>                     | Neighbouring dwelling houses within 400m of the installation | Air  | Litter removal is done quickly and efficiently by our own staff. The process will be carried out in a few hours. The litter is loaded immediately onto trailers and taken off site.   | Likely                             | Odour annoyance                             | Not significant if carefully managed   |

| <b>What do you do that can harm and what could be harmed?</b> | <b>Managing the risk</b>                                     | <b>Assessing the risk</b>                      |   |                                    |   |  |
|---|--|--|---|------------------------------------|---|--|
| <b>Hazard</b>   | <b>Receptor</b>  | <b>Pathway</b>                                 | <b>Risk management</b>  | <b>Probability of exposure</b>     | <b>Consequence</b>                          | <b>What is the overall risk?</b>   |
| <b>What has the potential to cause harm?</b>                  | <b>What is at risk? What do I wish to protect?</b>           | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs, who is responsible for what?</b>   | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b> | <b>What is the risk that still remains? The balance of probability and consequence</b> |
|   |  |  | Wind direction and land and weather conditions observed.<br>Potentially odorous spillages (very unlikely) cleaned up promptly.  |                                    |   |  |
| Odour arising from manure/dirty water storage and spreading   | Neighbouring dwelling houses within 400m of the installation | Air  | Underground dirty water tank is covered, so reducing risk of odour/emissions.<br><br>No spreading on operator owned/managed land. All litter and dirty water exported to third party. | Unlikely                           | Odour annoyance                             | Not significant if carefully managed.  |



**Table 2 Assessment of Noise Risk**

| What do you do that can harm and what could be harmed   | Managing the risk   | Assessing the risk                      |   |                             |                                      |   |
|---|---|---|---|-----------------------------|--------------------------------------|---|
| Hazard  | Receptor  | Pathway                                 | Risk management   | Probability of exposure     | Consequence                          | What is the overall risk?   |
| What has the potential to cause harm?   | What is at risk? What do I wish to protect?                         | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence |
| <p>Noise problems from large vehicles travelling to and from the farm.</p> <p>Mobile source</p> | <p>Neighbouring dwelling houses within 400m of the installation</p> | <p>Air</p>                              | <p>Measures as described in 'How to comply-Intensive Farming'</p> <p>Vehicles are required to be driven on to and off site with due consideration for neighbours</p> <p>Deliveries of feed are made only during the daytime, if possible, so that disturbance is minimised</p> <p>Catching of birds takes place during the night and are of short duration with minimum stress caused. All vehicles</p> | <p>Unlikely</p>             | <p>Noise annoyance</p>               | <p>Not significant if managed carefully</p>                                     |

| What do you do that can harm and what could be harmed | Managing the risk                           | Assessing the risk                      |   |                             |                                      |   |
|---|---|---|---|-----------------------------|--------------------------------------|---|
| Hazard  | Receptor                                    | Pathway                                 | Risk management   | Probability of exposure     | Consequence                          | What is the overall risk?   |
| What has the potential to cause harm?                 | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence |
|   |   |   | <p>are maintained so as to minimise noise. Potholes around the site will be repaired as necessary.</p> <p>All vehicles maintained so as to minimise engine noise and are driven slowly to and from the site. Engines to be switched off when not in use</p> <p>Roads and tracks maintained to minimise noise produced</p> <p>Noise Management Plan in place as there are sensitive receptors within 400m.</p> |                             |                                      |   |

| <b>What do you do that can harm and what could be harmed</b>   | <b>Managing the risk</b>                                     | <b>Assessing the risk</b>                      |  |                                    |   |  |
|--|--|--|--|------------------------------------|---|--|
| <b>Hazard</b>  | <b>Receptor</b>  | <b>Pathway</b>                                 | <b>Risk management</b>   | <b>Probability of exposure</b>     | <b>Consequence</b>                          | <b>What is the overall risk?</b>   |
| <b>What has the potential to cause harm?</b>   | <b>What is at risk? What do I wish to protect?</b>           | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs – who is responsible for what?</b>   | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b> | <b>What is the risk that still remains? The balance of probability and consequence</b> |
| Small vehicles travelling to and from the farm eg staff and visitors' cars, courier van deliveries, etc<br><br>Mobile source | Neighbouring dwelling houses within 400m of the installation | Air  | Measures as described in 'How to comply-Intensive Farming'<br><br>The farm manager lives on site which will minimise movements. Catching often takes place at night so a catcher's van will arrive during night-time periodically. It will be a modern vehicle and well maintained. Other vehicles movements will be during normal working hours and therefore seen as low risk. | Unlikely                           | Noise annoyance                             | Not significant  |

| <b>What do you do that can harm and what could be harmed</b>   | <b>Managing the risk</b>                                     | <b>Assessing the risk</b>                      |  |                                    |   |  |
|--|--|--|--|------------------------------------|---|--|
| <b>Hazard</b>  | <b>Receptor</b>  | <b>Pathway</b>                                 | <b>Risk management</b>   | <b>Probability of exposure</b>     | <b>Consequence</b>                          | <b>What is the overall risk?</b>   |
| <b>What has the potential to cause harm?</b>                   | <b>What is at risk? What do I wish to protect?</b>           | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs – who is responsible for what?</b>   | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b> | <b>What is the risk that still remains? The balance of probability and consequence</b> |
| Feed transfer from lorry to bins and tanks<br><br>Fixed source | Neighbouring dwelling houses within 400m of the installation | Air  | <p>Feed is brought to the site by a modern vehicle and regularly maintained to minimise excessive noise. It is unlikely to be used outside of normal working hours.</p> <p>Vehicles are well maintained and designed so that noise during feed transfer is minimised</p> <p>Conveyors and augers not operated when empty</p> <p>Blower and vacuum type delivery vehicles fitted with low noise units</p> | Unlikely                           | Noise annoyance                             | Not significant  |

| <b>What do you do that can harm and what could be harmed</b> | <b>Managing the risk</b>  | <b>Assessing the risk</b>                      |  |                                    |   |  |
|--|---|--|--|------------------------------------|---|--|
| <b>Hazard</b>  | <b>Receptor</b>   | <b>Pathway</b>                                 | <b>Risk management</b>   | <b>Probability of exposure</b>     | <b>Consequence</b>                          | <b>What is the overall risk?</b>   |
| <b>What has the potential to cause harm?</b>                 | <b>What is at risk? What do I wish to protect?</b>                              | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs – who is responsible for what?</b>   | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b> | <b>What is the risk that still remains? The balance of probability and consequence</b> |
| Operation of fans<br><br>Fixed source                        | Neighbouring dwelling houses within 400m of the installation                    | Air  | Efficient fans used and maintained in good condition to avoid excessive noise<br><br>Forced ventilation systems with automated controls to minimise run time   | Unlikely                           | Noise annoyance                             | Not significant  |
| Alarm system and standby generator<br><br>Fixed source       | Neighbouring dwelling houses within 400m of the installation, staff and poultry | Air  | Weekly tests are carried out (required by law) during normal working hours. Equipment is regularly maintained to minimise problems to minimise emergency situations. The generator is housed in a purpose- built soundproof container. | Unlikely                           | Noise annoyance                             | Not significant  |
| Chickens<br><br>Mobile source                                | Neighbouring dwelling houses  | Air  | Noise from the birds is not considered to be significant as they are housed in very  | Unlikely                           | Noise annoyance                             | Not significant  |

| <b>What do you do that can harm and what could be harmed</b> | <b>Managing the risk</b>                                     | <b>Assessing the risk</b>                      |  |                                    |   |  |
|--|--|--|--|------------------------------------|---|--|
| <b>Hazard</b>  | <b>Receptor</b>  | <b>Pathway</b>                                 | <b>Risk management</b>   | <b>Probability of exposure</b>     | <b>Consequence</b>                          | <b>What is the overall risk?</b>   |
| <b>What has the potential to cause harm?</b>                 | <b>What is at risk? What do I wish to protect?</b>           | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs – who is responsible for what?</b>   | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b> | <b>What is the risk that still remains? The balance of probability and consequence</b> |
|  | within 400m of the installation                              |  | well insulated buildings which minimise any noise during the growing period. If the chickens are caught during the night, this operation is done in darkness so the birds are kept calm and quiet. |                                    |   |  |
| Personnel<br>Mobile source                                   | Neighbouring dwelling houses within 400m of the installation | Air  | Staff, catchers and contractors are required to do their job quietly without excessive noise from shouting and use of radios outside, etc.   | Unlikely                           | Noise annoyance                             | Not significant  |

| <b>What do you do that can harm and what could be harmed</b> | <b>Managing the risk</b>                                     | <b>Assessing the risk</b>                      |  |                                    |   |  |
|--|--|--|--|------------------------------------|---|--|
| <b>Hazard</b>  | <b>Receptor</b>  | <b>Pathway</b>                                 | <b>Risk management</b>   | <b>Probability of exposure</b>     | <b>Consequence</b>                          | <b>What is the overall risk?</b>   |
| <b>What has the potential to cause harm?</b>                 | <b>What is at risk? What do I wish to protect?</b>           | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs – who is responsible for what?</b>   | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b> | <b>What is the risk that still remains? The balance of probability and consequence</b> |
| Repairs  | Neighbouring dwelling houses within 400m of the installation | Air  | <p>If repairs to the site are required, the work is undertaken with due regard for possible noise nuisance and during the normal working day</p> <p>In the event of major repair work being undertaken which is likely to cause significant noise and disruption, neighbouring residents will be notified in advance</p> | Unlikely                           | Noise annoyance                             | Not significant  |

## FUGITIVE EMISSIONS

**Table 3 Assessment of Fugitive Emissions Risk**

| What do you do that can harm and what could be harmed   | Managing the risk   | Assessing the risk                      |  |  |  |  |
|---|---|---|--|--|--|--|
| Hazard  | Receptor  | Pathway                                 | Risk management  | Probability of exposure  | Consequence  | What is the overall risk?  |
| What has the potential to cause harm?   | What is at risk?<br>What do I wish to protect?  | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?  | How likely is this contact?  | What is the harm that can be caused?   | What is the risk that still remains? The balance of probability and consequence. |
| <b>To air</b>   |   |   |  |  |  |  |
| Dust (including bio aerosols)<br><br>Sources:<br><ul style="list-style-type: none"> <li>• Litter</li> <li>• Feed</li> </ul> | Neighbouring dwelling houses within 400m of the installation:<br><ul style="list-style-type: none"> <li>• Nuisance</li> <li>• Contributes to odours</li> <li>• Human health (inhalation)</li> </ul> Surrounding vegetation:<br>Covers leaves and inhibits photosynthesis<br><br>Surrounding land:<br>Nutrient | Air                                     | Litter is tipped into trailers from minimum height and any spillage is swept with a mechanical brush and pressure washed into a dirty water tank. Regular clearing of dust to prevent build up within buildings, on roofs and around vents, as part of the disease control strategy. The Fumus 2 is an exhaust air chimney with intake, so air is also expelled from the roof as well as fresh air drawn in. | Dust is unlikely to travel outside of the site boundary. The prevailing wind is away from neighbouring houses. | Nuisance: dust on surrounding vegetation, cars, clothing<br><br>Smothering and direct damage to nearby vegetation<br><br>Pigs/staff may get stressed and become unwell | Not significant if managed carefully   |



## FUGITIVE EMISSIONS

| What do you do that can harm and what could be harmed   | Managing the risk  | Assessing the risk                      |   |  |  |  |
|---|--|---|---|--|--|--|
| Hazard  | Receptor   | Pathway                                 | Risk management   | Probability of exposure  | Consequence  | What is the overall risk?  |
| What has the potential to cause harm?   | What is at risk?<br>What do I wish to protect?   | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact?  | What is the harm that can be caused?   | What is the risk that still remains? The balance of probability and consequence. |
|   | <p>enrichment of soils</p> <p>Contributes to respiratory problems for poultry and staff</p>  |   | <p>One inlet and one outlet.</p> <p>Muck belts are run twice per week with the muck removed directly from the site. This maintains the cleanliness of the environment in the building, and reduces potential for dust creation.</p> |  |  |  |
| <p>Ammonia</p> <p>Source:<br/>Poultry housing and litter/dirty water storage, removal and spreading</p> | <p>Neighbouring dwelling houses within 400m of the installation</p> <p>Poultry and staff: high levels can cause respiratory problems</p> | Air                                     | <p>Measures as described in 'How to Comply – Intensive Farming'</p> <p>Mitigation measures as for odour</p>   | <p>No detailed modelling required following screening by the Environment Agency.</p> | <p>Aerial deposition and direct toxic effect on trees</p> <p>Nutrient enrichment of soils and changes to</p> | Not significant  |

## FUGITIVE EMISSIONS

| What do you do that can harm and what could be harmed | Managing the risk  | Assessing the risk                      |  |                             |   |  |
|---|--|---|--|-----------------------------|---|--|
| Hazard  | Receptor   | Pathway                                 | Risk management  | Probability of exposure     | Consequence   | What is the overall risk?  |
| What has the potential to cause harm?                 | What is at risk?<br>What do I wish to protect?   | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?  | How likely is this contact? | What is the harm that can be caused?  | What is the risk that still remains? The balance of probability and consequence. |
|   | <p>Also perceived as a nuisance as it contributes to odours</p> <p>Surrounding vegetation: direct toxic effect and changes to sensitive ecosystems</p> <p>Surrounding land: Nutrient enrichment and acidification of soils</p> |   | <p>Litter kept in a dry and friable condition.<br/>Regularly mucked out with muck belts<br/>Feed formulated to match flock requirements and to minimise amount of ammonia produced.</p> <p>Rations under periodic review</p> <p>Ventilation control systems designed to provide optimal environment and regularly monitored and maintained.</p> <p>Dirty water stored in below ground sealed</p> |                             | <p>sensitive ecosystems</p> <p>Respiratory problems in humans and mammals</p> |  |

## FUGITIVE EMISSIONS

| What do you do that can harm and what could be harmed | Managing the risk                              | Assessing the risk                      |  |                             |   |  |
|---|--|---|--|-----------------------------|---|--|
| Hazard  | Receptor                                       | Pathway                                 | Risk management  | Probability of exposure     | Consequence                             | What is the overall risk?  |
| What has the potential to cause harm?                 | What is at risk?<br>What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?  | How likely is this contact? | What is the harm that can be caused?    | What is the risk that still remains? The balance of probability and consequence. |
|   |  |   | tanks and removed through enclosed system and tankered off site.<br><br>Regular monitoring of dirty water tank contents and maintenance of facilities and equipment<br><br>Fully trained operators |                             |   |  |
| Zoonoses and notifiable diseases                      | Human health and livestock health              | Air/direct contact                      | Detailed biosecurity precautions in place, eg use of disinfectants, disposable overalls, cover boots, gloves, hand gel etc for staff   | Unlikely                    | Human and livestock health implications | Not significant if managed carefully   |

## FUGITIVE EMISSIONS

| What do you do that can harm and what could be harmed | Managing the risk                              | Assessing the risk                      |  |                             |                                      |  |
|---|--|---|--|-----------------------------|--------------------------------------|--|
| Hazard  | Receptor                                       | Pathway                                 | Risk management  | Probability of exposure     | Consequence                          | What is the overall risk?  |
| What has the potential to cause harm?                 | What is at risk?<br>What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?  | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence. |
|   |  |   | <p>and visitors to prevent the spread of disease.</p> <p>Secure site visitor policy</p> <p>Livestock monitored for signs of disease and incidents reported quickly</p> <p>Use of a health plan, with specialist veterinary input in place.</p> |                             |                                      |  |

## FUGITIVE EMISSIONS

| What do you do that can harm and what could be harmed   | Managing the risk  | Assessing the risk                      |  |                             |   |  |
|---|--|---|--|-----------------------------|---|--|
| Hazard  | Receptor   | Pathway                                 | Risk management  | Probability of exposure     | Consequence   | What is the overall risk?  |
| What has the potential to cause harm?   | What is at risk?<br>What do I wish to protect?   | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?  | How likely is this contact? | What is the harm that can be caused?  | What is the risk that still remains? The balance of probability and consequence. |
| <b>To water</b>   |  |   |  |                             |   |  |
| <p>Nutrients such as N and P plus organic matter</p> <p>Source: Wash water run off to nearby water course, litter and dirty water spreading</p> | <p>Nutrient leaching from soil to surface waters and groundwater, causing eutrophication and increased biochemical oxygen demand (BOD) of watercourses</p> | Land                                    | <p>Wash water run off is diverted to underground storage tanks. Rainwater soaks away naturally on this type of land. Rainwater from outside concrete apron areas and roofs is directed to the attenuation pond.</p> <p>Nearest surface water feature is a dyke running North of the installation towards the West.</p> <p>Feed spilt on yard/roadways during</p> | Unlikely                    | <p>Pollution of water course leading to eutrophication and poisoning of flora and fauna</p> | Not significant if managed carefully   |

## FUGITIVE EMISSIONS

| What do you do that can harm and what could be harmed           | Managing the risk                              | Assessing the risk                      |   |                             |   |  |
|---|--|---|---|-----------------------------|---|--|
| Hazard  | Receptor                                       | Pathway                                 | Risk management   | Probability of exposure     | Consequence   | What is the overall risk?  |
| What has the potential to cause harm?                           | What is at risk?<br>What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact? | What is the harm that can be caused?  | What is the risk that still remains? The balance of probability and consequence. |
|   |  |   | clean out is cleaned up<br><br>Manure taken directly off site   |                             |   |  |
| Spillages from storage and use of pesticides and fuel/chemicals | Vulnerable groundwater beneath site            | Land                                    | Management techniques employed aimed at avoiding or minimising use where possible<br><br>Use of approved chemicals only<br><br>Operators fully trained and all equipment regularly maintained to avoid any in-field spillage or discharge | Unlikely                    | Contamination of surface and groundwaters<br><br>Killing of flora and fauna | Not significant  |

## FUGITIVE EMISSIONS

| What do you do that can harm and what could be harmed   | Managing the risk   | Assessing the risk                      |   |                             |   |  |
|---|---|---|---|-----------------------------|---|--|
| Hazard  | Receptor  | Pathway                                 | Risk management   | Probability of exposure     | Consequence   | What is the overall risk?  |
| What has the potential to cause harm?                   | What is at risk?<br>What do I wish to protect?  | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?                                       | How likely is this contact? | What is the harm that can be caused?  | What is the risk that still remains? The balance of probability and consequence. |
|   |   |   | Medicines and chemicals stored in bunded containers, meeting all relevant regulatory requirements.<br><br>No fuel stored on site. |                             |   |  |
| <b>To land</b>  |   |   |   |                             |   |  |
| Ammonia from storage of dirty water, litter and housing | Sensitive nature and conservation sites identified in pre-application screening<br><br>Is there a SSSI within 500m? | Air                                     | There are no Ramsar, SSSI, SPA or SAC sites within 5km.   | Unlikely                    | Direct toxic effect on trees, nutrient enrichment and acidification of soils<br><br>Changes to sensitive ecosystems | Not significant if managed carefully   |

## FUGITIVE EMISSIONS

| What do you do that can harm and what could be harmed                                  | Managing the risk   | Assessing the risk                      |   |                             |   |  |
|--|---|---|---|-----------------------------|---|--|
| Hazard   | Receptor  | Pathway                                 | Risk management   | Probability of exposure     | Consequence   | What is the overall risk?  |
| What has the potential to cause harm?  | What is at risk?<br>What do I wish to protect?                  | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact? | What is the harm that can be caused?  | What is the risk that still remains? The balance of probability and consequence. |
| Waste materials, packaging, etc.<br><br>Source: Non-organic waste storage and disposal | Neighbouring dwellings and surrounding habitats and countryside | Air                                     | Policy to avoid production where possible<br><br>Dedicated storage areas and facilities<br><br>Collected by licensed contractors for recycling or disposal<br><br>Regular checks made for rubbish dumped by third parties | Unlikely                    | Amenity value of countryside spoilt by rubbish<br><br>Possibility of causing harm to wildlife | Not significant  |
| <b>Pests</b>   |   |   |   |                             |   |  |



## FUGITIVE EMISSIONS

| What do you do that can harm and what could be harmed  | Managing the risk                              | Assessing the risk                      |   |                             |   |  |
|--|--|---|---|-----------------------------|---|--|
| Hazard   | Receptor                                       | Pathway                                 | Risk management   | Probability of exposure     | Consequence   | What is the overall risk?  |
| What has the potential to cause harm?  | What is at risk?<br>What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact? | What is the harm that can be caused?  | What is the risk that still remains? The balance of probability and consequence. |
| Flies on e.g. manure heap could move off-site and affect nearby residents<br><br>Also, birds, rats, etc. | Neighbouring dwelling houses                   | Air                                     | Pest management programme in place<br><br>Manure heaps are off site as all muck is exported<br><br>Food sources covered and secure from pests | Unlikely                    | Flies and rats are a vector of pollution that can harm human health<br><br>Concerns about this pollution can cause offence and affect amenity | Not significant if managed carefully   |
| Emissions from biomass boiler  | N/A  | N/A                                     | N/A   | N/A                         | N/A   | N/A  |

## ACCIDENT RISK

**Table 4 Assessment of Accident Risk**

| What do you do that can harm and what could be harmed                    | Managing the risk  | Assessing the risk   |   |                             |  |  |
|--|--|--|---|-----------------------------|--|--|
| Hazard   | Receptor   | Pathway  | Risk management   | Probability of exposure     | Consequence  | What is the overall risk?  |
| What has the potential to cause harm?                                    | What is at risk? What do I wish to protect?  | How can the hazard get to the receptor?  | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact? | What is the harm that can be caused?                                 | What is the risk that still remains? The balance of probability and consequence. |
| Spillages from pesticide and biocide handling and storage areas escaping | Potentially polluting liquids flow over yard to clean water soakaways/surrounding land/vulnerable groundwater beneath site | Flowing over yard or through cracks in poor impermeable surface and through the ground | Accident Management Plan in place<br><br>Repair and maintain any infrastructure and have appropriate containment measures.<br><br>Any pesticides only applied by qualified staff.<br><br>Maintenance and regular inspection | Very unlikely               | Contamination of local groundwater and potential nearby abstractions | Not significant with measures indicated  |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed | Managing the risk                           | Assessing the risk                      |  |                             |                                      |  |
|---|---|---|--|-----------------------------|--------------------------------------|--|
| Hazard  | Receptor                                    | Pathway                                 | Risk management  | Probability of exposure     | Consequence                          | What is the overall risk?  |
| What has the potential to cause harm?                 | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?  | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence. |
|   |   |   | procedure designed and implemented<br><br>Covered foot dips on good concrete with drains located where overflowing gutters will not dilute<br><br>Regular inspection of facilities and records kept<br><br>Dedicated container for storage with impermeable hard |                             |                                      |  |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed      | Managing the risk                           | Assessing the risk                      |   |                             |  |  |
|--|---|---|---|-----------------------------|--|--|
| Hazard   | Receptor                                    | Pathway                                 | Risk management   | Probability of exposure     | Consequence  | What is the overall risk?  |
| What has the potential to cause harm?                      | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact? | What is the harm that can be caused?                                 | What is the risk that still remains? The balance of probability and consequence. |
|  |   |   | standing within bund<br><br>Removed from site by licensed contractor<br><br>Damaged or suspect packaging rejected at time of delivery |                             |  |  |
| Fuel oil in storage tank/vehicles escaping the containment | Land, groundwater                           | The surface water drainage system       | No fuel oil stored on the installation. Any spillage, from e.g. a vehicle tank, will be contained using materials held on site.       | Unlikely                    | Contamination of local groundwater and potential nearby abstractions | Not significant with measures indicated  |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed                             | Managing the risk                           | Assessing the risk                      |  |                             |                                      |  |
|---|---|---|--|-----------------------------|--------------------------------------|--|
| Hazard  | Receptor                                    | Pathway                                 | Risk management  | Probability of exposure     | Consequence                          | What is the overall risk?  |
| What has the potential to cause harm?   | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?  | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence. |
| Spillage of feed, litter or fuel due to operator error when loading and unloading | Land, groundwater                           | Land, the surface water drainage system | <p>Standard operating procedures applied for loading and unloading</p> <p>The feed is contained in a sealed system.</p> <p>Any spillage cleaned up immediately.</p> <p>Systems and equipment inspected regularly in accordance with the site</p> | Unlikely                    |                                      |  |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed | Managing the risk                           | Assessing the risk                      |  |                             |  |  |
|---|---|---|--|-----------------------------|--|--|
| Hazard  | Receptor                                    | Pathway                                 | Risk management  | Probability of exposure     | Consequence  | What is the overall risk?  |
| What has the potential to cause harm?                 | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?  | How likely is this contact? | What is the harm that can be caused?                                 | What is the risk that still remains? The balance of probability and consequence. |
|   |   |   | maintenance and inspection procedure.<br><br>Barriers in place to prevent collision where applicable.<br><br>Levels measured to prevent overfilling and sight gauge enclosed by guard.<br><br>All suppliers are supervised while on site |                             | Contamination of local groundwater and potential nearby abstractions | Not significant with the measures indicated                                      |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed | Managing the risk                                     | Assessing the risk                             |   |                                    |  |   |
|---|---|--|---|------------------------------------|--|---|
| Hazard  | Receptor  | Pathway  | Risk management   | Probability of exposure            | Consequence  | What is the overall risk?   |
| <b>What has the potential to cause harm?</b>          | <b>What is at risk? What do I wish to protect?</b>    | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs – who is responsible for what?</b>  | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b>                          | <b>What is the risk that still remains? The balance of probability and consequence.</b> |
|   |   |  | Overhead pipework routed through buildings.<br><br>No mill and mix on site.<br><br>Fully trained operators  |                                    |  |   |
| Below ground dirty water tanks overflow               | Dirty water flows over yard and into natural soakaway | The surface water drainage system              | A system of double tanks is employed which are interconnected which means that if one overfills, the dirty water flows into the other tank. The capacity of | Very unlikely                      | Contamination of local groundwater and potential nearby abstractions | Not significant with the measures indicated   |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed | Managing the risk                                  | Assessing the risk                             |   |                                    |  |   |
|---|--|--|---|------------------------------------|--|---|
| Hazard  | Receptor   | Pathway  | Risk management   | Probability of exposure            | Consequence  | What is the overall risk?   |
| <b>What has the potential to cause harm?</b>          | <b>What is at risk? What do I wish to protect?</b> | <b>How can the hazard get to the receptor?</b> | <b>What measures will you take to reduce the risk? If it occurs – who is responsible for what?</b>  | <b>How likely is this contact?</b> | <b>What is the harm that can be caused?</b>                          | <b>What is the risk that still remains? The balance of probability and consequence.</b> |
|   |  |  | one tank would take all the dirty water washings from one normal wash down, so the second tank is the backup system to prevent overflow. The tanks are emptied before the start of every clean out. |                                    |  |   |
| Failure to contain firewater or off-site pollutants   | Natural soakaways<br>Groundwater                   |  | Accident Management Plan in place<br><br>Firewater would be directed to the dirty water tanks and   | Unlikely                           | Contamination of local groundwater and potential nearby abstractions | Not significant with measures indicated. Significant containment capacity.              |



## ACCIDENT RISK

| What do you do that can harm and what could be harmed | Managing the risk                           | Assessing the risk                      |   |                             |                                      |  |
|---|---|---|---|-----------------------------|--------------------------------------|--|
| Hazard  | Receptor                                    | Pathway                                 | Risk management   | Probability of exposure     | Consequence                          | What is the overall risk?  |
| What has the potential to cause harm?                 | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence. |
|   |   |   | <p>removed by tankers.</p> <p>The attenuation pond is another containment point preventing direct release to surface or ground water in an emergency.</p> <p>Straw bales/sandbags are available for containment to protect natural soakaways,</p> |                             | and surrounding nearby land          |  |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed | Managing the risk                              | Assessing the risk                      |   |                             |  |  |
|---|--|---|---|-----------------------------|--|--|
| Hazard  | Receptor                                       | Pathway                                 | Risk management   | Probability of exposure     | Consequence                                | What is the overall risk?  |
| What has the potential to cause harm?                 | What is at risk? What do I wish to protect?    | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact? | What is the harm that can be caused?       | What is the risk that still remains? The balance of probability and consequence. |
|   |  |   | Contaminants to be contained and removed or directed to dirty water storage as appropriate.   |                             |  |  |
| Incorrect disposal of wash water                      | Natural soakaways, groundwater and nearby land | The surface water drainage system       | <p>Staff trained in correct operation procedures</p> <p>All drainage routes shown on drainage plan</p> <p>All wash water automatically collected to dirty water tanks from housing.</p> | Unlikely                    | Contamination of ground and surface waters | Not significant  |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed           | Managing the risk                           | Assessing the risk                      |  |                             |                                      |  |
|---|---|---|--|-----------------------------|--------------------------------------|--|
| Hazard  | Receptor                                    | Pathway                                 | Risk management  | Probability of exposure     | Consequence                          | What is the overall risk?  |
| What has the potential to cause harm?                           | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?  | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence. |
| Acts of vandalism which cause damage to structures and fittings | Surrounding land, surface and ground waters | Land, water                             | Site security. The sites can be accessed only via tracks which pass residences. Farm gates will be kept shut. CCTV is installed. Sheds, stores and equipment are securely locked at night. Signs are placed around the perimeter to warn unauthorised people against entering the site<br>There is no public footpath through or | Low                         | Contamination of soil and or water   | Low  |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed | Managing the risk                           | Assessing the risk                      |  |                             |                                      |  |
|---|---|---|--|-----------------------------|--------------------------------------|--|
| Hazard  | Receptor                                    | Pathway                                 | Risk management  | Probability of exposure     | Consequence                          | What is the overall risk?  |
| What has the potential to cause harm?                 | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?  | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence. |
|   |   |   | adjacent to any part of the installation.  |                             |                                      |  |
| Flooding and other storm damage                       | Surrounding land, surface and ground waters | Land, water                             | <p>There is no known flooding risk for this site.</p> <p>Good site layout and design, including attenuation pond.</p> <p>Maintenance of site infrastructure.</p> <p>Observe weather forecasts and weather warnings</p> | Low                         | Water and soil pollution             | Low  |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed | Managing the risk   | Assessing the risk                      |   |                             |  |  |
|---|---|---|---|-----------------------------|--|--|
| Hazard  | Receptor  | Pathway                                 | Risk management   | Probability of exposure     | Consequence  | What is the overall risk?  |
| What has the potential to cause harm?                 | What is at risk? What do I wish to protect?   | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what?   | How likely is this contact? | What is the harm that can be caused?   | What is the risk that still remains? The balance of probability and consequence. |
| Fire  | Livestock, staff, buildings, fuel and oils, chemicals, bedding, feed, local habitats and neighbouring dwellings | Air                                     | Refer to Fire Prevention Plan below.<br><br>Regular inspection and maintenance of equipment.<br><br>Fire alarms.<br><br>No fuel storage. No bedding storage. No biomass boiler. | Unlikely                    | Toxic smoke and other pollutants, surface run-off from firefighting water, surface run-off from failed storage tanks, pipes and stores<br><br>Increased numbers of dead animals for disposal | Low  |

## ACCIDENT RISK

| What do you do that can harm and what could be harmed | Managing the risk                           | Assessing the risk                      |   |                             |   |  |
|---|---|---|---|-----------------------------|---|--|
| Hazard  | Receptor                                    | Pathway                                 | Risk management   | Probability of exposure     | Consequence                                   | What is the overall risk?  |
| What has the potential to cause harm?                 | What is at risk? What do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? If it occurs – who is responsible for what? | How likely is this contact? | What is the harm that can be caused?          | What is the risk that still remains? The balance of probability and consequence. |
|   |   |   |   |                             | Dust and fibres from sheet building material. |  |

## ACCIDENT RISK

| Fire Prevention Plan                 |                          |  |                         |                    |                                      |
|--------------------------------------|--------------------------|--|-------------------------|--------------------|--------------------------------------|
| What can do harm and could be harmed |                          | Managing the risk  |                         | Assessing the risk |                                      |
| Hazard                               | Possible cause of fire   | Risk Management  | Probability of exposure | Consequence        | What is the overall risk?            |
| Chicken Shed                         | Electrical fire          | Electrics are checked. Fire extinguishers available in the control rooms. Sheds constructed in steel.  | Unlikely                | Fire               | Not significant if managed carefully |
| Chicken Shed                         | Fire spread from outside | The sheds are surrounded by either concrete or hardcore which is kept free of vegetation. Sheds constructed in steel. Escape doors at each end of the sheds and halfway down at each side. | Very Unlikely           | Fire               | Unlikely                             |

This document has been prepared by the applicant using the BPEX template.

While the Agriculture and Horticulture Development Board, operating through its BPEX division, seeks to ensure that the information contained within this document is accurate at the time of printing, no warranty is given in respect thereof and, to the maximum extent permitted by law, the Agriculture and Horticulture Development Board accepts no liability for loss, damage or injury howsoever caused (including that caused by negligence) or suffered directly or indirectly in relation to information and opinions contained in or omitted from this document.