

# ENVIRONMENTAL RISK ASSESSMENT

## Ryedale Poultry Farm

Ryedale Farm  
Melbourne  
York  
YO42 4ST

Environmental Permit No.	EPR/ EP3736JQ
Grid Reference	476061, 443021

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## Risk Assessment

Hazard	Receptors	Pathway	Risk Management Techniques	Probability of Exposure	Consequences	Overall Risk
Emissions to air: <b>Ammonia</b> output associated with livestock production from the ventilation of the poultry houses.	<p>1. Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites within 10km of the installation.</p> <p>2. Sites of Special Scientific Interest (SSSI) within 5km of the installation.</p> <p>3. National Nature Reserves (NNR), Local Nature Reserves (LNR), Ancient Woodlands and Local Wildlife Sites (LWS) within 2km of the installation.</p>	Aerial Wind-blown	<p>Refer to EA Pre-Application Report EPR/EP3736JQ/V003 (Date Completed 01/11/18) and to RPF 014 Detailed Ammonia Modelling Report (Date completed 06/03/19)</p> <p>The screening assessment conducted by EA identified process contributions for ammonia emissions at &gt;20% of ammonia critical level for Lower Derwent Valley SAC/SPA/Ramsar.</p> <p>Accurate detailed modelling on the dispersion and deposition of ammonia from the proposal has been conducted by a specialist consultant – AS Modelling &amp; Data Ltd.</p> <p>The modelling report has considered all (39) discrete habitat receptors that are located within the appropriate distance from the installation boundary (Table 5 in report).</p> <p><u>Summary of Findings</u> At 3 of the discrete receptors within Lower Derwent Valley Ramsar/SPA/SCA/Melbourne and Thornton SSSI (Receptor Numbers 18,19,20) the predicted process contribution to ammonia concentrations would be between the Environment Agency's lower and upper thresholds (4% and 20% for a SAC/SPA/Ramsar Site) of the Critical Level when set against the precautionary Critical Level of 1.0 µg/m<sup>3</sup>. The % process contributions in these instances range from 6.8% to 11.5%. The nitrogen deposition rates for these 3 receptors are however all at or below the Environment Agency's lower threshold of 4% of critical load. If, however, a Critical Level of 3.0 µg/m<sup>3</sup> for higher plants is assumed, then the process contribution to ammonia concentrations for the 3 receptors would all be below the Environment Agency's lower threshold of 4% of critical level.</p> <p>At all other sites considered, the preliminary and detailed modelling predicts that the process contribution to the annual ammonia concentration (and the nitrogen deposition rates) would be below the Environment Agency's lower threshold percentage of the relevant Critical Level or Critical Load for the site (4% of Critical Level or Load for a SAC/SPA/Ramsar Site, 20% of Critical Level or Load for a SSSI and 50% of Critical Level or Load for a LWS).</p> <p><u>From the findings of the report it is considered that the impact of ammonia emissions from the proposals onto nearby habitat sites would be negligible and not warrant any specialised ammonia reduction techniques or equipment.</u></p> <p>Ammonia output from installation will be managed by operating at all times in accordance with management techniques as set out in the Environmental Management System (RPF 010). These ensure that the overall operation of the farm is in accordance with <b>SGN EPR6.09 'How to Comply with Your Environmental Permit for Intensive Farming'</b> and in line with the requirements set out in Commission Implementing Decision (EU) 2017/302 15 February 2017) establishing best available techniques (BAT) conclusions, under directive 2010/75/EU of the European Parliament and of the Council, for the Intensive Rearing of Poultry and Pigs (<b>BAT Conclusions</b>).</p>			

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Hazard	Receptors	Pathway	Risk Management Techniques	Probability of Exposure	Consequences	Overall Risk
Emissions to air: <b>Odour</b> associated with livestock production from the ventilation of the poultry houses.	People living at Ryedale Farm dwelling, that is all within 400m of the installation boundary. (NB. Ryedale Farm is owned and occupied by the owners of Ryedale Poultry Farm and owners and operators of the adjacent Ryedale Farm Organics Recycling Facility)	Aerial Wind-blown	<ul style="list-style-type: none"> <li>Refer to current version of document RPF 005 Odour Management Plan (OMP) for potential sources, assessment of risks and problems, actions taken to minimise the risks and contingency plans.</li> <li>Staff training</li> </ul>	1. Odour could potentially impact on this dwelling unless correct management techniques are employed consistent with the OMP.	Nuisance – impact on quality of life	Low if we use the management techniques set out in the OMP.
Emissions to air: <b>Dust</b> associated with livestock production from the ventilation of the poultry houses and other activities including feed movements, vehicle movements and cleaning regimes.	There are no sensitive receptors within 100m of the installation boundary	Aerial Wind-blown	<ul style="list-style-type: none"> <li>The installation is operated in accordance with the Environmental Management System (RPF 010).</li> </ul>	There are no sensitive receptors within a range whereby dust exposure is likely to occur	If exposure were to occur: -  Nuisance – Dust on cars Dust on clothing  Health – Inhalation of dust	Very low if we operate in accordance with the Environmental Management System (RPF 010).
<b>Noise</b> associated with livestock production activities at the installation including transport vehicles, poultry movements, staff working, house ventilation, generator operation etc (see NMP)	People living at Ryedale Farm dwelling, that is all within 400m of the installation boundary. (NB. Ryedale Farm is owned and occupied by the owners of Ryedale Poultry Farm and owners and operators of the adjacent Ryedale Farm Organics Recycling Facility)	Aerial Wind-blown	<ul style="list-style-type: none"> <li>Refer to current version of document RPF 006 Noise Management Plan (NMP) for potential sources, assessment of risks and problems, actions taken to minimise the risks and contingency plans.</li> <li>Staff training.</li> <li>Visitor and contractor briefing</li> </ul>	1. Noise could potentially impact on this dwelling unless correct management techniques are employed consistent with the NMP.	Nuisance – impact on quality of life	Low if we use the management techniques set out in the NMP.

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Hazard	Receptors	Pathway	Risk Management Techniques	Probability of Exposure	Consequences	Overall Risk
<p><b><u>Pests:</u></b> Flies on used litter as it is moved away from the site. Flies breeding on deadstock and on deadstock movements into and away from site.</p>	<p>People living at Ryedale Farm dwelling, that is all within 400m of the installation boundary. (NB. Ryedale Farm is owned and occupied by the owners of Ryedale Poultry Farm and owners and operators of the adjacent Ryedale Farm Organics Recycling Facility)</p>	<p>Airborne</p>	<ul style="list-style-type: none"> <li>▪ No used litter (manure) is stored on site.</li> <li>▪ Litter is moved off site as soon as mucking out takes place, at the end of a crop cycle.</li> <li>▪ All litter is covered for movement (trailers are sheeted down).</li> <li>▪ Movement is by regular and approved contractors.</li> <li>▪ All deadstock bins are kept covered and locked.</li> <li>▪ Deadstock bins are cleaned and treated at the end of each crop cycle.</li> <li>▪ All deadstock (ABP) movements are in covered vehicles operated by approved and licensed ABP contractors.</li> <li>▪ Staff training</li> </ul>	<p>Used litter left unattended and deadstock bins left open could result in problems at sensitive receptors under certain climatic conditions (hot weather and easterly wind).</p> <p>Poor control of movements (uncovered / spillage) could result in transient problems at other locations, on route beyond the site boundary.</p>	<p>Potential for spread of diseases and adverse health impacts on vulnerable people.</p> <p>Nuisance</p>	<p>Very low if we use the management techniques and employ approved and licensed contractors.</p>
<p><b><u>Zoonoses</u></b> Associated with the rearing of broilers</p>	<p>See Pests</p> <p>Other livestock within the locality.</p>	<p>Airborne by pests (flies)</p>	<p>See Pests.</p> <p>Operation of strict biosecurity regimes, bird health and hygiene management and veterinary overview of livestock rearing (see Veterinary Health Plan) minimises potential for birds to contract illness.</p>	<p>See Pests</p>	<p>See Pests</p>	<p>Very low if we use the management techniques and employ approved and licensed contractors.</p>
<p>Emissions to Watercourses: -</p> <p><b><u>Spillage of feed.</u></b></p>	<p>Surrounding flora and fauna. (Animal life and vegetation in and around adjacent watercourses).</p>	<p>Waterborne</p>	<ul style="list-style-type: none"> <li>▪ Emergency action procedures are in place for all spills (see Emergency Action Plan).</li> <li>▪ All feed is supplied by approved and accredited contractors using dedicated feed vehicles and specifically designed dispense equipment.</li> <li>▪ Feed systems are sealed and protected from impact damage.</li> </ul>	<p>Spilt feed could transfer to watercourses if left unattended and washed with rain water.</p>	<p>Possible toxic effect on fauna.</p> <p>Increased BOD of watercourses</p>	<p>Very low if we use the management techniques.</p>

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Hazard	Receptors	Pathway	Risk Management Techniques	Probability of Exposure	Consequences	Overall Risk
Emissions to Watercourses: - <b><u>Spillage of litter or contaminated wash water.</u></b>	Surrounding flora and fauna. (Animal life and vegetation in and around adjacent watercourses).	Waterborne	<ul style="list-style-type: none"> <li>• Emergency action procedures are in place for all spills (see Emergency Action Plan).</li> <li>• Drainage system can be plugged or diverted to avoid any spill escaping from the site.</li> <li>• Litter is collected and moved by approved regular contractors.</li> </ul>	Spilt litter could result in transfer/leaching of organic material to watercourses if left unattended and if washed with rain water. Spilt litter may also contain cleaning chemicals.  Escape of wash water from drainage system or spillage from transport tankers will reach the adjacent watercourses if not contained.	Possible toxic effect on fauna.  Increased BOD of watercourses	Low if we use the management techniques
Emissions to Watercourses: - <b><u>Disposal of used chemicals</u></b> (e.g. foot dip chemical).	Surrounding flora and fauna. (Animal life and vegetation in and around adjacent watercourses).	Waterborne	<ul style="list-style-type: none"> <li>• Used chemicals such as foot dip contents are disposed into litter or directly into dirty water containment tanks.</li> <li>• Only DEFRA approved disinfectants are used – COSHH data sheets are held on site for all chemicals used.</li> <li>• Raw materials inventory is maintained.</li> <li>• Staff training</li> </ul>	Discarded chemical will reach the adjacent watercourses if it is not contained		Very low if we use the management techniques.
Emissions to Watercourses: - <b><u>Spillage of stored chemicals or fuel</u></b>	Surrounding flora and fauna. (Animal life and vegetation in and around adjacent watercourses).  <i>Also, health &amp; safety risk to people on site.</i>	Waterborne	<ul style="list-style-type: none"> <li>• Emergency action procedures are in place for all spills (see Emergency Action Plan).</li> <li>• Chemicals are stored in closed containers which are held in designated store and in/on banded storage to contain any spillage.</li> <li>• Drainage system can be plugged or diverted to avoid any spill escaping from the site.</li> <li>• Only DEFRA approved disinfectants are used – COSHH data sheets are held on site for all chemicals used.</li> <li>• Raw materials inventory is maintained.</li> </ul>	Spilt (liquid) chemical / fuel will transfer to adjacent watercourses if it is not contained	Toxic effect on surrounding flora and fauna.  Possible impact on people if there was a major spillage of a chemical (although highly unlikely as volumes stored are low)  Risk of fire and explosion	Very low if we use the management techniques

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