

Environmental Risk Assessment for Langstone Poultry Farm

Receptor	Source	Harm	Pathway	Probability of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Risk Management	Residual Risk
Local Human Population	Releases of particulate matter (dusts)	Harm to human health - respiratory irritation and illness	Air transport then inhalation	Low	High	Medium	<p>The nearest residential receptor is 130 metres away. Impact on employees covered by Health and Safety legislation.</p> <p>Poultry will be reared inside buildings with controlled ventilation through side fans. The sheds benefit from concrete floors and a straw litter spread before each crop.</p> <p>The highest potential for dust generation is during clean out between crops (there will be on average 2.5 crops per annum). At this time the inside of the building is cleaned via dry cleaning by means of compressed air which removes dust build up from the building internals and equipment before litter is removed and taken off site.</p> <p>Poultry litter is transported off site in covered trailers.</p>	<p>Doors to be kept shut during normal operation and during clean out procedures where safe to do so.</p> <p>Preventative maintenance programme for ventilation and control system to ensure correct level of ventilation for poultry health but no excessive ventilation.</p> <p>Daily checks for dust emissions will be carried out and appropriate action taken and recorded.</p> <p>Appropriate training of operational staff.</p>	Low
Local Human Population	Releases of particulate matter (dusts)	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Low	Low	Very low	As above	As above	Very Low

Receptor	Source	Harm	Pathway	Probability of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Risk Management	Residual Risk
Local Human Population, livestock and wildlife	Litter	Nuisance, loss of amenity	Air transport then deposition	Low	Medium	Low	There is a low potential for litter associated with the proposed intensive agriculture activity. There is potential for some litter arising from the staff welfare facilities.	All waste produced on site and in the staff welfare area will be deposited in a secure bin.	Very Low
Local Human Population	Debris and mud on local roads	Nuisance, loss of amenity, road traffic accidents	Vehicles entering and leaving the site	Low	Medium	Low	All vehicle movement will be on hardstanding or concrete. Poultry litter will be removed from site in covered trailers.	Daily checks during times of higher vehicle movements i.e. between crops. A road sweeper hired if necessary.	Very Low
Local Human Population	Odour	Nuisance, loss of amenity	Air transport then inhalation	Low	High	Medium	The nearest residential receptor is 130 metres away. Sensitive receptors may be sensitive to odour. Stack heights on ventilation system designed for dispersion of odour within accepted levels. Odour risk and management has been detailed in the site specific Odour Management Plan.	Odour risk and management has been detailed in the site specific Odour Management Plan.	Low

Receptor	Source	Harm	Pathway	Probability of Exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Risk Management	Residual Risk
Local Human Population	Noise and vibration	Nuisance, loss of amenity, loss of sleep	Noise through the air and vibration through the ground	Low	Medium	Low	<p>The nearest residential receptor is 130 metres away. Sensitive receptors may be sensitive to noise and vibration.</p> <p>Noise risk and management has been detailed in the site specific Noise Management Plan.</p>	Noise risk and management has been detailed in the site specific Noise Management Plan.	Very Low
Local Human Population	Pests (e.g. flies)	Nuisance, loss of amenity	Air transport and over land	Low	Low	Very Low	There is a low potential for pests associated with the pullet rearing on litter.	If pests are detected on site then action will be taken to control any infestation and pest management measures will be incorporated into the Environment Management System.	Very Low
Local Human Population	All on-site hazards; wastes; machinery and vehicles	Bodily injury	Direct physical contact	Low	High	Medium	Potential for an injury to be caused when plant, machinery and humans are all working in the same area.	<p>Use of reversing alarms on mobile plant.</p> <p>Signing in and induction of visitors / requirement to be accompanied in operational areas.</p> <p>Training of staff to ensure appropriate and safe use of all plant and equipment.</p>	Low

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Local human population and/or livestock gaining un-authorised access to the activities	All on-site hazards	People / livestock coming into contact with hazards	Direct physical contact.	Low	Medium	Low	The site has a secure perimeter fence and gates are locked wherever possible to prevent unauthorised pedestrian and vehicle access. All sheds are locked at all times when unoccupied by a member of staff. There are no public rights of way through the site.	Maintenance of security arrangements. Signing in and induction of visitors / requirement to be accompanied in operational areas.	Low
Local human population and/or livestock gaining un-authorised access to the activities	All on-site hazards	Arson and / or vandalism causing the release of polluting materials.	Arson – Emissions to air from fire. Liquids polluting water courses and/or ground water.	Low	Medium	Low	As above The closest watercourse is 170 m away. The site is not located in a groundwater source protection zone or a Nitrate Vulnerable Zone. No liquid chemicals are routinely stored; only disinfectant powder. Kerosene tank is secure and banded.	As above	Low
Ground water and surface waters	Fire on site leading to run-off from polluted firefighting waters	Contamination of ground water and aquatic ecosystems	Direct and indirect run-off	Low	High	Medium	Risk of deliberate or accidental fire is low due to a lack of combustible materials on site; poultry litter can self-combust when stored in large piles but it will not be stored on site.	No smoking policy on site. Maintenance of security arrangements to prevent unauthorised entry.	Low

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Local human population.	Smoke from site fire	Nuisance, loss of amenity, loss of sleep, respiratory irritation / illness	Air transport.	Low	High	Medium	Risk of deliberate or accidental fire is low due to a lack of combustible materials on site; poultry litter can self-combust when stored in large piles but it will not be stored on site.	No smoking policy on site. Maintenance of security arrangements to prevent unauthorised entry.	Low
Local human population and local environment	Flooding of site	Pollutants stored on site may be washed off site	Flood waters	Low	Medium	Low	The site is not located in a flood risk area. There are no hazardous or polluting materials routinely stored on site apart from kerosene in a secure bunded tank. Sufficient chemicals for disinfection procedure between crops are ordered in prior to clean out. Chemicals not routinely stored except disinfectant powder.	Site drainage will be maintained and cleared to minimise the risk of surface water flooding.	Low

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Protected sites - European sites and SSSIs.	Emissions to air	Harm to protected site through toxic contamination or smothering,	Air	Medium	Medium	Medium	<p>The nearest ecological receptors is Park House Wood SSSI 450 metres away from the site boundary to the North West.</p> <p>The ammonia screening assessment for current and proposed operation (see Non-Technical Summary accompanying this permit application) demonstrates that the proposed to change from layers and a deep pit system to pullet rearing on a mechanically ventilated, fully littered floor will result in significantly lower (3,900 kg NH₃) total ammonia emissions per year.</p>	Site operation will operate in accordance with a Site Specific Environment Management System	Low

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All surface waters close to and downstream of site.	Spillage of liquids	Acute effects: oxygen depletion, fish kill and algal blooms.	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Low	Medium	Low	<p>All fuel stores on site are bunded to contain any fuel spills. If any spills occur a spill containment kit will be used.</p> <p>Chemicals are used during the clean out procedure; they are not routinely stored.</p> <p>The site has a secure perimeter fence and gates are locked wherever possible to prevent unauthorised pedestrian and vehicle access. All sheds are locked at all times when unoccupied by a member of staff. There are no public rights of way through the site.</p> <p>The closest watercourse is 170 m away.</p>	<p>Pygas and diesel will be stored in bunded tanks and any off off-loading to be overseen.</p> <p>Spillage procedure will be implemented.</p> <p>Tyres will be accepted only if meet waste acceptance criteria and are not contaminated with flammable liquids.</p>	Low
All surface waters close to and downstream of site.	As above.	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Low	Medium	Low	As above	As above	Very low

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Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above.	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Low	Medium	Low	As above	As above	Very low
Groundwater	As above.	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Low	High	Medium	The site is not located in a groundwater source protection zone or a Nitrate Vulnerable Zone.	As above	Very low