

Your Ref: PAN-018463
Our Ref: B2UN3194

3rd March 2023

SENT BY EMAIL

FAO: Ceri Jones – Permitting Officer

Ceri.jones2@cyfoethnaturiolcymru.gov.uk

Dear Ceri,

Environmental Permitting (England and Wales) Regulations 2016

Substantial Variation to vary an Environmental Permit – Section 6.9: Intensive Farming - Part A (1)(a) Rearing poultry or pigs intensively in an installation with more than (i) 40,000 places for poultry - Llanshay Farm, Llanshay Lane, Knighton, Powys, LD7 1LW

We welcome the opportunity to comment on this substantial variation to vary an environmental permit. This assessment is based on actual or potential health risks from environmental exposures to chemicals, noise and extreme environmental events such as flooding.

Proposed Development

The applicant is applying for a substantial variation to the Permit to add additional ground to the installation boundary for an additional two poultry houses increasing broiler bird places to 200,000. The installation is currently permitted for 110,000 broiler places in two poultry houses. Birds will be housed at a day old and depopulated at the end of the rearing cycle, this will be done on all-out all-in basis. There will be approximately eight cycles per annum. At depletion the litter will be removed from the site and spread on applicant-controlled land as fertiliser. The units will be washed, disinfected and dried out prior to the cycle beginning again. All wash waters will be contained in sealed underground tanks. Wash water will be spread on applicant-controlled land.

Ventilation will be controlled by temperature, and air scrubbers will be installed on existing and proposed houses, with hot weather bypass extraction fans which are high velocity roof mounted. Heating will be provided by hot water blown radiators produced by LPG boilers. Temperature and humidity will be closely monitored on a daily basis to achieve bird comfort and a relative humidity of 55-60%, this should achieve litter with a dry matter content of between 60-70%, which is important in

minimising emissions. Water is provided via a nipple drinking system fitted with cups to reduce leakage and spills onto litter. Birds are fed a minimum of three diets during their growth, with gradually reducing levels of protein and phosphorous as the bird age increases, thereby reducing ammonia emissions. Fuel oil storage is bunded.

The site is rural, situated south-east of the outskirts of Knighton. The nearest residential dwellings are located approximately 400m from the poultry houses. The site is not situated in or within 250m of its boundary to a Ground Water/Source Protection Zone. There are no nearby watercourses.

Overall Conclusion

Most evidence concerning the health effects associated with intensive farming operations comes from occupational studies. While health effects among farmers exposed to high levels of bioaerosols are well documented, there is also a potential impact on respiratory health among communities, especially children, living near intensive farming operations. The most recent published review of the literature¹ recognised the potential impact on children living near to such sites but also concluded that the current evidence is not sufficient to recommend an increase in the distance required for a risk assessment from 100m to 250m; the latter being the limit used for composting facilities. Until more robust evidence becomes available, Public Health Wales recommends that local planning authorities and regulators ensure that, where there are sensitive receptors within 100m from the boundary of an intensive farming operation, the applicant undertakes a detailed risk assessment that objectively considers how the operator will effectively manage and minimise emissions including ammonia, odour and bioaerosols (through the application of Best Practical Means and industry practice).

Based upon the information submitted by the applicant and provided that Best Available Techniques (BAT) and management controls are applied as per relevant sector guidance, we have no grounds for objection.

We would highlight the need for a cumulative impact assessment where there are any existing or proposed poultry units at nearby locations.

¹ Douglas et al (2017) <https://doi.org/10.1016/j.ijheh.2017.10.019>

Public Health Risk Assessment

Regarding this assessment we outline the following comments for the regulator to consider and act upon.

In agreement with the regulator modelling of ammonia emissions has not been carried out due to the instalment of air scrubbing systems to existing and proposed poultry houses, which is anticipated by the applicant to reduce ammonia emissions by 82% when compared to the existing facility. **The regulator should be satisfied that such an emission reduction is achievable. Whilst would welcome any reduction to existing and future ammonia emissions, it is difficult to comment further on the scant information provided in the application.**

An odour assessment report has been submitted. In line with sector guidance, it concludes that probability of odour emission exposure is unlikely and has described various mitigation and best practice protocols. **It is important that emissions are adequately controlled and do not adversely impact on human health, especially given the perceived association between odour and ill health.**

Litter and wash water and whether these will be spread on operator-controlled land. **For any manure spreading activities, it is important that the applicant ensures that any local watercourses are not adversely impacted due to any increased nutrient loading. This should be detailed to the regulator in a manure management plan and include information on avoiding cumulative odour impacts from any other sources or activities.**

Dusts and bio-aerosols (airborne particles containing living organisms, skin fragments, toxins, and waste products) may have possible health effects including exposure to infectious diseases, allergic reactions, respiratory symptoms and lung function impairment. A fugitive emissions risk assessment has been detailed. **The regulator should ensure they are satisfied with the control measures outlined and whether they are appropriate to mitigate fugitive emissions, in accordance with BAT.**

All on-site storage of liquids should be accompanied by bunding in compliance with industry guidance. **The regulator should ensure they are satisfied with storage and control measures in place to avoid any emergency incidents, which could have off-site implications.** The applicant states that all wash waters will be contained in sealed underground tanks. **All waste storage facilities should be in line with the regulator's guidance to avoid any potential contamination of ground or water supplies.**

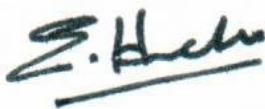
A noise management plan is included in the application and outlines measures in place to reduce noise from the proposed activities. **The regulator must be satisfied that the noise management plan effectively reduces noise and does not cause nuisance at nearby sensitive receptors. A noise survey at the nearest residential receptor location would help to provide reassurance of this.**

An Environmental Management System (EMS) summary has been included in the application. An updated EMS should be sought to ensure it covers all operational controls and procedures of the increased capacity of broilers. It is important that any onsite accidents or abatement failures do not have off-site consequences and there should detailed measures on operational controls and procedures for complaints. **The applicant should agree with the regulator a timetable for seeking external accreditation for their own EMS e.g. ISO4001.**

No details have been supplied on any surface flooding risk. **The regulator should be satisfied that the applicant has mitigation against any flooding should this be a flood risk area.**

We trust this will help with your overall decision and would be happy to review any additional information obtained by the Regulator in relation to these comments.

Yours sincerely



Ed Huckle. Principal Environmental Public Health Scientist, RCE Wales

Approved by



Andrew Kibble. Senior Manager, RCE Wales

On behalf of Environmental Public Health Service in Wales