

Non-Technical Summary

The proposals at Airdrie farm are to change the poultry business from a 32,000 bird free range egg unit to a 66,000 bird pullet rearing unit, largely using the existing building.(2 houses end to end).

There will be a small addition to the eastern end of the building but the development in terms of footprint of building is limited to 30m x 15.3m.

Building is scheduled for 2025.

The site lies approx. 5km south of the southern extremity of the Lower Nithsdale Nitrate Vulnerable Zone and does not therefore impact on it hydrologically. All surface water streams from the site also run southwards preventing any drainage migrating in that direction. Importantly the operations will change from one where direct deposition from ranging birds will cease. Also, manure generated will remain on the floor and become part of the dry litter until removal from the house at the end of the flock residence. This will be every 16 weeks and therefor approx. 3 flocks produced / year.

One day old birds will be introduced onto a littered floor (wood shavings) of a pre-sterilised building and kept for a period up to 16 weeks, at which stage they are classed as pullets and sold on as egg laying birds. On transfer to an egg producing unit, the house will be cleaned out, sterilised and a new batch of day old chicks introduced.

Both houses will be well insulated and therefore maintaining temperature is a key requirement, especially in the early stages of the birds' development.

Concrete floors with a DPM ensure there is no ingress of ground water although there are no known springs in the area proposed for the east house extension.

Sensors linked to the site computer will ensure the internal air quality conditions are maintained within the wide band throughout the birds' cycle within the unit, keeping temperatures around 320°C in the early stages and progressively reducing temperature down to 180°C when they leave as pullets.

Ventilation arrangements will include the existing roof mounted exhaust fans to accommodate hot summer days but the main ventilation for autumn, winter and spring will be via heat exchangers.

Heat supplied to the house will largely be through these heat exchangers but will be supplemented while the birds are young, by gas fired radiators.

Primary electricity will be through PV panels and hydro power. This will be augmented by mains electricity when necessary.

Water is supplied to birds by way of modern designed nipple drinkers, and daily volume consumed, recorded.

Feed is milled off- site and changed in composition throughout the life cycle to ensure the diet meets bird needs at any specific age and that 'waste' is minimised. Feed will be tailored by an accredited bird dietitian.

The principal emissions from the houses will be potentially ammonia from the degradation of faeces and dust. Ammonia however will be minimised by maintaining dryness throughout the cycle, preventing bio-degradation which could result in ammonia being released.

Likewise dust will be minimised through the installation of heat exchangers that also have air filtration systems built into them resulting in a high proportion of the dust being captured.

Tree shelter belts are already present in and around the site. These will act positively in removing and metabolising residual ammonia and dust emissions.

Full control of feed and litter quality will help prevent odours, dust and ammonia generation. Retaining nitrogen in the litter additionally contributes to its benefit as fertiliser when taken off site. All spent litter will be processed through a regional anaerobic digester before being returned and used as the principal farm fertiliser.