

5 Supporting information

Non-technical summary for introductory note

1. Longfield Poultry Farm is located approx. 0.35km northwest of the centre of the village of Hevingham in Norfolk on National Grid Reference TG 19529 21480. Comprises six existing poultry houses used for rearing broiler breeders (layers) with capacity for 24,310 in a single tier litter-based system. Propose change to broilers with capacity for 69,000 for either rearing and transport to a local slaughterhouse, or for brooding and export bird's offsite to finish rearing outdoors.
2. Ventilation and interiors of all the houses to be refurbished for rearing broilers and comply with SGN EPR 6.09 and Best Available Techniques (BAT) Conclusions Document - fan ventilation, fully littered floors, and non-leaking drinkers. Houses constructed with concrete floors poured over a continuous damp proof membrane, fully insulated walls and roofs to reduce heat loss and condensation. Besides installing insulated windows for welfare of broilers no material changes to the construction of any houses will be required.
3. Houses fitted with medium velocity extraction fan outlets for breeders (Vents greater than 3.5m high, fan efflux velocity greater than 2m/s) with capped outlets and fresh air inlets in the side walls. Propose replacement with new high velocity extraction fan outlets for broilers (Vents greater than 5.5m high, fan efflux velocity 11m/s) with uncapped fibreglass chimneys. Any remaining medium velocity, capped, fans will be decommissioned and outlets closed. Ammonia dispersion modelling on high velocity extraction fans predicted process contributions will be well below the critical level and load at Norfolk Valley Fens Special Area of Conservation approx. 1.5km to the west. Heat houses with package, direct, LPG-fired heaters to keep chicks warm. Ventilation is computer controlled and will remove moisture under all weather and seasonal conditions. Regularly adjust ventilation to match age, weight, and health requirements of chickens, and minimise ammonia, odour, and dust. Diesel-fired back-up emergency generator to guarantee sufficient air renewal for chicken welfare in case of any grid electricity outage.
4. Separate surface and dirty water drainage systems to prevent cross-contamination and pollution in underlying geology and groundwater. Installing the high velocity fan outlets and uncapped chimneys to mitigate ammonia will avoid dust settling on roofs and improve water quality. Uncontaminated roof water runoff houses 1-6 will be conveyed via existing gutters and down pipes into 4 stone filled soakaways per house for infiltration. Uncontaminated runoff the concrete apron will be conveyed overland into an existing, single catchpit with diverter and stone-filled soakaway next to the farm entrance for infiltration (Total 24 + 1 = 25 soakaways). Will continue using all the existing soakaways for infiltration when high velocity fan outlets have been installed and treatment is no longer required. During periods of destocking, litter removal and washout dirty water from house 1 only and off the concrete apron will continue to be diverted into a below ground dirty water tank for storage next to the entrance. Individual catchpits in houses 2-6 will continue to convey dirty water from inside via solid underground pipes direct into three dirty water tanks for storage in between those houses. No emission points outside of the boundary for any roof or surface water runoff. An offsite ditch adjacent the north side provides interception and infiltration for any runoff the offsite farmland to protect the poultry houses.

5. Use proprietary blend of dust extracted chopped straw/wood shavings or chopped straw to provide absorbent bedding, spread evenly over entire floor area prior to delivery of day-old chicks. Nipple drinkers with cups will provide drinking water without spillages to keep litter dry and minimise ammonia and odour and consumption will be monitored. Litter will be kept loose and friable and quality continually inspected to ensure it does not become excessively wet or dry to minimise ammonia, odour or dust. Nipple drinking system with cups provide chickens drinking water without spillages and keep litter dry.
6. Broiler chickens reared in batches, all-in-all-out for biosecurity. Arrive as day-old chicks from a hatchery to be reared to around 31 days of age then start destocking - a quarter will be removed from each house 'thinned' for slaughter. Remainder reared to around 38 days of age for slaughter. Normally 10 days for washing out and empty in between batches so approx. 7.6 batches per annum. Or arrive as day-old chicks from a hatchery for brooding until 26-28 days of age and exported to continue rearing outdoors on farms elsewhere. Normally 10 days empty for washing out and empty in between batches so approx. 9.6 batches per annum.
7. Feed broiler chickens ad-lib with a minimum of three pelleted compound diets appropriate to nutritional requirements at each stage of growth. Supplemented with synthetic essential amino acids, inorganic phosphates, and authorised additives to lower percentage crude protein and phosphorous in each diet and minimise nitrogen and phosphorous excretion. Store feedstuffs in fully enclosed package silos and feed delivery equipment to minimise waste, dust, and odour, located in between houses to protect them from collision damage.
8. Mortalities removed from houses daily and recorded. Store carcasses in secure, covered containers to minimise odour and flies and frequently removed offsite by an approved transporter under National Fallen Stock Scheme, no carcasses incinerator onsite.
9. Used litter removed immediately after houses destocked and empty. Exported offsite in covered trailers to minimise dust and odour for spreading on land to confer agricultural benefit or supplied as fuel to a local power station by a registered carrier. Houses and equipment are pressure washed, disinfected, and dried, before restocking. Dirty water exported offsite for spreading on land by a registered carrier.
10. Designated nature conservation sites within 5km are sensitive receptors - Norfolk Valley Fens Special Area of Conservation/Buxton Heath Site of Special Scientific Interest (SSSI), Cawston and Marsham Heaths SSSI, Hevingham Park Ancient Woodland/ Local Wildlife Site (LWS) Ivy Farm Meadow LWS and Dark Plantations LWS. Residential dwellings, a school, commercial and agricultural premises and public rights of way are sensitive receptors within 400m.