

Housing Review for Longfield Poultry Farm

Longfield Poultry Farm comprises six poultry houses in use with capacity for 24,310 broiler breeders (layers) in a single tier litter-based system. Propose change to rearing broilers with capacity for 69,000 places. Ventilation and interiors of all the houses to be refurbished for rearing broilers. Besides installing insulated windows for welfare of broilers no material changes to the construction or size of any houses will be required. Conducted a review of the housing in accordance with the template in the Environment Agency; EPR 6.09 Sector Guidance Note; How to comply; Version 2; pp23-25 and Appendix 7 Undertaking a housing review; Version 3; February 2012:

Table 1 Summary of poultry houses

Name of building	Function	Is Building Management BAT or not BAT?	Is Building Design BAT or not BAT?	Is it identified in Housing Improvement Plan?
Poultry houses Nos.1-6	Broiler chickens	BAT	BAT	Yes

Table 2 Housing improvement plan

Area needing improvement	What needs to be done – possible solutions	Proposed cost	Proposed timescale for completion	Timescale agreed with the Environment Agency
Design changes	To obtain permit for rearing broilers with a capacity more than 40,000 must install high velocity extraction fan outlets (Vents greater than 5.5m high, fan efflux velocity 11m/s) to provide ventilation and mitigate ammonia emissions	Operators have budgeted to retrofit ventilation fans and install fibreglass chimneys	Must be completed before bringing all six houses into use with a capacity for more than 40,000 places for broilers	Advised in response to the Agency duly making questions in the permit application
Management changes	N/a	N/a	N/a	N/a

Table 3 Housing design – the route to BAT

Condition	Best available techniques (BAT) used
Does the housing design conform to a BAT standard as set out in How to Comply?	<ul style="list-style-type: none"> • Constructed with concrete floors poured over a continuous damp proof membrane to prevent water ingress, fully insulated walls and roofs with a U-value of 0.4W/m²/°C to reduce condensation and heat loss. • Fan ventilation, fully littered floors, and non-leaking drinkers. • Houses for rearing broiler breeders fitted with medium velocity extraction fans outlets (Vents greater than 3.5m high, fan efflux velocity greater than 2m/s) with capped outlets and inlets in the side walls for fresh air. • To obtain a permit must be replaced with high velocity extraction fan outlets (Vents greater than 5.5m high, fan efflux velocity 11m/s) to provide ventilation and mitigate ammonia emissions. New package fans and uncapped fibreglass chimneys to be installed evenly along the ridges of all the houses. Any remaining medium velocity, capped fans will be decommissioned. • Maximise outlet heights by exhausting air above roof level through the ridge to disperse pollutants quickly e.g. ammonia, dust and odour, etc.

Table 2 Housing management - the route to BAT

Condition	Best available techniques (BAT) used
1. Is litter managed to the standards in How to comply?	<ul style="list-style-type: none"> • Start of every batch prior to chicks arriving new litter material evenly spread over entire floor area. Use proprietary blend of dust extracted chopped straw/wood shavings or chopped straw to provide absorbent bedding. • Keep litter loose and friable and quality will be inspected to ensure it does not become excessively wet or dry. Any changes in quality will be investigated and steps take to rectify the problem e.g. addition of extra litter or provision of heating to the problem area. • Nipple drinking system with cups installed, provide chickens drinking water without spillages to keep litter dry and minimise ammonia and odour.
2. Is ventilation managed to the standards in How to comply?	<ul style="list-style-type: none"> • Ventilation will match the health and welfare needs for the age and number of birds. • Air speeds across the house will not be largely different from one area to another and will be free from draughts.

	<ul style="list-style-type: none"> • Ventilation rates and house conditions will at all times be adequate to provide sufficient fresh air for the birds. The target rates for different weather conditions have been calculated in conjunction with the fan supplier. In particular accumulations of ammonia, hydrogen sulphide, carbon dioxide and carbon monoxide and dust will be avoided. • Computer controlled and regularly adjusting ventilation to match age, and weight and health requirements of the chickens, and to help keep droppings and litter dry and friable.
3. Is temperature managed to the standards in How to comply?	<ul style="list-style-type: none"> • Temperature will meet the health and welfare needs for the age and number of chickens. Extremes of temperature will be avoided, and draughts will be minimised. • Direct, LPG-fired heaters installed to provide heating and controlled to match heating needs to ventilation needs so heat is not wasted, by being drawn out of the houses.
4. Does the general management conform to the standards in How to comply?	<p>Management described in <i>EPR 6.09 Sector Guidance Note; How to comply...intensive farming; Version 2; 2010; Poultry housing design and management pp23-25</i> and <i>Best Available Techniques (BAT) Reference Document, 2017:-</i></p> <ul style="list-style-type: none"> • Floors and walls will be kept clean, washing and disinfecting end of every batch of chickens. • Cracks and damaged areas of floors and walls will be repaired.