

Housing Review

This Housing Review was undertaken following the methodology in Sector Guidance Note EPR 6.09 – How to comply with your environmental permit for intensive farming - Appendix 7 - Undertaking a housing review (Version 3, February 2012).

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?
Existing poultry houses 1, 2 & 3	Egg laying houses using aviary system and manure belts	BAT	BAT	Yes
Extensions to poultry houses 1, 2 & 3	Egg laying houses using aviary system and manure belts	BAT	BAT	No

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
Building design changes				
Existing poultry houses 1, 2 & 3	Existing natural ventilation system will be replaced with mechanical high-velocity roof fans.	Included within planned upgrade costs	Pre-operational By date of permit issue	Not applicable
Extensions to poultry houses 1, 2 & 3	Not applicable	Not applicable	Not applicable	Not applicable
Building management changes				
Existing poultry houses 1, 2 & 3	Installation of manure belts to remove manure rather than existing	Included within planned upgrade costs	Pre-operational By date of permit issue	Not applicable

	removal at end of production cycle			
Extensions to poultry houses 1, 2 & 3	Not applicable	Not applicable	Not applicable	Not applicable

Design of Housing

Requirement	BAT demonstrated
Does the housing design conform to a BAT standard as set out in How to Comply?	<p>Design meets requirements as described in the Best Available Techniques (BAT) Reference Document for the Intensive Rearing of Poultry or Pigs, and EPR 6.09 Sector Guidance Note “How to comply - Undertaking a housing review”, namely:</p> <p>Housing</p> <ul style="list-style-type: none"> • Wooden frame poultry house with external wood cladding and internal cement panel walls, originally constructed by manufacturer Harlow Bros (leading UK poultry housing manufacturer) and extension will be constructed by Harlow Bros. • Housing already has a concrete floor with a damp proof course to contain washwaters and prevent ingress of groundwater. The extensions will meet the same requirements. • Houses will be insulated: <ul style="list-style-type: none"> • Roof insulation shall have a U-Value of less than 0.3 W/m²/°C; and • The walls and doors insulation shall have a U-Value of less than 0.4 W/m²/°C. • Insulation will eliminate condensation on the inner linings and minimise heat loss and solar gain • Mechanical fan ventilated houses with a fully littered floor and equipped with non-leaking drinking system. • The houses will have insulated windows to provide natural lighting in addition to the computer controlled artificial lighting. This will improve welfare. <p>Ventilation</p> <ul style="list-style-type: none"> • The existing poultry houses are currently naturally ventilated. This will be converted to a mechanically ventilated system as part of the extension works. • No heating is required in the laying houses. • Computer controlled forced ventilation will be installed to match the health and welfare needs for the age and number of birds. The poultry houses will have ceiling mounted high-velocity ventilation systems with outlet vents greater than 5.5 metres above ground level and efflux velocity greater than 7m/s. Air inlets will be via controlled side wall vents which draw air over the litter and chickens to dry the litter, and exhaust air above roof level. Pop holes provide additional air inlets, and have canopies to prevent rainwater ingress

	<ul style="list-style-type: none"> Vents will be uncapped to prevent dust settling on clean roof and surface water run-off. All the fans will be low noise relative to typical rural background noise. <p>Equipment</p> <ul style="list-style-type: none"> All internal equipment is new. Purpose built feed silos and feeding equipment with nipple drinkers and drink cups to reduce wetting of the litter. New multi-tiered aviary system is to be installed including manure belts which will meet BAT requirements.
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Management of Housing

Requirement	BAT demonstrated
1. Is slurry, litter and manure managed to the standards in How to Comply?	<ul style="list-style-type: none"> Litter is inspected to ensure it is kept loose and friable. Inspections highlight areas where it could be excessively wet or dry. Top-up quantities of litter are stored on site to patch locations. Nipple drinkers with drip cups minimise water spillage. Purpose designed poultry house with impermeable concrete flooring and walls with damp-proof course to prevent ingress of seepage. Ventilation system prevents influx of rain. Concrete floor is inspected after each washing and disinfection cycle to highlight any areas of deterioration and repair as appropriate. Upgrade to existing housing includes installation of manure belts beneath aviary system to remove manure weekly with the storage container removed approximately every 7-10 days.
2. Is ventilation managed to the standards in How to Comply?	<ul style="list-style-type: none"> Existing housing Ventilation rates and house conditions are monitored by computer controlled ventilation system and at least twice-daily inspections by workers. This ensures ventilation rates are suitable for the prevailing weather conditions and that draughts can be minimised. Air inlets will be via controlled side wall vents which draw air over the litter and chickens to dry the litter and provide suitable fresh air for welfare purposes. Pop holes provide additional air inlets, and have canopies to prevent rainwater ingress. Dust-free white softwood shavings will be used to reduce dust within the poultry houses.
3. Is temperature managed to the standards in How to Comply?	<ul style="list-style-type: none"> Poultry houses are insulated to achieve suitable temperatures and reduce the requirement for heating. Temperature will be computer controlled to meet health and welfare needs for the age and number of birds. LPG fuelled heating is provided, controlled by computer to match ventilation rates, reduce draughts and to ensure the litter is kept appropriately dry.
4. Does the general management	<ul style="list-style-type: none"> Floors and walls will be constructed so that they can be easily cleaned and sanitised.

conform to the standards in How to Comply?	<ul style="list-style-type: none">• Following litter removal and washing, the walls and floors will be inspected to ensure cracks and damaged areas are identified and repaired.
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