Poultry Farm

Amiens Road, Gleneagle Qld

Site Based Environmental Management Plan - Addendum

Revision No 3

Prepared For

Arranmore Operations Pty Ltd

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1 INTRODUCTION

ACS Engineers Pty Ltd has been commissioned by Arranmore Operations Pty Ltd to prepare this addendum to their existing Site Based Environmental Management Plan (FSA 2010) to reflect the changes to the operation of their existing poultry farm from their planned shed refurbishment.

The refurbishment comprises of the reconstruction of five of the existing poultry sheds and the retention and retrofitting of the sixth shed for use as a machinery and hay shed. This addendum only address the operational and management changes as a result of the refurbishment. All identified impacts, their management strategies and corrective actions remain as detailed in the Site Based Environmental Management Plan (FSA 2010). This addendum should be retained with the Site Based Environmental Management Plan and used in conjunction with it.

2 OPERATIONAL DESCRIPTION

The poultry farm currently consists of six, 40 year old poultry sheds of 90m x 15m housing 150,000 meat chickens. The proposed refurbishment involves the demolition of five of the existing sheds and construction of five new tunnel ventilated poultry sheds. In order to maintain the full approval chicken numbers and comply with current maximum stocking densities (RSPCA), it is proposed to house the chickens in five larger sheds (134m x 15m). It is proposed to retain one of the six existing sheds as a farm machinery and hay shed. GFA for poultry housing would increase from 8,100m2 to 10,050m2. The refurbishment of the poultry will provide modern, energy efficient and best practice management poultry shedding and operation. Drawings ACS-DWG-180010-MCU-00 to 06 provide detail on the new farm layout, shedding dimensions, sensitive receptor and property access upgrades.

2.1 Operational Procedures

The poultry farm is proposed to continue to operate in accordance with the RSPCA Approved Farming Scheme Standards Operations Manual and the processor's Growers Manual requirements.

The owners of the farm have a contractual agreement with a Processor (Darwalla). The farm is responsible for growing chickens for supply to the processing plant owned by the nominated company. In simple terms, it is the farm's responsibility to provide the infrastructure and labour to grow the chickens. The processor provides the day old chickens and the feed.

Day old chickens are delivered in batches to the farm from a hatchery and are subsequently collected at various stages of the growing cycle and transported to a processing plant. Fully stocked, each shed will have up to 30,000 chickens. They are grown for approximately 48 – 51 days with progressive thin out which removes chickens for processing. This provides a range of chicken sizes for the market and keeps the total chicken weight down in the sheds as the chickens grow. A growing cycle is made up of the placement of new litter, the placement of day old chickens, the growing of the chickens and the progressive removal of chickens and cleanout. Each cycle takes approximately 59 - 70 days, depending on days between removal and placement, resulting in 5 to 6 cycles per year. At the end of each production cycle 50% of shed litter is removed from the site in covered vehicles and transported off site for use as fertilizer while the remaining 50% undergoes pasteurization which involves heaping spent litter inside the shed between batches to promote microorganism activity. Microorganisms degrade organic matter creating heat energy which kills pathogens and parasites once the temperature reaches 55^{o}c. The sheds are cleaned and disinfected. New litter is then laid on the shed floor at the brood end and reused litter across the remainder of the floor prior to the delivery of every new batch of day old chicks.

A typical rearing cycle consists of one to two day old chickens trucked to the site from a hatchery and released within the brooding sections until the chickens are old enough to maintain their own body temperature (typically at about two weeks of age). During the initial period, the internal shed temperature is maintained at about 32^{o}C decreasing to about 20^{o}C when the chickens are 3 weeks of age.

Initial harvesting of chickens is generally conducted at approximately 35 days. Thinning of chicken numbers at this stage supplies the market with smaller size chickens and provides additional space for growing larger chickens. Typically, about 45% of the chickens are removed at this time. This leaves the remaining 55% of the original number of chickens to be reared up to 51 days, depending on the size of the chickens required for market and other production requirements.

At the various stages of the cycle, the chickens will be transported live from the site by truck for off-site processing. The chickens will be placed into transport cages from inside the shed and loaded onto trucks by a forklift. Chicken collection will be generally undertaken during the day between 5am and 6pm. Collection takes approximately two days and will occur around the 33 and 38 day growing stage and at the final pickup at 51 days.

Over the growing cycle, a mortality rate of about 4% is expected. Dead chickens are collected from the sheds on a daily basis and placed into the on-site cool room. The dead chickens will be removed from the site weekly or in accordance with the procedures of the Site Based Management Plan.

2.2 General Description of Farm

- **Sheds, Pad, Roads**

  Upon demolition of each shed, the shed floor pad will be trimmed and extended where necessary to accommodate the new shed footprint. The floor level within each shed will be consistent across the entire shed area.

  The sheds run in a generally east west direction.

  A gravel ring road (minimum 3.5m wide) will be upgraded around the perimeter of the sheds with a service road between new sheds 4 and 5. The wider hardstand on the eastern end of the sheds will be retained to facilitate loading/unloading of trucks, grain silos and other supporting infrastructure.

  The proposed new sheds will have dimensions of 134m x 15m separated by approximately 17-19 m.

  The proposed gross floor area of each shed is 2010 m^2. Total gross floor area for development is 10,050 m^2.

- **Floors**

  The shed floors will be compacted concrete stabilised floors, covered with appropriate litter. At the end of each production cycle, 50% of shed litter is removed from the sheds and taken off site for use as fertiliser. Litter removed from the poultry shed is contained in covered vehicles. The remaining 50% undergoes a process called pasteurisation. The process of pasteurisation involves heaping up of spent litter inside the shed between batches to promote microorganism activity. When microorganisms degrade organic matter, heat energy is created. Once temperatures reach approximately 55^{o}C, pathogens and parasites are killed.

  Pasteurisation is considered much more environmentally friendly and sustainable over traditional chemical application and large open air composting.

- **Walls and roof**

  The new sheds will be constructed to the applicable Australian Standards and Building Code of Australia. The sheds will consist of a steel frame with colorbond or similar metal sheeting roof and a combination of colorbond or similar metal sheeting walls.

  Each will have a concrete wall around the base of the shed to prevent stormwater and vermin entering the sheds.

- **Insulation**

  Appropriate insulation will be installed in the roofs and walls of the new sheds, which are to be fully enclosed.

- **Tunnel ventilation**

  The new sheds will be designed to operate as fully tunnel ventilated, with no free range operation capability.

  Tunnel ventilation is designed to produce a constant environment for the chickens inside the sheds. Temperature is varied depending on the age of the chickens.

  Each shed will have four (4) gas heaters spaced along the length of the shed. On the opposite side of the sheds to the heaters, they are mirrored by 1 x 50" exhaust fan, plus an additional 2 x 50" exhaust fans on the eastern end which provide the minimum duty ventilation. In addition to the exhaust fans there are 12 x 50" tunnel fans.

  Six (6) fans will be on the western end of the sheds, with an additional three (3) on the northern side and three (3) on the southern side of the sheds.

- **Vermin Control**

  The sheds will be fully enclosed and vermin proofed. Procedures for managing the vermin are documented within the Site Based Management Plan.

- **Staff**

  The refurbished chicken farm will continue to operate with 2 full time equivalent staff. 4 casual/contract staff will also be employed during labour intensive activities such as shed clean out and chicken placement at each farm.

- **Access**

  All farm access will be via a proposed new access of Amiens Road through Lot 1 RP50220. The access will be designed and constructed to a standard suitable for the largest vehicle accessing the site. The existing access through Lot 22 RP223692 and Lot 23 RP841516 is to be abandoned.

- **Biosecurity**

  Biosecurity is a high priority for the operation of a poultry farm. All persons entering and leaving the farm will transit via the office to report to the farm manager and undertake the required biosecurity procedures..

- **Site Items**

  Existing ancillary buildings, primarily for storage purposes, will be retained. The existing gas tanks, office, manager's residences, generator shed, pump shed, machinery and chemical storage shed will be retained. A new dead bird cool room will be installed at the entry to the biosecurity area.

  See proposal plans for further details.

- **Stormwater Control**

  Stormwater generated by the development will be managed by existing grass swales and vegetated contour banks prior to discharge to the existing flow paths traversing the site.

  Each shed will be some 200 – 300mm above the surrounding land to prevent ingress of stormwater.

- **Landscaping**

  Existing vegetation plantings that will be removed to facilitate the rebuilding of the sheds will be replanted further to the west.

2.3 Farm Access

Currently farm vehicles access the site via a crossover with Amiens Rd that directs farm traffic across an access easement over Lot 22 RP223692 and Lot 23 RP841516. The right of access for Lot 24 RP841516 (the subject lot) over these lots is proposed to be formally extinguished.

A new crossover and access will be established off Amiens Road and through Lot 1 RP50220 as the only site access. The access will be designed and constructed to a standard suitable for the largest vehicle accessing the site. Refer to drawing ACS-DWG-180010-MCU-06. The proposed new property access means farm traffic will no longer travel past the dwellings located along the access easement, negating potential dust and noise emission impacts to these receptors. While feed delivery truck movements (264 per annum) can and have previously occurred at night, the location of the proposed new property access will remove the additional potential impact of light disturbance. The new access is located some 260m from the nearest sensitive receptor as compared to the existing access being 30m from the same sensitive receptor. Furthermore, the elevation of the new access is approximately 15m below the elevation of the receptor.

2.4 Dead Bird Management

Dead chickens will be removed from the sheds daily and stored in sealed containers (wheelie bins) within a dead bird cold-room located at the entry to the biosecurity area. Dead birds will be collected from the farm at least twice a week by an approved contractor, to an approved waste disposal facility. There will be no onsite disposal of dead poultry.

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APPENDICES

Appendix I - DRAWINGS