

**Department for Environment, Food and Rural Affairs**

**July 2009**

**COMPARTMENTS  
FOR PROTECTION AGAINST  
AVIAN INFLUENZA and NEWCASTLE DISEASE  
IN POULTRY BREEDING COMPANIES  
IN GREAT BRITAIN**

**SPECIFICATIONS FOR  
MANAGEMENT PROTOCOLS  
IN FLOCK FARMS**

*“Compartment means an animal subpopulation contained within one or more establishments under a common biosecurity management system with a distinct health status with respect to ... specific diseases for which required surveillance, control and biosecurity measures have been applied for the purpose of international trade”*

OIE Terrestrial Animal Health Code, 2008 edition.

## **SPECIFICATIONS FOR MANAGEMENT PROTOCOLS IN FLOCK FARMS**

**NOTE:** The paragraphs in bold type apply only to the GB Enhanced Standard. Paragraphs in plain type apply to both the EU Standard and the GB Enhanced Standard.

### Definitions

The “company” means the company making the application for compartment status.

The “producer” means the enterprise producing and supplying the bedding materials (Section 1), or producing and supplying the feed or other input (Sections 4 and 7).

“Multi-age” means a site at which there is no period during which the entire site is totally depopulated. It does not refer to a site where the birds are of different ages, but it is run on a ‘staged-in, all-out’ basis (Section 2).

“Multi-building” means a site at which there is more than one bird shed, and they are not connected by fully enclosed passageways.

“Heightened Risk Period” means any time when an outbreak of avian influenza or Newcastle disease has been confirmed within Great Britain; or when the flock farm falls within an EU protection, surveillance or restriction zone (Section 5).

(Note that, regardless of compartment status, all premises will remain subject to general disease control regulations under national and EU legislation).

The “External Operator” means an independent rodent control company which has a contract with the compartment to carry out rodent control on site (Section 13).

“Visitor” means any person who enters a premises who is not employed by the company to work at those premises as their principal work location. Note this means that a company employee whose principal work location is elsewhere is therefore defined as a visitor and must sign the visitor record accordingly. (Section 11).

**In all of the following Sections, the Company’s written management Protocol must contain the listed provisions as a minimum.**

### **1. BEDDING MATERIAL: PRODUCTION, TRANSPORT, STORAGE AND HANDLING**

- 1.1 The producer must either be under the ownership and management of the company, or there must be a written contract between the**

- company and the producer specifying the conditions of production, handling and transport.**
- 1.2 **The type of bedding materials must be specified (e.g. straw, wood shavings etc).**  
**In the case of wood shavings, it is considered that the risk of contamination with AI virus is so low that viricidal treatment is not necessary. In the case of straw, a period of at least 2 months in storage is considered sufficient to allow AI viruses to become denatured.**
- 1.3 The company's risk assessment must be presented, giving reasons why the company considers the risk from bedding material to be negligible, or viricidal treatment to be unnecessary.
- 1.4 The protocol must describe procedures by the company to audit the production, handling and transport procedures at the producer's premises, including the frequency of audits.
- 1.5 Immediately after production the bedding material must be suitably handled, or packaged, and stored prior to delivery to prevent contamination by birds or vermin.
- 1.6 The material must be transported to the compartment premises in conditions where it is protected from possible contamination by birds or vermin.
- 1.7 The material must be stored at the compartment premises in conditions where it is protected from possible contamination by birds or vermin.
- 1.8 When the time comes to use the bedding material, it must be handled and placed inside the bird sheds using methods which will prevent contamination by birds or vermin.

## **2. DISINFECTION OF BIRD SHEDS**

- 2.1 **If the site is multi-age, describe procedures for preventing access by bird catching teams and cleaning teams, and their vehicles, to the rest of the site.**
- 2.2 Procedure for removal and disposal of litter.
- 2.3 **Description of physical processes of de-greasing, washing, disinfecting, and drying out.**
- 2.4 **Specify disinfectant type, and concentration, and method of application.**
- 2.5 **Routine maintenance procedures to be conducted during empty time: e.g. check on insect concentrations, check on bird proofing, check on**

**condition and integrity of roof, maintenance of ventilation systems.**

### **3. DISINFECTION OF RE-USABLE EQUIPMENT**

- 3.1 Specify the items of equipment concerned (e.g. catching crates).
- 3.2 Specify the location of the cleaning procedure (there may be different locations and processes for different types of equipment).
- 3.3 Describe the disinfection procedure.
- 3.4 **Specify the type and concentration of disinfectant**
- 3.5 Place and method of storing the equipment after disinfection and prior to use, so that it is protected from contamination.

### **4. FEED: PRODUCTION, TRANSPORT, STORAGE AND HANDLING**

- 4.1 **The producer must either be under the ownership and management of the company, or there must be a written contract between the company and the producer specifying the conditions of production, handling and transport.**
- 4.2 The company must produce a risk assessment, giving reasons why the company considers the risk from feed material to be negligible.
- 4.3 Describe procedures by the company to audit the production, handling and transport procedures at the producers premises, including the frequency of audits.
- 4.4 **The production process must be specified, indicating the end product (e.g. pellets, mash etc.).**
- 4.5 **Conditions of heat treatment must be specified, indicating target temperature and minimum time period. OIE recommendations for the destruction of avian influenza viruses specify 70 ° C for 3.5 seconds, or 73.9 ° C for 0.51 seconds. EU specifies 70 ° C but does not specify a length of time.**
- 4.6 **During and after production the feed must be handled and stored through a system (augurs, hoppers etc) which is either dedicated to this company, or which has been thoroughly flushed out since any previous use either for feed not of the same standard, or not intended for the company.**
- 4.7 **For transport from the production site to the company premises the feed must be transported in vehicles which are either dedicated to this company, or which have been thoroughly cleaned out and disinfected since any previous use either for feed not of the same standard, or not**

**intended for the company.**

- 4.8 The feed must be handled and stored at the compartment premises in conditions where it is protected from possible contamination by birds or vermin.
- 4.9 The system for transferring the feed from storage to use in the bird sheds must ensure its protection from possible contamination by birds or vermin.

## **5. HEIGHTENED RISK PERIODS: EXTRA PRECAUTIONS**

- 5.1 **Visitors:** If an HPAI outbreak has occurred within 50 kms of the premises within the past 3 months, all visitors should be prohibited, except those that are essential for the welfare or survival of the birds. Routine maintenance by outside personnel must be suspended. However the visit ban shall not apply to official visits by officers of the veterinary authorities for the purposes of disease control or other statutory functions.
- 5.2 **Vehicles:** If an HPAI outbreak has occurred within 50 kms of the premises within the past 3 months, all vehicle entry to the premises should be prohibited, except in cases of exceptional and urgent need. Company vehicles which need to visit the site, e.g. for egg collection, should be routed through areas well away from the suspect or infected zones. Vehicle decontamination procedures should be reviewed and if necessary increased.
- 5.3 **Feed Delivery:** : If an HPAI outbreak has occurred within 50 kms of the premises within the past 3 months, arrangements should be made with the feed company so that lorries are disinfected off site, and visit the compartment premises first before any other deliveries.

**Apply additional decontamination prior to entry to the site, as above.**

- 5.4 **Staff and Equipment Movements between Compartment sites:** If an HPAI outbreak has occurred within 50 kms of the premises within the past 3 months, all movements to be banned except where absolutely necessary. Separate sites to be treated as far as possible as isolated units.
- 5.5 **Laboratory testing:** frequency of serology in laying flocks to be increased at least to the level required in EU Regulation xxxx/2009, namely:
  - i. If HPAI has been confirmed in GB within the past 6 months, do serology on 20 birds per compartment premises at least every 3 months.
  - ii. If the compartment premises falls within an area under movement controls according to EU legislation, do serology within one week of the outbreak and every 21 days thereafter on at least 20 birds per premises, plus virology on 20 tracheal/oropharyngeal swabs and 20 cloacal swabs at the same timing and frequency,

plus virology on 5 sick or dead birds (if present) at the same timing and frequency,  
plus clinical surveillance to be enhanced.

**AND, in addition to the above,  
If the outbreak of HPAI has been confirmed within 50 kms of the compartment premises within the past 3 months, increase serology to 20 birds per airspace per week.**

- 5.6 Risk Assessment to the whole Compartment: in the case of compartments comprising more than one premises, the entire structure of the compartment must be reviewed to assess increased levels of risk to other sites within it, and appropriate measures taken.
- 5.7. Instructions for compartment manager to confirm to Defra in writing at least every 14 days that the above procedures have been being carried out, and that all laboratory test results have been negative. To be sent either by post to Poultry Section, Animal Health, Hadrian House, Wavell Drive, Carlisle CA1 2TB, or by email to [LiveAnimalExports.Carlisle@animalhealth.gsi.gov.uk](mailto:LiveAnimalExports.Carlisle@animalhealth.gsi.gov.uk).

## **6. LABORATORY TESTING FOR ROUTINE MONITORING OF FLOCKS**

### **PART I. AVIAN INFLUENZA**

- 6.1 Routine serology must be carried out on each compartment premises at least once every 6 months.  
20 birds must be taken at random on the premises.  
The samples must be submitted to the national reference laboratory (VLA).  
The type of serological test is to be decided by VLA.  
This conforms with EU Regulation xxxx/2009.
- 6.2 **In addition the compartment will carry out extra serological testing either using VLA or a laboratory accredited for avian influenza serology testing under ISO 17025.**  
**The recommended statistical basis of sampling is 95%confidence/25%prevalence. This would indicate a maximum sample size of 11 birds per airspace. (Note that these figures apply to birds kept in a free-mixing barn floor system on the basis that the virus is likely to spread very rapidly; higher statistical standards are necessary for birds kept in cages).**
- 6.3 **Frequency of sampling: Rearing flocks must be sampled at least once within 28 days prior to the start of lay.**

**Flocks in lay (each airspace) must be sampled at intervals of no longer than 28 days (on the basis that this corresponds to the incubation period plus a few days in the egg store).**

- 6.4 Procedures for resolving inconclusive results: samples referred to VLA.

(Inconclusive results referred to VLA, and reported by VLA as negative, can be regarded as confirmed negative and recorded as such).

## **Part II. NEWCASTLE DISEASE**

- 6.5 **Describe vaccination schedule: frequency of vaccination, type of vaccine, route of administration.**
- 6.6 **If the company carries out sampling to confirm the desired immune response, provide details (this sampling is not obligatory).**
- 6.7 **If the flocks are not vaccinated, provide serology details similar to Avian Influenza.**

## **7. MISCELLANEOUS INPUTS (E.g calcium grit, oystershell, janitorial stores and consumables): PRODUCTION, TRANSPORT, STORAGE AND HANDLING**

- 7.1 The company's risk assessment must be presented, giving reasons why the company considers the risk from these items to be negligible, or viricidal treatment to be unnecessary.
- 7.2 **The process must be specified, indicating the end product.**
- 7.3 **Give details of any disinfection or sterilisation treatment, e.g. target temperature and minimum time period, if relevant.**
- 7.4 The item must be packed in packaging which will protect it from contamination by birds or vermin.
- 7.5 The item must be transported and stored at the compartment premises in conditions where it is protected from possible contamination by birds or vermin.

## **8. MONITORING OF PRODUCTION AND MORTALITY**

### **Part I. MORTALITY**

- 8.1 Procedure to be followed by site manager for daily recording of mortality.
- 8.2 How and where the daily record shall be kept.

- 8.3 Normal range of mortality rates to be expected.
- 8.4 Action levels: level of substantial and unexplained departure from expected mortality rates which must be reported immediately to company vet or other higher management level.

## **Part II. PRODUCTION**

- 8.5. Procedure and frequency for site manager to record growth figures
- 8.6 How and where the record shall be kept.
- 8.7 Normal range of growth rates to be expected.
- 8.8 Action levels: level of substantial and unexplained departure from expected growth performance which must be reported immediately to company vet or other higher management level.

## **9. MULTI-AGE SITES: ADDITION OR REMOVAL OF BIRDS**

- 9.1 Procedure for decontamination and control of vehicles at entry to site: specified gates, disinfection of tyres and wheel arches, control of movements within site.  
(Reference can be made to separate Vehicle Entry protocol).
- 9.2 **Description of status of catch teams: e.g. full time company employees, separate organisation under contract to company, etc.**
- 9.3 **Procedure for preventing access by the catching or delivery team and drivers to the rest of the site.**
- 9.4 **In the case of spent hens, procedure to transfer birds from company catching crates to vehicle transport crates.  
In the case of transfers from rearing site to laying site, full details of crate handling procedures**
- 9.5 Protective clothing provisions for catch/delivery teams.
- 9.6 Boot disinfection procedures for catch/delivery teams.
- 9.7 **How and where permanent record is kept, showing: date, time, identity of personnel, identity of vehicle, identity of birds and sheds involved.**

## **10. MULTI-BUILDING SITES: STAFF MOVEMENT CONTROLS**

- 10.1 **Detail of which members of staff are nominated to work in which buildings, and whether staff members can, or cannot enter buildings outside their own allocation.**



- 10.2 **Detail of how transmission of infection by footwear is prevented if staff members move from one building into another.**
- 10.3 **Location of boot dips, and detail of disinfectant type, concentration, and renewal requirements, and instructions to staff about their use.**
- 10.4 **Location of hand wash or hand sterilisation facilities, and detail of hand disinfectant or sterilising agent, and instructions to staff about their use.**
- 10.5 **If there is a staff communal or social area, detail of how overalls and boots must be dealt with prior to and after mixing in the communal area.**

## **11. PERSONNEL: BIRD CONTACT PRECAUTIONS AND ENTRY CONTROLS**

- 11.1 It must be forbidden for any person to enter the high biosecurity areas by any route other than the hygiene barrier, and the physical design of the premises must reinforce this.
- 11.2 An agreement signed by every member of staff that they will not work with, keep, or have direct contact with any collection of poultry or hobby or pet birds, and will inform management prior to entering the high biosecurity areas if they have had such contact outside this compartment within the previous 72 hours.
- 11.3 A statement signed by every visitor that they have not visited, worked with, or had any other form of direct contact with poultry or hobby or pet birds, except for birds within this compartment, during the 72 hours prior to their visit to the premises.
- 11.4 A record in permanent and easily accessible form of the attendance of every staff member, and the presence of every visitor to the site.
- 11.5 **A written account of the procedure at the hygiene barrier for removing outdoor clothing and shoes, leaving bags or rucksacks on the 'dirty' side, showering, and donning clean protective indoor clothing.**
- 11.6 **Instructions to staff about controlling infection risk when bringing personal items (lunch boxes, mobile phones, newspapers etc) into the high biosecurity areas.**
- 11.7 **A procedure for disinfecting tools or equipment brought on site by outside maintenance workers, inspectors, etc.**
- 11.8 **A procedure to mitigate risk if it is necessary for emergency reasons for personnel to enter the premises with less than the prescribed 72**

hours bird-free time.

## **12. QUARANTINE FOR BIRDS FROM SOURCES OUTSIDE THE COMPARTMENT**

**NB:** It is the responsibility of the Company to demonstrate that there is no possible risk of introduction of infection by the externally sourced birds.

- 12.1 Procedure for ensuring that the source is disease free: testing of the flocks of origin prior to delivery, independently verified biosecurity standards, etc.
- 12.2 Specify conditions for the quarantine farm site: quarantine may be carried out on a regular rearing or laying farm within the compartment, but it must be free from any other birds during the quarantine period.
- 12.3 **Specify staffing arrangements: personnel working on the quarantine site must not visit other compartment sites or have direct contact with any other compartment birds for the duration of the quarantine.**
- 12.4 Protocol for testing the birds in quarantine after arrival for the presence of avian influenza and Newcastle disease viruses.  
**Recommended statistical basis is 95% confidence/5% prevalence, and testing 7 to 14 days after arrival, or 14 to 21 days after hatching.**
- 12.5 Procedure for testing of birds which die during quarantine: submission to VLA for testing for haemagglutinating viruses (which may follow the standard procedure required by Defra for any poultry imported from a Third Country).
- 12.6 **Procedure to define the completion of quarantine and acceptance of the birds into the compartment. Recommended standard is full 21 days quarantine and negative clinical findings and serology results before release.**

## **13. RODENT CONTROL**

- 13.1 **Specify who is responsible for rodent control operations on site. It may be company employees, or an external operator. If the latter, there must be a written contract with the operator which covers the details below as a minimum.**
- 13.2 Number and location of bait sites
- 13.3. Type of bait.
- 13.4 Frequency at which bait sites are checked.
- 13.5 Describe responses which will be initiated if there is evidence of increasing

rodent activity.

#### **14. STAFF: TRAINING AND STANDARD OPERATING PROCEDURES (SOPS)**

- 14.1 A written programme for induction training of newly engaged staff.
- 14.2 A written schedule of the biosecurity issues to be covered during induction training.
- 14.3 A written schedule of the critical control points to be highlighted during induction training.
- 14.4 **Details of any relevant biosecurity external qualifications which staff will be required to study and attempt, e.g. NVQs.**
- 14.5 **Details of any in-service top up training that staff are required to undergo.**
- 14.6 **Specific SOPs to be provided and individually tailored to each area of work.**

#### **15. VEHICLE ENTRY CONTROLS**

- 15.1 Specified entry and exit gates.
- 15.2 **Description of the decontamination area which must be clearly demarcated, with waste water controlled so that it does not contaminate other parts of the premises, and located before the vehicle enters the high biosecurity inner zone.**
- 15.3 Procedure for decontamination/disinfection of tyres and wheel arches within the decontamination area.
- 15.4 **Record of decontamination/disinfection maintained on site and signed off by responsible member of staff for each vehicle visit.**
- 15.5 **Procedure for driver to contact on-site staff without entering any high biosecurity area.**
- 15.6 **Procedure to define and control the areas to which the driver has access.**
- 15.7 **Procedure to ensure that driver's footwear is risk free (eg. provision of company boots, boot disinfection, disposable boot covers, etc.)**

- 15.8 **Procedure for loading/unloading at the interface with the high biosecurity area (include any instructions specific for collections from the egg store).**
- 15.9 How and where the record is kept of the vehicle visit, to show: date and time, owner of vehicle, registration of vehicle, driver name, cargo, last address visited, date and time of visit to last address, and manager's confirmation of decontamination.

## **16. WILD BIRD CONTROLS: ELIMINATION FROM PREMISES**

- 16.1 Confirm the presence or absence of any cause of attraction for wild birds in the vicinity. Typical attractions would be open water, canals or rivers, free range poultry or hobby bird collections, outdoor pig farms, landfill sites, rubbish tips, etc. 'In the vicinity' can normally be taken to mean within 400 metres.
- 16.2 If any such attractions are identified, specify any additional measures taken to deter wild birds from the compartment premises, e.g. anti-perching strips above the entrances or exits to buildings on the site, close mesh fencing to prevent waterfowl from walking onto the site, etc.
- 16.3 If any such attractions are identified, specify additional measures to ensure that faecal contamination does not persist on the ground where it might present a risk, e.g. frequency of visual checks and use of hoses to clear contamination from concrete aprons around entrances, exits and walkways.
- 16.4 If any such attractions are identified, specify measures to ensure that contamination cannot be carried on workers' boots into the bird sheds, e.g. all buildings beyond the hygiene barrier linked by fully enclosed corridor system; all building entrances protected by bench and boot change system, or double boot wash and dip system, hand sterilisation, etc.
- 16.5 Absence of any food attractant on site, e.g. spilled bird feed, exposed dead carcasses or broken eggs, etc.
- 16.6 All ventilation openings protected by screens or other structures designed to deter wild bird access.
- 16.7 **Standing instructions to staff that no doors may be left open and unattended.**