

QUARANTINE FACILITIES ON A PREMISES APPROVED UNDER ANNEX C OF THE BALAI DIRECTIVE 92/65/EEC (as amended by Regulation EC No. 1282/2002)

CONDITIONS WHICH MUST BE MET FOR APPROVAL OF QUARANTINE/ISOLATION FACILITIES

INTRODUCTION

1. 'Isolation' and 'quarantine' are not always precisely defined in European Union legislation, and one word is usually described by reference to the other. For example in the poultry trade directive 90/539/EEC: 'Quarantine station shall mean facilities where the poultry is kept in complete isolation and away from direct or indirect contact with other poultry, so as to permit long-term observation and testing' (Council Directive 90/539/EC, Article 2)

The Office International d'Epizooties (OIE) International Animal Health Code defines a quarantine station as 'a facility under the control of the veterinary authority where a group of animals is maintained in isolation.'

2. In Great Britain specific conditions for rabies quarantine premises are laid down under the Rabies (Importation of Dogs, Cats and Other Mammals Order 1974 (as amended)(ROI). These regulations apply principally to Carnivora, Chiroptera and Rodentia, and quarantine premises for this purpose must be approved separately. Requirements under the rabies legislation take precedence over any requirements of the Balai Directive 92/65/EEC.

3. Animals imported from Third Countries will commonly be subject to additional quarantine requirements under national or EU legislation, above those required for the introduction of added animals from EU non-approved premises.

4. In order to emphasise the difference between quarantine of the above types and quarantine required for added animals under the Balai Directive, the latter is referred to as 'isolation' throughout this document. The conditions below refer to isolation for added animals entering a Balai approved premises from a non-approved source within the EU.

Physical separation of the isolation area

5. The purpose of separation around the isolation area is to avoid transmission of pathogenic organisms from the added animals to the resident animals. For the purposes of approval it is necessary to provide only for the diseases listed in Annex A (and Annex B if appropriate). There is only one Annex A disease, namely Foot and Mouth disease (FMD), which is spread significantly by the airborne route. However FMD is not perceived as a realistic risk in the context of 'added animals', since the animals will be derived only from other Member States of the European Union, within which reporting procedures for FMD are rigorous.

6. Consequently the relevant forms of transmission that must be catered for by added animal isolation are direct contact, and by secretions and excretions, such as urine (including droplets from splashing and runoff), saliva (which may be deposited on fences and gates etc.), and droplets sprayed by coughing.

7. For ungulates (see section C, paragraph 1 below), they must be separated from resident ungulates by double fencing with a gap of 3 meters. **If there is a solid partition between the enclosures, the gap may be reduced to any distance which will reasonably ensure that fluids (including droplets) cannot be transmitted.**

8. For non-human primates (see section D, paragraph 9), where the added animals and the resident animals are held in proximity and both contained in enclosures with open mesh, there should be a gap of at least 3 meters between their cages. If there is a solid barrier between the enclosures, the gap may be reduced to any distance which will reasonably ensure that fluids (including droplets) cannot be transmitted.

9. For carnivores and other species, the above guidelines may be adapted as appropriate.

Resident animals in Co-Terminus isolation

10. It may be acceptable for added animals to be placed directly into a group of resident animals, provided that the total group of added and resident animals are then treated as being all equally in isolation. Whether or not this is appropriate in any case is a matter for the Approved Veterinarian to judge, taking into account the health status and welfare requirements of the animals and recognising the potential consequences if the resident animals are exposed unnecessarily to infectious disease. The physical separation of the isolation area for the entire co-terminus group must meet the guidelines above. The length of the isolation period for the entire group will be determined by the last animal to be added, i.e. the period under isolation rules will not end until the time determined for the last of the added animals to be released from isolation.

11. The situation may arise in scientific institutions that animals are being added to the collection on such a regular basis that the entire group never emerges from its co-terminus isolation state. This is acceptable, but the establishment must understand that it will not be permissible to move live animals out of the isolation premises whilst the isolation/quarantine period remains in force. It is likely to apply to research establishments which need to be approved in order to be permitted to import primates.

Additional rules lay down by the receiving premises

12. Zoos are frequently concerned about other infectious agents, for which they may set their own added animals procedures which go beyond those required under the Balai approval system. Additional measures may be recommended by bodies such as the European Association of Zoos and Aquaria (EAZA), or the British and Irish Association of Zoos and Aquaria (BIAZA). These are a private matter for the zoo and do not have any impact on the grant of approval under Balai.

A. GENERAL CONDITIONS

Structural requirements

1. Location. The isolation quarters must be physically separated from other animal accommodation by a reasonable distance, taking into account the species concerned and the ability of the relevant viruses to spread on the air.

If High Efficiency Particulate Extraction (HEPA) is used the distance can be much reduced. HEPA filters should have a penetration not greater than 0.003% when tested by the Sodium Flame test in accordance with British Standard 3928 or an equivalent standard.

2. Demarcation. The limits of the isolation area must be clearly demarcated by walls or fences as appropriate. This does not preclude the possibility that specific areas or pens within the premises may be designated as isolation areas for a limited time and a particular purpose, provided that they meet the general requirements.

3. Access. There must be a double door system to prevent escape at the entry/exit with sufficient space between the doors to allow one to be closed before the other is opened. Entry/exit doors must be lockable and must display a notice stating: 'QUARANTINE: No Admission to Unauthorised Persons'.

4. Hygiene barrier. Facilities must be available at the entry/exit point for attendants to change overalls, to change and disinfect boots, to wash hands, and if appropriate to shower.

5. Loading/Unloading. Suitable facilities must be available to load or unload animals between transport crates and isolation pens without the risk of escape.

6. Restraint. Suitable crush or penning facilities must be available within reasonable access of the isolation area, so that animals may be safely restrained for clinical and diagnostic procedures such as blood sampling. The route from isolation to restraint must not put other animals at risk of infection from the introduced animals.

7. Inspection. The design of the pens or cages within the isolation area must be such that the animals may be visually inspected at any time, with adequate light and ease of access.

8. Disinfection. The physical structure and all equipment must be made of such materials that they can be effectively cleansed and disinfected, or destroyed after use. When a permanent exhibit is used for isolation, should disease be diagnosed during isolation the substrate should be treatable or removed and replaced.

9. Vermin. The design must be suitable to minimise access by rodents, wild birds and insects, as appropriate for the species in question. Where drains are present, they must be fitted with rodent proof covers.

10. Feed Store. The feed store must be suitably protected from vermin.

11. Waste Disposal. Adequate storage facilities must be available to contain the litter and animal waste produced during the isolation period, and the storage facility must be bird and vermin proof. There must be facilities to dispose of the waste either during or after the isolation period in a way which will ensure that there is no risk of the spread of disease.

12. Post Mortem. Refrigeration facilities or equivalent must be available within the isolation area, or in a suitably disease-protected location nearby, to hold carcasses of animals that die until they can be subject to post mortem examination. Procedures for

conveying carcasses safely to the storage facility must be laid down in writing by the approved veterinarian.

Management Procedures

13. Surveillance. Every animal in isolation must be visually inspected at least once a day by suitably competent staff. Any signs of illness must be recorded and reported immediately to the responsible veterinarian, who should make a further examination of the affected animals without any unreasonable delay.

14. Staff. The premises must have suitable staff who are present on a sufficiently regular schedule to ensure surveillance of the animals on a daily basis and more frequently, if appropriate. Those staff must be able to take appropriate precautions to ensure that there is no risk of transferring infection from the isolation unit to any other animals and the arrangements must be agreed in writing by the approved veterinarian.

15. Hygiene. Staff entering the isolation premises must always change into protective clothing and footwear. On leaving, the overalls and footwear must be removed and left within the isolation area, and the footwear must be disinfected. Hands should be washed, or otherwise disinfected, on entering and leaving.

16. Equipment. None of the moveable items used in the isolation unit should be taken outside the unit, or used with other stock outside the unit, for the entire duration of the isolation period.

17. Waste. Litter and waste material must be collected regularly, stored in the containers provided, and disposed of either during or after the isolation period in such a way that disease agents will not be spread.

18. Disinfection. Premises must have an effective programme, laid down in writing by the approved veterinarian, for cleansing and disinfection before and/or after each isolation session if necessary and appropriate; DEFRA-approved disinfectants must be specified and used in the programme; and an appropriate resting period (usually 7 days) must be specified after each cleansing and disinfection operation.

19. Transport Crates. Crates or cages used for transport, if to be re-used, must be made of materials which allow effective cleaning and disinfection, and this should be carried out within the isolation unit. If not re-used, the crates and cages must be destroyed in such a way that disease agents cannot be spread.

20. All-in, All-out. An 'all-in, all-out' policy should be followed in the isolation unit. If it is necessary to add animals whilst others are already present in the unit, the isolation period of all of them must be extended until the latest completion date of any of the animals.

21. Illness. If any animals become ill during quarantine and the approved veterinarian considers that they need to be moved to a specialised hospital facility for diagnosis or treatment, he/she must ensure that this is done under his/her personal supervision in such a way as to ensure no possible risk of disease spread. In particular, the approved veterinarian must personally supervise the arrangements for maintaining isolation throughout the movement, and for disinfecting any vehicles, rooms and equipment with which the animal has had contact.

22. Disease and Death. Any sign of any disease or death during isolation must be reported immediately to the approved veterinarian. All suspicions of any infectious disease on Annex A and any deaths in isolation must be reported immediately to the DVM/RVL. Carcasses of animals which die during isolation, and if necessary those that are dead on arrival, must be submitted to a post mortem examination without unreasonable delay.

24. Visitors. Visitors must not be allowed to enter the isolation unit. If personnel apart from the designated attendants need to enter for essential maintenance etc., they must be required to wash thoroughly on entering and leaving, and wear protective clothing which shall be put on prior to entering and removed prior to leaving. There must be a visitors' book to record the dates, names and addresses of all visitors.

25. Records. The person in charge of the isolation unit must keep the following records, which should be retained for at least ten years:

- The date, number and identification of animals entering and leaving the isolation facility.
- Copies of the export health certificates and border crossing certificates accompanying imported animals.
- Significant health observations, cases of illness and deaths on a daily basis.
- Dates and results of testing.
- Dates and types of treatment.
- Dates and names and addresses of persons entering the isolation unit.

26. Duration. Isolation should normally last for at least 30 days, unless a longer period is required under Rabies import regulations or for other reasons determined by the Imports Team, International Animal Health, Nobel House, the DVM/RVL or the approved veterinarian.

B. ADDITIONAL REQUIREMENTS SPECIFICALLY FOR BIRDS

1. Balai approved premises are required to have suitable isolation facilities for birds entering from a source other than another approved premises. The conditions apply to the whole premises not just the isolation facilities - though there may be occasions when the whole premises has isolation status - and continuously, not just during any isolation period. Isolation may be applicable to any species of animal including birds and mammals and the same facilities may be used for different purposes at different times.

2. For these reasons, the DVM/RVL working with the approved veterinarian may exercise their judgement in assessing the suitability of quarantine facilities for each specific premises having regard to the nature of the establishment and its management. If birds are to be isolated then the standard should be comparable to that required for commercial bird imports although certain details of that specification may not be applicable on every occasion. One example is the 200m separation distance from other

non-poultry birds in the approved premises. Another is the possible use of wood in the structure of an isolation facility which is only used infrequently or temporarily. It is accepted different groups of animals with different health status may be located within 200m of each other, provided the whole establishment is under official control and release of any animal can be stopped if there is a disease incident.

3. Ventilation. All ventilation openings must be covered with a double layer of wire mesh. There must be no possibility of access by wild birds.

4. Air Space. If there are separate units within the isolation facility, each unit must occupy a separate airspace so as to be an isolated epidemiological unit. If this cannot be achieved, all the birds in isolation must remain until the completion date of the last birds to enter.

C ADDITIONAL REQUIREMENTS SPECIFICALLY FOR UNGULATES

1. Fencing. If the isolation area includes open paddocks, situations where there may be stock in adjacent paddocks must be avoided. The isolation paddocks must be surrounded by double fences allowing a suitable sanitary gap between the fences. A minimum gap of at least 3 metres should normally be satisfactory, but taking account of the species concerned, the DVM/RVL may require a different standard. Both fences must be escape-proof.

2. Herds in Isolation. If the isolation facility is intended to contain large groups of animals, there must be additional provision so that any individual that appears to be unwell can be separated and kept apart from the rest of the group, with facilities for testing and treatment as appropriate.

D ADDITIONAL QUARANTINE REQUIREMENTS SPECIFICALLY FOR PRIMATES

These requirements are based on the Office International d'Epizooties (OIE) Animal Health Code, section 2.10.1. and Appendix 3.5.1. The latest version of the requirements is in Chapter 5.9, Article 5.9.1 of the Code which is entitled 'Quarantine measures applicable to non-human primates' and can be found at: http://www.oie.int/eng/normes/Mcode/en_chapitre_1.5.9.htm

The requirements may be reduced by DEFRA where the non-human primates come from establishments that have permanent veterinary supervision (such as other zoos that are registered but not approved) and meet certain other criteria.

Non-human primates moving from approved to approved holdings need not undergo an added animal procedure.

(GB Rabies quarantine requirements may contain additional conditions)

1. Zoonoses. Any biting or scratching incidents involving humans, or other events in which humans are exposed to primate blood or saliva, are to be reported immediately to the responsible veterinarian, who should consult with medical authorities as appropriate.

2. Protection of Attendants. The overalls and boots provided for entry to the quarantine should completely cover the attendant's body, and suitable masks, visors, goggles and gloves should also be provided (*where this raises issues such as welfare and socialisation, the approved veterinarian should consult with the DVM/RVL who may agree to alternative methods providing equivalent security*).

3. Staff Training. The responsible veterinarian should ensure that all attendants are fully instructed in the procedures necessary to protect their own health, as well as the health and welfare of the animals in quarantine. Personnel must not eat, drink, smoke or store food for human use within the quarantine rooms.

4. Staff Health. Personnel working within the quarantine area should be encouraged to provide baseline serum samples, which would be stored for study and comparison if appropriate. Additional serum samples may be collected periodically as an aid to epidemiological investigations. Staff should be encouraged to report any signs of illness immediately to their medical adviser.

5. Ventilation. If natural ventilation is used, the openings must be covered with a double layer of mesh, each of which is individually strong and secure enough to prevent the escape of the animals. Ventilation intakes and outlets must not be so close to any other animal holding area as to present a disease risk. If forced ventilation with HEPA filtration is used, there should be provision to maintain adequate ventilation in the event of a technical failure. Separate units must be ventilated separately.

6. Washing facilities. Washing facilities with hot and cold running water should be available for personnel to wash hands within each animal holding room. Personnel should wash or otherwise disinfect hands at frequent intervals whilst working within the quarantine premises.

7. Footbaths. Footbaths should be available not only at the entrance/exit of the quarantine premises, but also between individual holding rooms within the premises. The footbaths should contain a DEFRA approved disinfectant agreed by the approved veterinarian. Personnel should use the footbaths as they pass from one room to another.

8. Equipment. Each holding room should have its own complete range of dedicated equipment, and equipment should not be transferred from one holding room to another. After use all equipment including work surfaces should be effectively cleaned and disinfected. Because of the aerosol risk power hoses should not be used, except with the agreement of the approved veterinarian.

9. Group Separation. Separate groups entering the quarantine premises from different sources or on different occasions must remain physically and epidemiologically isolated from each other. Separate groups must be accommodated in separate, isolated units. Animals may not be transferred between groups. However where this raises issues such as welfare and socialisation, the approved veterinarian in consultation with the DVM/RVL may agree to mixing animals, provided that isolation conditions then apply to all those in contact with the introduced animals.

10. Cage Discipline. No animals may be removed from their cages, albeit within the self-contained quarantine premises, without the specific authority and supervision of the responsible veterinarian.

11. Duration. OIE recommends quarantine duration of at least 30 days if it is coming from premises which are under veterinary supervision, though **not Balai approved** or 12 weeks if it is coming from circumstances without veterinary supervision or from the wild. As stated above, however, if moving from approved to approved, there is no added animal procedure required. In Great Britain under rabies regulations the duration of quarantine for non-human primates and certain other mammals of [Schedule 1](#) of The Rabies (importation of dogs, cats and other mammals) Order 1974 (as amended) (although there are exemptions, see reference to Balai Article 10.4) must be at least 6 months.

E ADDITIONAL REQUIREMENTS SPECIFICALLY FOR LABORATORY AND RESEARCH ANIMALS OTHER THAN PRIMATES

1. Zoonoses. Any biting or scratching incidents involving humans, or exposure of humans to any bodily fluids of the animals in quarantine, are to be reported immediately to the responsible veterinarian, who should consult with medical authorities as appropriate.

2. Staff Training. The responsible veterinarian should ensure that all attendants are fully instructed in the procedures necessary to protect their own health, as well as the health and welfare of the animals in quarantine.