

CHAPTER 4.5.

APPLICATION OF COMPARTMENTALISATION

Article 4.5.1.

Introduction and objectives

The recommendations in this chapter provide a structured framework for the application and recognition of *compartments* within countries or *zones*, based on Chapter 4.4. with the objective to facilitate trade in *animals* and products of animal origin and as a tool for disease management.

Establishing and maintaining a disease free status throughout the country should be the final goal for Member Countries. However, establishing and maintaining a disease free status for an entire country may be difficult, especially in the case of diseases that can easily cross international boundaries. For many diseases, Member Countries have traditionally applied the concept of zoning to establish and maintain an animal *subpopulation* with a different animal health status within national boundaries.

The essential difference between zoning and compartmentalisation is that the recognition of *zones* is based on geographical boundaries whereas the recognition of *compartments* is based on management practices and *biosecurity*. However, spatial considerations and good management practices play a role in the application of both concepts.

Compartmentalisation is not a new concept for *Veterinary Services*; in fact, it has been applied for a long time in many disease control programmes that are based on the concept of disease free *herds* or *flocks*.

The fundamental requirement for compartmentalisation is the implementation and documentation of management and *biosecurity* measures to create a functional separation of *subpopulations*.

For example, an animal production operation in an infected country or *zone* might have *biosecurity* measures and management practices that result in negligible *risk* from diseases or agents. The concept of a *compartment* extends the application of a 'risk boundary' beyond that of a geographical interface and considers all epidemiological factors that can help to create an effective disease-specific separation between *subpopulations*.

In disease free countries or *zones*, *compartments* preferably should be defined prior to the occurrence of a disease *outbreak*. In the event of an *outbreak* or in infected countries or *zones*, compartmentalisation may be used to facilitate trade.

For the purpose of *international trade*, *compartments* should be under the responsibility of the *Veterinary Authority* in the country. For the purposes of this chapter, compliance by Member Countries with Chapters 1.1. and 3.2. is an essential prerequisite.

Article 4.5.2.

Principles for defining a compartment

A *compartment* may be established with respect of a specific disease or diseases. A *compartment* should be clearly defined, indicating the location of all its components including *establishments*, as well as related functional units (such as *feed* mills, *slaughterhouses/abattoirs*, rendering plants, etc.), their interrelationships and their contribution to an epidemiological separation between the *animals* in a *compartment* and *subpopulations* with a different health status. The definition of *compartment* may revolve around disease-specific epidemiological factors, animal production systems, *biosecurity* practices infrastructural factors and *surveillance*.

Article 4.5.3.

Separation of a compartment from potential sources of infection

The management of a *compartment* should provide to the *Veterinary Authority* documented evidence on the following:

1. Physical or spatial factors that affect the status of biosecurity in a compartment

While a *compartment* is primarily based on management and *biosecurity* measures, a review of geographical factors is needed to ensure that the functional boundary provides adequate separation of a *compartment* from adjacent animal populations with a different health status. The following factors should be taken into consideration in conjunction with *biosecurity* measures and, in some instances, may alter the degree of confidence achieved by general *biosecurity* and *surveillance* measures:

- a) disease status in adjacent areas and in areas epidemiologically linked to the *compartment*;
- b) location, disease status and *biosecurity* of the nearest *epidemiological units* or other epidemiologically relevant premises. Consideration should be given to the distance and physical separation from:
 - i) *flocks* or *herds* with a different health status in close proximity to the *compartment*, including *wildlife* and their migratory routes;
 - ii) *slaughterhouses/abattoirs*, rendering plants or *feed* mills;
 - iii) *markets*, fairs, agricultural shows, sporting events, zoos, circuses and other points of animal concentration.

2. Infrastructural factors

Structural aspects of the *establishments* within a *compartment* contribute to the effectiveness of its *biosecurity*. Consideration should be given to:

- a) fencing or other effective means of physical separation;
- b) facilities for people entry including access control, changing area and showers;
- c) *vehicle* access including washing and *disinfection* procedures;
- d) *unloading* and *loading* facilities;
- e) isolation facilities for introduced *animals*;
- f) facilities for the introduction of material and equipment;
- g) infrastructure to store *feed* and veterinary products;
- h) disposal of carcasses, manure and waste;
- i) water supply;
- j) measures to prevent exposure to living mechanical or biological *vectors* such as insects, rodents and *wild* birds;
- k) air supply;
- l) *feed* supply or source.

More detailed recommendations for certain *establishments* can be found in Sections 4 and 6.

3. Biosecurity plan

The integrity of the *compartment* relies on effective *biosecurity*. The management of the *compartment* should develop, implement and monitor a comprehensive *biosecurity plan*.

The *biosecurity plan* should describe in detail:

- a) potential pathways for introduction and spread into the *compartment* of the agents for which the *compartment* was defined, including animal movements, rodents, fauna, aerosols, arthropods, *vehicles*, people, biological products, equipment, fomites, *feed*, waterways, drainage or other means. Consideration should also be given to the survivability of the agent in the environment;
- b) the critical control points for each pathway;
- c) measures to mitigate exposure for each critical control point;
- d) standard operating procedures including:
 - i) implementation, maintenance, monitoring of the measures,
 - ii) application of corrective actions,
 - iii) verification of the process,
 - iv) record keeping;
- e) contingency plan addressing any potential future changes in the *risk* factors;

- f) reporting procedures to the *Veterinary Authority*;
- g) the programme for educating and training workers to ensure that all persons involved are knowledgeable and informed on *biosecurity* principles and practices;
- h) the *surveillance* programme in place.

In any case, sufficient evidence should be submitted to assess the efficacy of the *biosecurity plan* in accordance with the level of *risk* for each identified pathway. This evidence should be structured in line with the principles of Hazard Analysis and Critical Control Point (HACCP). The *biosecurity* risk of all operations of the *compartment* should be regularly re-assessed and documented at least on a yearly basis. Based on the outcome of the assessment, concrete and documented mitigation steps should be taken to reduce the likelihood of introduction of the pathogenic agent into the *compartment*.

4. Traceability system

A prerequisite for assessing the integrity of a *compartment* is the existence of a valid *traceability* system. All *animals* within a *compartment* should be individually identified and registered in such a way that their history and movements can be documented and audited. In cases where individual identification may not be feasible, such as broilers and day-old chicks, the *Veterinary Authority* should provide sufficient assurance of *traceability*.

All animal movements into and out of the *compartment* should be recorded at the *compartment* level, and when needed, based on a *risk assessment*, certified by the *Veterinary Authority*. Movements within the *compartment* need not be certified but should be recorded at the *compartment* level.

Article 4.5.4.

Documentation

Documentation should provide clear evidence that the *biosecurity*, *surveillance*, *traceability* and management practices defined for a *compartment* are effectively and consistently applied. In addition to animal movement information, the necessary documentation should include *herd* or *flock* production records, *feed* sources, *laboratory* tests, birth and *death* records, the visitor logbook, morbidity history, medication and *vaccination* records, *biosecurity plans*, training documentation and any other criteria necessary for the evaluation of disease exclusion.

The historical status of a *compartment* for the diseases for which it was defined should be documented and demonstrate compliance with the requirements for freedom in the relevant *Terrestrial Code* chapter.

In addition, a *compartment* seeking recognition should submit to the *Veterinary Authority* a baseline animal health report indicating the presence or absence of *listed diseases* for the animal species of interest to the *compartment* in accordance with Chapter 1.3. This report should be regularly updated to reflect the current animal health situation of the *compartment*.

Vaccination records including the type of vaccine and frequency of administration should be available to enable interpretation of *surveillance* data.

The time period for which all records should be kept may vary in accordance with the species and diseases for which the *compartment* was defined.

All relevant information should be recorded in a transparent manner and be easily accessible so as to be auditable by the *Veterinary Authority*.

Article 4.5.5.

Surveillance for the agent or disease

The *surveillance* system should comply with Chapter 1.4. and the specific recommendations for *surveillance* for the diseases for which the *compartment* was defined, if available.

If there is an increased *risk* of exposure to the agent for which the *compartment* has been defined, the sensitivity of the internal and external *surveillance* system should be reviewed and, where necessary, increased. At the same time, *biosecurity* measures in place should be reassessed and increased if necessary.

1. Internal surveillance

Surveillance should involve the collection and analysis of disease or *infection* data so that the *Veterinary Authority* can certify that the animal *subpopulation* contained in all the *establishments* comply with the defined status of that *compartment*. A *surveillance* system that is able to ensure early detection in the event that the agent enters a *subpopulation* is essential. Depending on the diseases for which the *compartment* was defined, different *surveillance* strategies may be applied to achieve the desired confidence in disease freedom.

2. External surveillance

The *biosecurity* measures applied in a *compartment* should be appropriate to the level of exposure of the *compartment*. External *surveillance* will help identify a significant change in the level of exposure for the identified pathways for disease introduction into the *compartment*.

An appropriate combination of active and passive *surveillance* is necessary to achieve the goals described above. Based on the recommendations of Chapter 1.4., targeted *surveillance* based on an assessment of *risk* factors may be the most efficient *surveillance* approach. Targeted *surveillance* should in particular include *epidemiological units* in close proximity to the *compartment* or those that have a potential epidemiological link with it.

Article 4.5.6.

Diagnostic capabilities and procedures

Officially-designated *laboratory* facilities complying with the OIE standards for quality assurance, as defined in Chapter 1.1.5. of the *Terrestrial Manual*, should be available for sample testing. All *laboratory* tests and procedures should comply with the recommendations of the *laboratory* for the specific disease. Each *laboratory* that conducts testing should have systematic procedures in place for rapid reporting of disease results to the *Veterinary Authority*. Where appropriate, results should be confirmed by an OIE Reference Laboratory.

Article 4.5.7.

Emergency response and notification

Early detection, diagnosis and notification of disease are critical to minimise the consequences of *outbreaks*.

In the event of suspicion of occurrence of the disease for which the *compartment* was defined, the free status of the *compartment* should be immediately suspended. If confirmed, the status of the *compartment* should be immediately revoked and *importing countries* should be notified following the provisions of Article 5.3.7.

In case of an occurrence of any infectious disease not present in accordance with the baseline animal health report of the *compartment* referred to in Article 4.5.4., the management of the *compartment* should notify the *Veterinary Authority*, and initiate a review to determine whether there has been a breach in the *biosecurity* measures. If a significant breach in *biosecurity*, even in the absence of *outbreak*, is detected, export certification as a free *compartment* should be suspended. Disease free status of the *compartment* may only be reinstated after the *compartment* has adopted the necessary measures to re-establish the original *biosecurity* level and the *Veterinary Authority* re-approves the status of the *compartment*.

In the event of a *compartment* being at risk from a change, in the surrounding area, in the disease situation for which the *compartment* was defined, the *Veterinary Authority* should re-evaluate without delay the status of the *compartment* and consider whether any additional *biosecurity* measures are needed to ensure that the integrity of the *compartment* is maintained.

Article 4.5.8.

Supervision and control of a compartment

The authority, organisation, and infrastructure of the *Veterinary Services*, including *laboratories*, should be clearly documented in accordance with Chapter 3.3., to provide confidence in the integrity of the *compartment*.

The *Veterinary Authority* has the final authority in granting, suspending and revoking the status of a *compartment*. The *Veterinary Authority* should continuously supervise compliance with all the requirements critical to the maintenance of the *compartment* status described in this chapter and ensure that all the information is readily accessible to the *importing countries*. Any significant change should be notified to the *importing country*.

NB: FIRST ADOPTED IN 2008; MOST RECENT UPDATE ADOPTED IN 2012.

