SECTION 11.

DISEASES OF MOLLUSCS

CHAPTER 11.1.

INFECTION WITH ABALONE HERPESVIRUS

Article 11.1.1.

For the purposes of the *Aquatic Code*, infection with abalone herpesvirus (AbHV) means *infection* with the herpesvirus known to cause *disease* in abalone.

Information on methods for *diagnosis* is provided in the *Aquatic Manual*.

Article 11.1.2.

Scope

The recommendations in this chapter apply to: *Haliotis diversicolor* (subspecies *aquatilis* and *supertexta*), *Haliotis laevegata*, *H. rubra* and hybrids of *H. laevegata* x *H. rubra*. These recommendations also apply to any other *susceptible species* referred to in the *Aquatic Manual* when traded internationally.

Article 11.1.3.

Importation or transit of aquatic animals and aquatic animal products for any purpose from a country, zone or compartment not declared free from infection with abalone herpesvirus

1) *Competent Authorities* should not require any conditions related to *infection* with abalone herpesvirus regardless of the *infection* with abalone herpesvirus status of the *exporting country*, *zone* or *compartment*, when authorising the importation or transit of the following *aquatic animal products* from the species referred to in Article 11.1.2. which are intended for any purpose and which comply with Article 5.4.1.:

   a) heat sterilised hermetically sealed abalone products (i.e. a heat treatment at 121˚C for at least 3.6 minutes or any time/temperature equivalent);

   b) mechanically dried abalone products (i.e. a heat treatment at 100˚C for at least 30 minutes or any time/temperature equivalent which has been demonstrated to inactivate AbHV).

2) When authorising the importation or transit of *aquatic animals* and *aquatic animal products* of a species referred to in Article 11.1.2., other than those referred to in point 1 of Article 11.1.3., *Competent Authorities* should require the conditions prescribed in Articles 11.1.7. to 11.1.11. relevant to the *infection* with abalone herpesvirus status of the *exporting country*, *zone* or *compartment*.

3) When considering the importation or transit of *aquatic animals* and *aquatic animal products* of a species not covered in Article 11.1.2. but which could reasonably be expected to pose a *risk* of spread of *infection* with abalone herpesvirus, the *Competent Authority* should conduct a *risk analysis* in accordance with the recommendations in Chapter 2.1. The *Competent Authority* of the *exporting country* should be informed of the outcome of this assessment.

Article 11.1.4.

Country free from infection with abalone herpesvirus

If a country shares a *zone* with one or more other countries, it can only make a *self-declaration of freedom* from *infection* with abalone herpesvirus if all the areas covered by the shared water bodies are declared countries or *zones* free from *infection* with abalone herpesvirus (see Article 11.1.5.).

As described in Article 1.4.6., a country may make a *self-declaration of freedom* from *infection* with abalone herpesvirus if:

1) none of the *susceptible species* referred to in Article 11.1.2. are present and *basic biosecurity conditions* have been continuously met for at least the last two years;

OR

2) any of the *susceptible species* referred to in Article 11.1.2. are present and the following conditions have been met:

   a) there has been no observed occurrence of the *disease* for at least the last ten years despite conditions that are conducive to its clinical expression (as described in the corresponding chapter of the *Aquatic Manual*); and

   b) *basic biosecurity conditions* have been continuously met for at least the last two years;

OR

3) the disease status prior to *targeted surveillance* is unknown but the following conditions have been met:

   a) *basic biosecurity conditions* have been continuously met for at least the last two years; and

   b) *targeted surveillance*, as described in Chapter 1.4., has been in place for at least the last two years without detection of *infection* with abalone herpesvirus;

OR

4) it previously made a *self-declaration of freedom* from *infection* with abalone herpesvirus and subsequently lost its *disease* free status due to the detection of *infection* with abalone herpesvirus but the following conditions have been met:

   a) on detection of the *disease*, the affected area was declared an *infected zone* and a *protection zone* was established; and

   b) infected populations have been destroyed or removed from the *infected zone* by means that minimise the *risk* of further spread of the *disease*, and the appropriate *disinfection* procedures (as described in the *Aquatic Manual*) have been completed; and

   c) previously existing *basic biosecurity conditions* have been reviewed and modified as necessary and have continuously been in place since eradication of the *disease*; and

   d) *targeted surveillance*, as described in Chapter 1.4., has been in place for at least the last two years without detection of *infection* with abalone herpesvirus.

   In the meantime, part or all of the non-affected area may be declared a free *zone* provided that such a part meets the conditions in point 3 of Article 11.1.5.

Article 11.1.5.

Zone or compartment free from infection with abalone herpesvirus

If a *zone* or *compartment* extends over more than one country, it can only be declared a *zone* or *compartment* free from *infection* with abalone herpesvirus if all the relevant *Competent Authorities* confirm that all relevant conditions have been met.

As described in Article 1.4.6., a *zone* or *compartment* within the *territory* of one or more countries not declared free from *infection* with abalone herpesvirus may be declared free by the *Competent Authority(ies)* of the country(ies) concerned if:

1) none of the *susceptible species* referred to in Article 11.1.2. are present in the *zone* or *compartment* and *basic biosecurity conditions* have been continuously met for at least the last two years;

OR

2) any of the *susceptible species* referred to in Article 11.1.2. are present in the *zone* or *compartment* and the following conditions have been met:
   a) there has not been any observed occurrence of the *disease* for at least the last ten years despite conditions that are conducive to its clinical expression (as described in the corresponding chapter of the *Aquatic Manual*); and
   b) *basic biosecurity conditions* have been continuously met for at least the last two years;

OR

3) the disease status prior to *targeted surveillance* is unknown but the following conditions have been met:
   a) *basic biosecurity conditions* have been continuously met for at least the last two years; and
   b) *targeted surveillance*, as described in Chapter 1.4., has been in place, in the *zone* or *compartment*, for at least the last two years without detection of *infection* with abalone herpesvirus;

OR

4) it previously made a *self-declaration of freedom* for a *zone* from *infection* with abalone herpesvirus and subsequently lost its *disease* free status due to the detection of *infection* with abalone herpesvirus in the *zone* but the following conditions have been met:
   a) on detection of the *disease*, the affected area was declared an *infected zone* and a *protection zone* was established; and
   b) infected populations have been destroyed or removed from the *infected zone* by means that minimise the *risk* of further spread of the *disease*, and the appropriate *disinfection* procedures (as described in the *Aquatic Manual*) have been completed; and
   c) previously existing *basic biosecurity conditions* have been reviewed and modified as necessary and have continuously been in place since eradication of the *disease*; and
   d) *targeted surveillance*, as described in Chapter 1.4., has been in place for at least the last two years without detection of *infection* with abalone herpesvirus.

Article 11.1.6.

Maintenance of free status

A country, *zone* or *compartment* that is declared free from *infection* with abalone herpesvirus following the provisions of points 1 or 2 of Articles 11.1.4. or 11.1.5. (as relevant) may maintain its status as free from *infection* with abalone herpesvirus provided that *basic biosecurity conditions* are continuously maintained.

A country, *zone* or *compartment* that is declared free from *infection* with abalone herpesvirus following the provisions of point 3 of Articles 11.1.4. or 11.1.5. (as relevant) may discontinue *targeted surveillance* and maintain its status as free from *infection* with abalone herpesvirus provided that conditions that are conducive to clinical expression of *infection* with abalone herpesvirus, as described in the corresponding chapter of the *Aquatic Manual*, exist and *basic biosecurity conditions* are continuously maintained.

However, for declared free *zones* or *compartments* in infected countries and in all cases where conditions are not conducive to clinical expression of *infection* with abalone herpesvirus, *targeted surveillance* needs to be continued at a level determined by the *Aquatic Animal Health Service* on the basis of the likelihood of *infection*.

Article 11.1.7.

Importation of aquatic animals and aquatic animal products from a country, zone or compartment declared free from infection with abalone herpesvirus

When importing *aquatic animals* and *aquatic animal products* of species referred to in Article 11.1.2. from a country, *zone* or *compartment* declared free from *infection* with abalone herpesvirus, the *Competent Authority* of the *importing country* should require that the consignment be accompanied by an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* or a *certifying official* approved by the *importing country* certifying that, on the basis of the procedures described in Articles 11.1.4. or 11.1.5. (as applicable) and 11.1.6., the place of production of the *aquatic animals* and *aquatic animal products* is a country, *zone* or *compartment* declared free from *infection* with abalone herpesvirus.

The *certificate* should be in accordance with the Model Certificate in Chapter 5.11.

This Article does not apply to *commodities* referred to in point 1 of Article 11.1.3.

Article 11.1.8.

Importation of live aquatic animals for aquaculture from a country, zone or compartment not declared free from infection with abalone herpesvirus

1) When importing, for *aquaculture*, live *aquatic animals* of species referred to in Article 11.1.2. from a country, *zone* or *compartment* not declared free from *infection* with abalone herpesvirus, the *Competent Authority* of the *importing country* should assess the *risk* and, if justified, apply the following *risk* mitigation measures:
   a) the direct delivery to and lifelong holding of the consignment in biosecure facilities for continuous isolation from the local environment; and
   b) the treatment of water used in transport and of all effluent and waste materials in a manner that ensures inactivation of AbHV.
2) If the intention of the introduction is the establishment of a new stock, relevant aspects of the Code of Practice on the Introductions and Transfers of Marine Organisms of the International Council for the Exploration of the Seas (ICES) should be considered.
3) For the purposes of the *Aquatic Code*, relevant aspects of the ICES Code (full version see: http://www.ices.dk/publications/our-publications/Pages/Miscellaneous.aspx) may be summarised to the following points:
   a) identify stock of interest (cultured or wild) in its current location;
   b) evaluate stock health and disease history;
   c) take and test samples for abalone herpesvirus, pests and general health/disease status;
   d) import of a founder (F-0) population and quarantine in a secure facility;
   e) produce F-1 generation from the F-0 stock in *quarantine*;
   f) culture F-1 stock and at critical times in its development (life cycle) sample and test for *infection* with abalone herpesvirus and perform general examinations for pests and general health/disease status;
   g) if *infection* with abalone herpesvirus is not detected, pests are not present, and the general health/disease status of the stock is considered to meet the *basic biosecurity conditions* of the *importing country*, *zone* or *compartment*, the F-1 stock may be defined as *infection* with abalone herpesvirus free or specific pathogen free (SPF) for *infection* with abalone herpesvirus;
   h) release SPF F-1 stock from *quarantine* for *aquaculture* or stocking purposes in the country, *zone* or *compartment*.
4) With respect to point 3 e), *quarantine* conditions should be conducive to multiplication of the pathogen and eventually to clinical expression. If *quarantine* conditions are not suitable for pathogen multiplication and development, the recommended diagnostic approach might not be sensitive enough to detect low *infection* level.

This Article does not apply to *aquatic animals* listed in point 1 of Article 11.1.3.

Article 11.1.9.

Importation of aquatic animals and aquatic animal products for processing for human consumption from a country, zone or compartment not declared free from infection with abalone herpesvirus

When importing, for processing for human consumption, *aquatic animals* or *aquatic animal products* of species referred to in Article 11.1.2. from a country, *zone* or *compartment* not declared free from *infection* with abalone herpesvirus, the *Competent Authority* of the *importing country* should assess the *risk* and, if justified, require that:

1) the consignment is delivered directly to and held in *quarantine* or containment facilities until processing into one of the products referred to in point 1 of Article 11.1.3., or products described in point 1 of Article 11.1.11., or other products authorised by the *Competent Authority*; and
2) water used in transport and all effluent and waste materials from the processing are treated in a manner that ensures inactivation of AbHV or is disposed in a manner that prevents contact of waste with *susceptible species*.

For these *commodities* Member Countries may wish to consider introducing internal measures to address the *risks* associated with the *commodity* being used for any purpose other than for human consumption.

Article 11.1.10.

Importation of live aquatic animals intended for use in animal feed, or for agricultural, industrial or pharmaceutical use, from a country, zone or compartment not declared free from infection with abalone herpesvirus

When importing, for use in animal *feed* or for agricultural, industrial or pharmaceutical use, live *aquatic animals* of species referred to in Article 11.1.2. from a country, *zone* or *compartment* not declared free from *infection* with abalone herpesvirus, the *Competent Authority* of the *importing country* should require that:

1) the consignment is delivered directly to, and held in, *quarantine* facilities for slaughter and processing into products authorised by the *Competent Authority*; and
2) water used in transport and all effluent and waste materials from the processing are treated in a manner that ensures inactivation of AbHV.

This Article does not apply to *commodities* referred to in point 1 of Article 11.1.3.

Article 11.1.11.

Importation of aquatic animals and aquatic animal products for retail trade for human consumption from a country, zone or compartment not declared free from infection with abalone herpesvirus

1) *Competent Authorities* should not require any conditions related to *infection* with abalone herpesvirus, regardless of the *infection* with abalone herpesvirus status of the *exporting country*, *zone* or *compartment*, when authorising the importation or transit of off the shell and eviscerated abalone meat (chilled or frozen) which have been prepared and packaged for retail trade and which comply with Article 5.4.2.

   Certain assumptions have been made in assessing the safety of the *aquatic animal products* mentioned above. Member Countries should refer to these assumptions at Article 5.4.2. and consider whether the assumptions apply to their conditions.

   For these *commodities* Member Countries may wish to consider introducing internal measures to address the *risks* associated with the *commodity* being used for any purpose other than for human consumption.
2) When importing *aquatic animals* or *aquatic animal products*, other than those referred to in point 1 above, of species referred to in Article 11.1.2. from a country, *zone* or *compartment* not declared free from *infection* with abalone herpesvirus, the *Competent Authority* of the *importing country* should assess the *risk* and apply appropriate *risk* mitigation measures.