Subject: Guidelines for the Importation and Culture of the Pacific White Shrimp (*Penaeus vannamei*)

Pursuant to the provisions of Fisheries Administrative Order No. 225, Series of 2007 entitled "Allowing the importation of the broodstock of Pacific White Shrimp (*Penaeus vannamei*) and culture of the offspring thereof" the following rules and regulations are hereby issued:

Section 1. **Shrimp Broodstock Importation** - the following measures shall be observed in the importation of *P. vannamei* broodstock:

a. **Pre-border Biosecurity Measures**

1.) Prior to the issuance of special import permit to accredited shrimp hatchery for importation of SPF/SPR *P. vannamei* broodstock, Proponent shall submit a **CERTIFICATE OF COMPLIANCE** duly signed by the National BFAR Director. The issuance of the Certificate shall be based on the results of the inspection of hatchery facilities that shall be authorized to breed *P. vannamei*. Inspection and accreditation shall be undertaken by National Fisheries Research and Development Institute (NFRDI) to be assisted by concerned BFAR Regional Offices.

2.) The broodstock to be imported must only come from the following Pacific White Shrimp broodstock facilities originating from the United States of America known to have the capacity in producing broodstock that are Specific Pathogen Free (SPF) and/or Specific Pathogen Resistant (SPR).

i. High Health Aquaculture, Incorporated (Hawaii)

ii. Kona Bay Marine Resources (Hawaii)

iii. Molokai Sea Farms International (Hawaii)

iv. Rainbow Hawaii Farms (Hawaii)

v. Shrimp Production Hawaii Inc. (Hawaii)

vi. Shrimp Improvement Systems, Incorporated (Florida)

vii. Harlingen Shrimp Farms, Ltd. (Texas)

vii. SyAqua USA (Kentucky)
The SPF/SPR facilities verified list is subject to change periodically depending on the updated list provided by the Oceanic Institute or the United States Marine Shrimp Farming Program Consortium.

3.) The broodstock facility selected by the importer must have a minimum two (2) years disease free status as certified by competent authority from the country of origin. In addition, the broodstock facility shall likewise submit its disease history for the period covering its commercial establishment to the present.

4.) The broodstock facility shall submit samples taken from the lot where the intended stock for shipment shall be drawn. Said samples shall be forwarded to the USMSFP Shrimp Disease Reference Laboratory, the Aquaculture Pathology Laboratory, Department of Veterinary Science and Microbiology, University of Arizona, for diagnostic as to their SPF status on the following pathogens:

   a. Taura Syndrome Virus (TSV)
   b. White Spot Syndrome Virus (WSSV)
   c. Infectious hypodermal and Haematopoietic Necrosis Virus (IHHNV)
   d. Yellow Head Virus Disease (YHVD)
   e. Baculovirus Penaeid (BP)
   f. Hepatopancreatic Parvo-like Virus (HPV)
   g. Necrotizing Hepatopancreatitis (NHP)
   h. Monodon Baculo Virus (MBV)
   i. Baculoviral Mid-gut Gland Necrosis Virus (BMN)
   j. Infectious Myo-Necrosis Virus (IMNV)

5.) No import permit shall be issued unless the documents specified in the pre-border Biosecurity measures shall have been complied with.

6.) The imported broodstock shall be allowed entry into the country only at the Ninoy Aquino International Airport (NAIA), the broodstock shipment should take the most direct route from its origin to the Philippines. No trans-shipment will be allowed. Should there be an interruption in the transport (delayed or cancelled flights), any competent authority within the area shall be notified immediately. Said authority shall issue a certification relating to the interruption and certify that the shipment was not co-mingled with other shipment and that the intended shipment was not exposed or subjected to any risk of contamination. In case of broodstock shipment using chartered or special flights to other Philippine international airports other than NAIA, an advance notice shall be given to BFAR Central Office, to enable designated Fisheries Quarantine Officers and Fish Health Officers to be present at the port of entry.
b. Border Inspection Measures

1. Upon arrival, the imported broodstock shall be presented for documentary inspection at the Fisheries Inspection and Quarantine Service (FIQS) at the NAIA.

2. After documentary inspection and verification, the imported broodstock shall be transported directly to the BFAR accredited shrimp hatchery facility. The importer, or its designated representative, together with representative from the Fisheries Regulatory and Quarantine Division (FRQD) will accompany transfer to the facility.

3. One percent (1%) but not more than ten (10) pieces of representative broodstock sample will be turned over to BFAR Fish Health Central Laboratory for verification of the laboratory results given prior to shipping and accompanying Health Certificate.

c. Post-border Biosecurity Measures

Upon arrival at the facility, the broodstock shall be confined in designated holding tanks for quarantine and subsequent maturation and breeding purposes.

d. Testing and Disease Detection

1. At PL1-PL3, samples shall be taken from the larval rearing tanks for testing. As per OIE Diagnostic Manual for Aquatic Animal Disease (2006).

2. All samples shall be subjected for analysis for Taura Syndrome Virus (TSV), Baculovirus Penaeid (BP), Necrotizing Hepatopancreatitis (NHP) and Infectious Myo-Necrosis Virus (IMNV) at their respective BFAR Regional Fish Health Laboratories or any accredited laboratory.

3. Regular monitoring for the four (4) above mentioned OIE reportable diseases of P. vannamei will be conducted by their respective BFAR Regional Fish Health Laboratories, as per OIE Manual of Diagnostic Tests for Aquatic Animal (2006).

4. In case of conflict on results, verification shall be done solely by BFAR Central Fish Health Laboratory in Quezon City. Results issued by BFAR Central Fish Health Laboratory shall be final.
e. **Certifying the broodstock**

1. To keep the integrity and Quality of Postlarvae used for commercial production in different farming systems, only the original certified SPF/SPR broodstock from BFAR verified and recognized broodstock facilities and stocked at accredited shrimp hatcheries shall be the only source of the shrimp postlarvae. The selling of shrimp eggs and nauplii by accredited hatcheries to other shrimp hatcheries is strictly prohibited.

2. Replacement for spent broodstock shall always originate from verified SPF/SPR shrimp stock only. No Philippine island-born broodstock shall be returned to the accredited hatcheries to produce the postlarvae. Violation of this regulation will warrant outright cancellation of hatchery accreditation. This shall be strictly implemented.

f. **Minimum Biosecurity Standards for Controlled Hatchery Facility** - The importer shall comply with the minimum biosecurity standards for broodstock maturation, larval rearing and production of F1 offspring, prior to the issuance of an import permit. The following standards shall be used in evaluation of each application of proponent shrimp hatchery for accreditation.

1. **Water Treatment** - The water treatment system should ensure the provision of high quality water. The following protocol is prescribed:
   
   a. Incoming water filtration. Initial filtering through sub-sand well points, sand filters (gravity and pressure) or mesh bag filters into the first reservoir for settling tank. After disinfection, final filtration using fine mesh filter bags or membrane filters.

   b. Water disinfection and sedimentation. Initial disinfection through chlorination. Then disinfection using UV lights (or ozone) did after the final filtration.

   c. Water conditioning. Through the use of activated charcoal filters and use of Ethylene Diamine Tetra Acetic Acid (EDTA) to chelate remaining heavy metals impurities.

2. **Effluent Water Treatment Hatchery and Growout** - All water discharged from the hatchery should be temporarily stored in a catching pond and treated with hypochlorite solution (>20 ppm active chlorine for not less than 60 minutes) or other effective disinfectant prior to discharge.

3. **Physical Isolation** - The different production facilities shall be physically isolated from one another, specifically, maturation, spawning and hatching, larval and nursery rearing, indoor and outdoor algal culture and live food production.
4. Aeration - Air flow should be controlled between sections of the facility. Glass wool filters should be installed in the main aeration line servicing all sections.

5. Sanitation and Disinfection:
   a. Worker sanitation - washing/bathing routines.
   b. Installation of foot baths and hand washing stations at entry into each separate culture area (all entrance points).
   c. Traffic flow control in sections within the facility - one way: entrance to exit areas.
   d. Control movement of potential disease carriers near the testing area.
   e. Disinfection of equipment and materials in multiple points of use.
   f. Restrict visitors.

The facility shall be exclusively used for the P. vannamei breeding and its fry production and that no other species should be reared in the facility.

g. The following documents shall be presented for inspection at the port of entry by the importer/broker of P. vannamei broodstock to FIQS and BoC personnel.
   1. Certificate of Compliance
   2. Two (2) years disease-free status as certified by Competent Authority at the Federal or State level. Said certificate shall be accompanied by the number of broodstock submitted for examination and identification of organs/tissues where the DNA/RNA were extracted.
   3. Disease History of Broodstock facility of origin
   4. Laboratory results from USMSFP Reference Laboratory at the Aquaculture Pathology Laboratory, Department of Veterinary Science and Microbiology, University of Arizona. The results should indicating number of broodstock submitted for examination and identification of organs/tissues where the DNA/RNA were extracted.
   5. Health Certificate from appropriate Country of Origin Competent Authority
   6. Detailed travel documents
Section 2. **Shrimp Grow-out Facility Certification** - The following measures shall be observed in certifying shrimp farms to culture *P. vannamei*.

a. **Creation and Composition of a Panel which will accredit *P. vannamei* grow-out farms.** An accreditation panel for *P. vannamei* grow-out farms shall be created and shall consist of the following:

   1. Regional Director of the BFAR (or representative) where the grow-out farm to be accredited is located.
   2. Head of aquaculture division of the said BFAR Regional Office
   3. Municipal fisheries officer or representative of the Municipal Agriculturist Office where the growout farm to be accredited is located.
   4. One shrimp expert to be appointed by BFAR.

b. **Accreditation Process for Grow-out Farms:**

   1. All shrimp grow-out farms wanting to avail of shrimp fry from BFAR-accredited *P. vannamei* hatcheries and culture the same shall file an application with the BFAR Regional Offices for accreditation as recipient farms for the commercial culture the same, for traceability of shrimp produced under the program and incompliance with international fisheries export standards.
   2. The Panel shall conduct an ocular inspection of the proposed grow-out farm determine its location, area, facilities, its suitability for *P. vannamei* culture and the kind of culture system it can handle;
   3. Farm Facilities. The proposed grow-out farm must be designed, situated and operated in such a manner that will prevent and minimize risk of escapes. It should be able to comply with the minimum requirement for basic farm facilities in accordance with the Good Aquaculture Practices (GAP) and the Code of Practices for Responsible Aquaculture and Code of Conduct for Responsible Fisheries

c. **Issuance of Farm Certification.**

   The List of Shrimp Grow-out Farms which have complied with the requirement as provided in the Guidelines will be presented by the Panel to their respective BFAR Regional Directors for approval and issuance of FARM CERTIFICATION. Validation of certification shall be three (3) years and subject to regular evaluation to determine the compliance by the farm with the Guidelines. Duplicate copy of the Farm Certification shall be submitted to the BFAR Central Office as part of record-keeping

d. **Shrimp Postlarval Source.**

   Accredited grow-out farms should use only high health *P. vannamei* shrimp fry coming from shrimp hatcheries accredited by BFAR as provided for in Section II of this Guidelines. Upon reservation for postlarvae from the accredited
hatcheries Shrimp Fry Source Certification (SFSC) shall be issued to the qualified shrimp grow-out farms, stating the following information:

1. Farm registration number
2. Farm operator
3. Farm location
4. Pond area
5. Stocking density
6. Stocking date

**e. Transport Requirement for the Produce.**

For the proper monitoring of the final shrimp product and in order to prevent final shrimp products coming from other source/s from entering the market, processing plants, consignacion and other outlets, farmers shall produce current Shrimp Fry Source Certification (SFSC) from the accredited hatcheries. Absence of the said Shrimp Fry Source Certification shall warrant confiscation of the final shrimp product.

**f. Record-Keeping Requirement.**

To establish product traceability, the following data shall be required to be recorded for each pond and every production cycle by the farm to be certified:

1. Pond identification number
2. Pond Area
3. Stocking date
4. Quantity of postlarvae stocked
5. Source of postlarvae (hatchery)
6. Antibiotic and drug use
7. Herbicide, algaecide and other pesticide use
8. Manufacturer and lot number for each feed used
9. Harvest date

The accredited hatcheries shall submit on regular basis the triplicate copy of the SFSC to their respective BFAR Regional Offices for record-keeping and counter-checking. The original copy shall be provided to the recipient grow-out farm and the duplicate copy shall be kept at the accredited hatcheries for record purposes.

**Section 3. Other Factors in Both Hatchery And Grow-Out farms.** The following factors should be considered in the hatchery and grow-out farm facility:

**a. Outbreak of the Taura Syndrome Virus:**

Any shrimp farm found positive for Taura Syndrome Virus (TSV) shall be quarantined. No shrimp or shrimp products shall be allowed to leave the farm. Pond water shall be treated with calcium hypochlorite to attain an active chlorine level of 100 ppm. The water shall be discharged only after
three days to ensure that the active chlorine has dissipated and shall no longer pose a problem to the organisms in the receiving water.


All documentation materials shall be printed only at the BFAR Central Office with proper security features to prevent tampering. As added security, all Certificates issued to BFAR Regional Offices shall be properly coded for ease in traceability and accountability.

SECTION 4. Effectivity. - This order shall take effect fifteen (15) days after its publication in the Official Gazette and/or in two (2) newspapers of general circulation and fifteen (15) days after its registration with the Office of the National Administrative Register.

ISSUED this 8 day of JAN 2007 at Quezon City, Metropolitan Manila, Philippines.

[Signature]

ARThUR C. YAP
Secretary

Recommended by:

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