MINISTRY OF AGRICULTURE

(Department of Animal Husbandry, Dairying and Fisheries)

NOTIFICATION

New Delhi, the 30th April, 2009

G.S.R. 302(E).—In exercise of the powers conferred by section 3 read with section 24 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), the Central Government hereby makes the following rules to amend the Coastal Aquaculture Authority Rules, 2005, namely

1. (1) These rules may be called the Coastal Aquaculture Authority (Amendment) Rules, 2009.

(2) They shall come into force on the date of publication in the Official Gazette.

2. In section 2 of the Coastal Aquaculture Authority Rule, 2005 (hereinafter referred to as the said rules),

(i) after clause (c), the following clause shall be inserted, namely:-

'(ca) "Farm" means coastal aquaculture farm intended for culturing endemic or exotic shrimp species, fish or any other aquatic animas in saline or brackish water;';

(ii) after clause (f), the following clause shall be inserted, namely:-

'(fa) "Hatchery" means shrimp hatchery intended to rear broodstock of endemic or exotic shrimp species, fish or any other aquatic animals in saline or brackish water for breeding to produce its seed for supply to farms;';

(iii) after clause (g), the following clause shall be inserted, namely:-

'(ga) "Quarantine" means procedures laid down in the guidelines under Livestock Importation Act, 1898;'.

3. "Annexure" to the said rules shall be renumbered as "Annexure-I" and after "Annexure-I" as so renumbered, Annexure-II shall be added at the end, namely:-

"Annexure-II

Guidelines for Regulating Hatcheries and Farms for introduction of *Litopenaeus vannamei*

PART I

Safeguards and regulations for operation of hatcheries

1. Criteria for application to breed vannamei

"(1) Hatcheries engaged or intending to be engaged in seed production having the required biosecurity facilities as specified by the Coastal Aquaculture Authority shall be eligible to apply for registration under the Coastal Aquaculture Authority Act, 2005 (24 of 2005) and the rules framed thereunder and for permission to import Specific Pathogen Free (SPF) broodstock of *L. vannamei* or SPF juveniles of *L vannamei* (upto 10 g size) for rearing to adult broodstock and to produce and sell post larvae (PL) of *L. vannamei*.",

(substituted vide Notification No.G.S.R.280 (E) dated 23rd March, 2012)

(2) Approval of the hatchery for rearing *L. vannamei* will be given by Coastal Aquaculture Authority after due inspection of the hatchery facilities by a team constituted by Coastal Aquaculture Authority for this purpose.

(3) The hatchery facilities should have strict bio-security control through physical separation or isolation of the different production facilities which is a feature of good hatchery design. In existing hatcheries with no physical separation, effective isolation may also be achieved through the construction of barriers and implementation of process and product flow controls.

(4) The hatchery facility should have a wall or fence around the periphery of the premises, with adequate height to prevent the entry of animals and unauthorized persons. This will help to reduce the risk of pathogen introduction by this route, as well as improve overall security.

2. Sanitary requirement

(1) Entrance to the hatchery should be restricted to the personnel assigned to work exclusively in this area and a record of personnel entering the facility should be maintained by the security personnel.

(2) Hatchery staff should enter through a shower or dressing room, where they remove their street clothes and take a shower before entering another dressing room to put on working clothes and boots. At the end of the working shift, the sequence should be reversed.

(3) There should be means provided for disinfection of vehicle tyres (tyre baths at the gate), feet (footbaths containing hypochlorite solution at >50 ppm active ingredient), and hands {bottles containing iodine-PVP (20 ppm and/or 70% alcohol)} to be used upon entering and exiting the unit.

3. Water intake

(1) Each functional unit of the hatchery should have independent water treatment facility and it should be isolated from all other water supply systems. Separate recirculation systems may be used for each functional unit of hatchery to reduce water usage and improve bio-security, especially in high-risk areas.

(2) Water for the hatchery should be filtered and treated to prevent the entry of vectors and pathogens that may be present in the source water. This may be achieved by initial filtering through sub-sand well points, sand filters (gravity or pressure), or mesh bag filters into the first reservoir or settling tank. Following primary disinfection by chlorination, and after settlement, the water should be filtered again with a finer filter and then disinfected using ultraviolet light (UV) and/or ozone.

(3)The water supply system may include use of activated carbon filters, the addition of ethylene diamine tetra acetic acid (EDTA) and temperature and salinity regulation.

4. Water treatment and discharge of waste water

(1) The discharged water from the hatchery, should be held temporarily and treated with hypochlorite solution (>20 ppm active chlorine for not less than 60

min) or other effective disinfectant prior to discharge. This is particularly crucial where the water is to be discharged to the same location as the abstraction point.

(2) The seawater to be used in the facility must be delivered into a storage tank where it will be treated with hypochlorite solution (20 ppm active ingredient for not less than 30 minutes) followed by sodium thiosulphate (1 ppm for every ppm of residual chlorine) and strong aeration.

(3) No waste water shall be released out of the hatchery without chlorination and dechlorination, especially to prevent the escape of the larvae into the natural waters. Effluent Treatment System (ETS) should be designed to include this provision.

5. Disinfection of implements

(1) Used containers and hoses must be washed and disinfected with hypochlorite solution (20 ppm) before further use.

(2) Each broodstock holding tank should have a separate set of implements which must be clearly marked and placed near the tanks. Facilities for disinfection of all the implements at the end of each day's use should be available.

"5 A. Quarantine. - For the purposes of these rules the quarantine procedures shall be complied with as specified in the notification of the Government of India in the Ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii), vide number S.O. 2482(E), dated the 15th October, 2008, issued under sub-section (1) of section 3 of the Livestock Importation Act, 1898 (9 of 1898).

(inserted vide Notification No.G.S.R.280 (E) dated 23rd March, 2012)

6. Broodstock in hatchery

(1) Only SPF broodstock cleared through the quarantine should be used in the hatchery for seed production.

(2) Use of pond-reared broodstock is strictly prohibited.

(3) Hatcheries involved in *L. vannamei* seed production should not use any other species within the hatchery premises.

7. Seed Production and sale

"(1) Nauplii shall be sold only to the hatcheries permitted by the Authority to rear the seed of SPF *L.* vannamei with due biosecurity protocols. Hatcheries rearing nauplii to the PL stage for sale should maintain record of the number of nauplii received and the PL produced and sold and submit the same to the Authority on a regular basis, failing which the hatcheries shall be derecognized to receive nauplii in future."

(substituted vide Notification No.G.S.R.280 (E) dated 23rd March, 2012)

(2) Post larvae should be sold only to the farmers who have registered with the Coastal Aquaculture Authority specifically for the culture of *L. vannamei*. A copy of the Certificate of Registration issued by Costal Aquaculture Authority should be retained by the hatchery operator for inspection.

(3) Detailed record of the seed production as well as sale including the name and address of the buyer or farmer should be maintained.

8. Disease reporting and record maintenance

(1) Any disease outbreak in the hatchery should be reported immediately to Costal Aquaculture Authority.

(2) The hatcheries should maintain a record of the imported broodstock with details of source, quantity imported, the number of mortality, eggs produced, nauplii produced, post larvae produced, post larvae sold, name and address of the farmer to whom sold, date and number of the registration and permission certificate issued by Costal Aquaculture Authority and should report these in their quarterly compliance reports to be submitted to Coastal Aquaculture Authority as per the format given in Form-IV

9. Inspection

Coastal Aquaculture Authority authorized personnel shall visit periodically to check the status of the broodstock, the seed production and sale.

10. Bank Guarantee

The approved hatcheries will deposit a bank guarantee for rupees five lakh in favour of the Costal Aquaculture Authority to ensure compliance of the guidelines by them and in the event of any violation the Bank Guarantee shall be invoked.

PART II

Norms and regulations for approval and operation of farms

1. Eligibility criteria for farms

"(1) Aquaculture farmers who are registered with the Authority shall submit a separate application for permission for farming *L. vannamei*:

Provided that the unregistered farmers shall submit application for registration specifying their intention to culture *L. vannamei* and the application shall be decided in accordance with the provisions of these rules."

(substituted vide Notification No.G.S.R.280 (E) dated 23rd March, 2012)

"(2) Inspection team authorized by the Authority shall inspect the farm and based on the recommendation regarding the suitability of the facility for farming of *L. vannamei* application shall be processed by the Member Secretary for consideration of the Authority for issuing permission to farms for farming of *L. vannamei* ."

(substituted vide Notification No.G.S.R.914 (E) dated 18th December, 2009)

(3) Farms must establish adequate bio-security measures including fencing, reservoirs, bird-scare, separate implements for each of the ponds etc. The farms should be managed by the personnel who are trained and/or experienced in management of bio-security measures.

(4) Farms irrespective of their size should have an Effluent Treatment System (ETS). Since loading of the environment with suspended solids is very high during the harvest, the ETS should be able to handle the waste water let off during harvest. Harvesting should be sequential depending on the size of the ETS. The quality of the waste water should conform to the Standards prescribed under the Guidelines issued by Coastal Aquaculture Authority.

2. Water discharge protocols

(1) In case of any outbreak of disease, distress harvesting is permitted through netting only and the water should be chlorinated and dechlorinated before release into drainage system.

(2) Waste water should be retained in the ETS for a minimum period of two days.

(3) Farms which follow Zero Water Exchange system of farming will also be encouraged to take up *L. vannamei* farming.

3. Biosecurity considerations

(1) It is advisable not to culture SPF *L. vannamei* if the neighbouring farms are culturing native species, which are non-SPF, since vannamei is susceptible for all the viral pathogens reported in *Penaeus monodon* in India.

"(2) Farms approved for *L. vannamei* culture shall not be permitted for simultaneous farming of any other crustacean species in the same farm.

(3) For shifting culture from one species to another, adequate dry out period shall be maintained during pond preparation in accordance with the norms issued by the Authority for this purpose from time to time."; and

(substituted vide Notification No.G.S.R.280 (E) dated 23rd March, 2012)

4. Norms for culture of *L. vannamei*

(1) Tested and certified seed should be procured only from hatcheries authorized for import of the vannamei broodstock and/or production of vannamei seed.

(2) Stocking densities should not exceed 60 no./m^2.

(3) Strict compliance for the waste water standards is a mandatory requirement and Inspection team authorized by Coastal Aquaculture Authority in each case shall monitor the quality of waste water as per the procedures laid down in the Regulations under Coastal Aquaculture Authority Act, 2005.

5. Record maintenance at farms

(1) The farmers should maintain a detailed record of the name and address of the hatchery from where they procured the seed, quantity procured, number and date of the valid registration of the hatchery.

(2) The farmers should record the quantity of shrimp produced, sold, and the name and address of the processor to whom sold and this should be reported to the Coastal Aquaculture Authority through quarterly compliance reports as per the proforma given in Form V.

"**6. Destruction of unauthorized stock.** – If any unauthorized seed production or culture of *L. vannamei* is noticed during the inspection of farms or hatcheries by the inspection team of the Authority, the inspection team may destroy such stock by such method as it thinks fit."

(inserted vide Notification No.G.S.R.280 (E) dated 23rd March, 2012)

Form IV

[see guidelines {Annexure-II, Part –I, 8 (2)}]

Format for Quarterly Compliance Report from Hatcheries

The report should contain the following information:

1. Name and Address
2. Date and number of certificate of registration and permission to import
3. Number of broodstock imported, males and females
4. Transport mortality
5. Quarantine mortality
6. Total number of spawning
7. Total number of eggs produced
8. Total number of nauplii produced
9. Total number of post larvae produced
10. Report on general aquatic health monitoring and any unusual mortality
11. Total number of post larvae sold to the farmers
12. Details of the farmers to whom sold (should include information on the name, address, Registration number and copy of the permission letter for culturing *L. vannamei* issued by Coastal Aquaculture Authority

Place
Date

Signature
Name of the Authorized Signatory

Form V

[see guidelines {Annexure-II, Part –II, 5 (2)}]

Quarterly Compliance Report from Farms

The report should contain the following information

1. Name and Address
2. Date and number of Certificate of Registration issued by Coastal Aquaculture Authority
3. Date and number of permission letter from Coastal Aquaculture Authority for culturing *L. vannamei*
4. Number of post larvae purchased
5. Name and address of the hatchery
6. Number and date of the certificate of registration of the hatchery
7. Letter from the hatchery indicating the number of post larvae sold to the farmer
8. Total number stocked
9. Total weight harvested
10. Average size at harvest
11. Days of culture
12. Details of sequential harvesting (depending on the size of the ETS) carried out
13. Dates on which Inspection committee visited and collected samples

Place
Date

Signature
Name of the Authorized Signatory.".

[F. No. 33036/1/2008-Fy(T-2)]

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