Guidelines and Annexes

Application for Authorisation for Fish Farming in the Sea

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Guidelines and Annexes

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Part 1 – GUIDELINES

Please refer to these guidelines when preparing your detailed project write-up

A **Social Impact Assessment**

1. A company intending to carry out a fish farming project in the sea must submit a social impact assessment.

2. The purpose of the social impact assessment is to identify the impact of the proposed development on the neighbourhood. It analyses, monitors and manages the intended and unintended social consequences, both positive and negative, of the planned development.

3. All issues that affect people, directly or indirectly (including potential conflicts with other users of the area of the sea) are pertinent to the social impact assessment.

4. The following key elements must be considered while preparing the social impact assessment:
    a. Identification of the positive and negative social aspects of the development
    b. Consultation process with stakeholders
    c. Mitigating measures
    d. Social development programme (Eg: Scholarships to children of fishermen social amenities, community development and other facilities, priority of employment to the local communities, support to artisanal fisherman in the event of natural calamities, collaborating with the Fisherman Investment Trust for specific projects geared for the fisherman)

5. The marine aquaculture company shall provide a written undertaking to BOI indicating the benefits that shall accrue to the local community and to small entrepreneurs generally, in terms of employment and business opportunities including a proposed time frame.

6. The marine aquaculture company must maintain records on the implementation of the social development programme.

B **Guiding Principles for Aquaculture in the Sea**

To maintain ecological and economic sustainability, the aquaculture industry has to adopt a set of principles that entail:

- Ecologically sustainable development of aquaculture
- Economic viability
- Long term protection of the environment to ensure the sustainability of aquaculture in Mauritius
- Compliance with regulations of the Competent Authority relating to fish farming and food processing

The undertaking could include the following guiding principles:

1. Committed to minimizing possible adverse impacts from our activities
2. As aquatic farmers, we have a strong vested interest in healthy aquatic ecosystems
3. It is our policy to act as responsible stewards of the environment
4. Will continually seek to achieve long-term economic viability and competitiveness while maintaining our commitment to environmental sustainability and stewardship
5. Promote the safety of seafood and other aquatic foods for human consumption

C	**Aquaculture Operations Management Plan** The following information should be included in the Aquaculture Operations Management Plan: 1. Measures to reduce the risk of escape 2. Policy regarding the use of pharmacologic products 3. Source of brood stock, eggs, larvae intended 4. Fish feed (type, source, feed management, method of storage, etc.) 5. Fish transfers 6. Disease Risk Management Plan 7. Maximum volume of production in the cages 8. Details of farming system - monoculture or polyculture 9. Type of gear(s) to be used for fishing in the fish farm 10. Management of waste
D	**Technical Details of the Hatchery** Details on the following components of the project should be included 1. Hatchery layout plans and process flow 2. Infrastructure and equipment – ponds, nursery ponds, pump, wastewater treatment, generator, filter, water steriliser, etc 3. Species (main and secondary species if applicable) 4. Origin of eggs - internal production or from other sources (to be specified) 5. Yearly production target in terms of numbers and sizes of fry (of each species if applicable) 6. Photoperiod and thermoperiod manipulation to shift reproductive cycles, if applicable 7. Marketing aspects (fish size and season for sales), if applicable 8. Feed production and culture facilities (please specify species and origin of plankton) 9. Laboratory test facilities 10. Disposal of effluent
E	**Technical Details of the Processing Plant** Details on the following components of the project should be included: 1. Layout plans of processing unit 2. Description of the production process flow 3. General food safety measures based on HACCP Principles 4. Infrastructure and equipment to be used 5. Waste disposal
F	**Technical Details of the Quarantine Facilities (if applicable)** Details on the following components of the project should be included: 1. Quarantine layout plans 2. Infrastructure and equipment – tanks, filters, pump, generator, etc 3. Wastewater treatment system 4. Waste disposal 5. Feed to be used 6. Disease Risk Management Plan
G	**Off-site development work** Details on the following components of the project, if any: 1. Road 2. Services (water, electricity, wastewater, drains, etc)

Part 2 - REQUIREMENTS AND CONDITIONS GOVERNING FISH FARMING

- Fish farms have to be registered and approved by the Competent Authority before the implementation of their project (please refer to Annex 1)
- Fish farms will have to comply to the Standards of the Competent Authority governing fish farming in Mauritius
- Fish farms will have to comply with the policy guidelines of the Ministry of Agro Industry, Food Production and Security(please refer to Part 3 of this document)
- Upon request, mandatory records have to be made available by the relevant authorities

Promoters will have to abide to the following when implementing and operating their fish farm projects

A	**Implementation phase** 1. Record of the physico-chemical and ecological characteristics of the sea concession before implementation including photos/film 2. Fish farms have to prepare a Standard Operating Procedure that has to be approved by the Competent Authority (please refer to Annex 2 for guidelines in the preparation of this Procedure) 3. If vertically integrated, the hatchery and processing facilities will have to be approved by the Competent Authorities (please refer to Annex 3 a-c) 4. The Competent Authority will make regular site visits to ensure compliance with approved plans submitted by the promoter. 5. The Competent Authority will provide general guidance to the operator throughout the implementation phase of the project
B	**Operational phase** 1. Physico-chemical records of the sea concession every day. 2. Monthly bio-data records of the sea concession. 3. Records on the ecological analysis of the area of the sea to be undertaken every year. 4. Records of results from gross and microscopic examinations during quarantine (if any) 5. Before using any veterinary drug or other pharmacologically active substance, it has to be notified and approved by the Competent Authority. Such use should be recorded (products used, when it was administered, when the treatment stopped, etc). 6. Fish farmers are prohibited to use pharmaceuticals listed in Annex 4 in their fish farming activities 7. Fish feed and feed ingredients to be used should meet the standards of the Competent Authority (see Annex 5). 8. Movement of eggs, gametes, and sexually mature aquacultured fish from one farm to another has to be approved by the Competent Authority and recorded.

D	**Importing brood stock, eggs, fry and fingerlings** The following regulations will govern these importations. 1. A permit will be required from the Ministry in charge of fisheries. 2. Each consignment must be accompanied by the completed Application for Health Certificate to be submitted to the Competent Authority of Mauritius (see Annex 6 – Application for a Health Certificate for the import of brood stock in Mauritius). 3. Each consignment will be subject to a quarantine (Annex 7). 4. After the quarantine, the imported products should be transferred directly to the farm. 5. Mortality occurred during the transfer should be reported to the Competent Authority. 6. Record of any water exchange during transfers including source of new water and site of release of water.
E	**Marked-off Areas in the Fish Farming Zones** 1. The fish farming zone must be clearly and visibly marked-off (Annex 8) a. The extremities of the fish farm should be demarcated by at least four buoys conforming to Maritime Buoyage System of the International Authority of Lighthouse Association - Special Buoys and Marks that do not represent navigational aids. b. The buoys should be painted yellow and have a top-mark in the shape of a yellow lying cross (X). c. They must have a cylindrical shape. d. The light to be used at night should also be white with flashing 11-14 times per minute. 2. The marked-off area must be properly maintained.
F	**Disease Outbreak** 1. Any suspected outbreaks of any diseases should be reported to the Competent Authority immediately by phone: +230 206 2800 (from 08:45 to 16:00) and +230 798 8370 (after office hours) or +230 259 5336 followed by an email: caseafood@mail.gov.mu; cc: fisheries@mail.gov.mu. 2. Abnormal mortality of any fish should be reported to the Competent Authority immediately by phone: +230 206 2800 (from 08:45 to 16:00) and +230 798 8370 (after office hours) or +230 259 5336 followed by an email: caseafood@mail.gov.mu; cc: fisheries@mail.gov.mu. 3. Dead fish and live fish showing clinical signs of disease should be removed and disposed of onshore under the supervision of the Competent Authority immediately.

G	**Cancellation or Suspension of a concession** Important information regarding a sea area concession ➢ No holder of a concession of sea area granted in a fish farming zone can transfer the concession right, except with the authorization of the Prime Minister. ➢ No holder of a concession of sea area granted in a fish farming zone can raise debt capital by offering the concession agreement as collateral or guarantee, without the authorization of the Prime Minister. Your concession can be cancelled or suspended in the following circumstances: 1. The area subject to the concession is used for any other purpose other than that for which it has been granted without the prior written approval of the Prime Minister. 2. The project constitutes a nuisance, or causes any detriment to, or be a source of pollution of the natural resources and the environment. 3. Failure to carry out, or insufficiently carries out, fish farming in the area subject of the concession. 4. Failure to comply with the legislation governing fish farming and the requirements of the Competent Authority. 5. Failure to comply with the conditions of the Deed of Concession. 6. Failure to comply according to the Fisheries and Marine Resources Act 2007 as subsequently amended.
H	**Removal of a concession right** The Prime Minister may, on the ground of public interest, or of the implementation of a project of national interest that modifies the status of the fish farming zone, remove a concession from a concessionaire, subject to payment of a reasonable compensation to the concessionaire.

Part 3 - POLICY GUIDELINES FOR FISH FARMING AT SEA

MINISTRY OF AGRO INDUSTRY, FOOD PRODUCTION AND SECURITY

The guidelines address the consequences of farming finfish at sea, specifically the need to prevent pollution, protect wild fauna and protect the rights of citizens to the sea.

The guidelines reflect a policy that shall be considered by the promoter while drafting the project proposal for approval.

Guideline 1 - Selection of appropriate species
Farmers are encouraged to consider fish species as per recommendation of the Aquaculture Master Plan for farming at sea.

Guideline 2 - Site location
Location of fish farms should be in accordance with the Aquaculture Master plan and the Fisheries Marine Resources Act 2007 (amended) at sites suitable for maintaining fish in optimal health and achievement of economic sustainability whilst minimizing effects/impacts to the natural environment and marine living resources and recognizing the rights of other coastal or offshore resource users.

The site should have suitable physical attributes of depth, currents, wave and substratum. It is essential that a study of the site be carried out prior to starting an aquaculture project at sea to establish baseline data.

Guideline 3 - Stocking density
The total mass and density of fish at a given site should be as such so as to prevent pollution, outbreaks of diseases and parasites.

Guideline 4 - Pollution control
The fish farm should be properly managed to minimize impact on the environment. To maintain ecological sustainability the promoter has to:

- Ensure that necessary precautionary measures be taken to avoid adverse impacts of aquaculture activities on coastal habitats.
- Adhere to environmental management plans and monitoring requirements.
- Ensure that any effluent or surrounding water body conforms to Coastal Water Quality guidelines for Aquaculture (Please refer to Annex 9).
- Promote efficient use of extruded/eco-friendly formulated feeds by use of quality products of high conversion ratios and minimization of feed wastage.

Guideline 5 - Fish Health

The promoter should adopt proper management as regards to health of the cultured animals so as to reduce stress at all phases of the culture cycle by thorough preparation of the farms before stocking, and maintenance of optimal environmental conditions.

The promoter should attempt to limit the introduction of diseases through use of disease free stocks. Routine monitoring and recording of fish health to detect any developing problems, maintenance of biosecurity in quarantining and treating any farm components are critical elements to be considered.

For aquaculture operations to remain as free as possible of pests and disease it is important to ensure that stocks are healthy before and after introduction to a site. Concerns relating to fish health and the movement of live fish relate to the possibility of transferring or importing an "exotic" disease or disease-causing agent.

Guideline 6 - Food Safety

Focus should be placed on the safety of foods being sold on the markets. The promoter should ensure food safety and the quality of fish products, whilst reducing the risks to human health and ecosystems from chemical. The undertaking should ensure that that the product has been produced without the use of transgenic technologies, without addition of undesirable or harmful chemicals or additives, and that the environment and ecosystems have not been affected by the production facilities.

Guideline 7 - Social Responsibility

Aquaculture operators must be aware of the social contribution required by their farming activities and ensure their integration in local community development and planning. Fish farms should therefore be developed and operated in a socially responsible manner that benefits the farm, the local communities and the country, and contributes effectively to rural development and poverty alleviation in the region

These guidelines and its annexes may be subject to change and should not, in any circumstances, be treated as final. Any other information or document not listed above may be requested depending on the application.

ANNEX

Annex 1 – Registration with Competent Authority

REPUBLIC OF MAURITIUS

MINISTRY OF AGRO INDUSTRY, FOOD PRODUCTION AND SECURITY

COMPETENT AUTHORITY

SEAFOOD HUB, One Stop Shop, 4TH FLOOR, TRADE & MARKETING CENTRE, MER ROUGE

Telephone: 206 2800

Fax: 216 2293

Explanatory Leaflet

Any aquaculture production business activity must be registered with the Competent Authority.

1. For this purpose, aquaculture production business operator should fill the registration form available at the office of the Competent Authority.
2. The information gained through registration will assist in the monitoring of the farming process in Mauritius.
3. Registered information should provide the location of all sites, their facilities and what stocks they hold.
4. Each aquaculture production business operator will have to implement a Standard Operating Procedure, which focuses on aquatic health management programme at the farm level.
5. If processing of aquacultured products is carried out in the integrated processing plant, a food safety programme based on HACCP Principles should be implemented.
6. Both programmes mentioned in sections 4 and 5 must be submitted to the Competent Authority for evaluation.
7. The Competent Authority should be notified before any pharmacological substance (veterinary drugs, additives) is used at farm level.
8. A contingency plan and disease preparedness programme for infectious disease must be implemented by the operator.
9. The checklist annexed will serve as a general guide for the aquaculture business operator and will also provide information to the Competent Authority about the activities of the aquaculture business operator.
10. The Competent Authority will provide general guidance to the operator throughout the implementation of the project.
11. The Competent Authority remains at the disposal of the operator for any queries.

Registration with Competent Authority – Fish Farming

I. SEA CAGE FARMING IN LAGOONAL WATERS.

Name of aquaculture business operator:

Registered Address of aquaculture business operator:

Telephone Numbers - Office: …… Mobile:…….

Fax Number:…….

E-mail: ……..

Fill as appropriate

Nature of activity:
- Farming/ Rearing.
- Processing of aquaculture produce.

II. TECHNICAL ASPECTS OF THE AQUACULTURE PRODUCTION SYSTEM

1. Hatchery

Type of brood stock
- Brood fish
- ova
- fish weighing up to 5 grams
- fish weighing over 5 grams

Origin of brood stock
- Local
- Imported

2. Farm Location (including GPS coordinates)

Type of farming system:
- Semi Intensive
- Intensive
- Organic

Species to be cultured
Common Name:

Scientific Name:

Is the farming system monoculture or polyculture?

Nature of feeding stuffs:
- Natural
- Artificial

Origin of feeding stuffs:
- Imported
- Local

Will farmed fish be transferred to other farms?
- Yes
- No

If yes, please indicate destination.

Will cultured fish be exported to other countries for farming purposes?
- Yes
- No

III. PROCESSING PLANT ACTIVITIES

Is the processing plant integrated with the farm?
- Yes
- No

If not integrated, please indicate where processing of farmed fish will take place.

Annex 2 - Guidelines for Developing the Standard Operating Procedure for an Aquaculture Farm

I. General Information

1. Each aquaculture production business operator is required to implement an aquatic animal health programme.

2. When developing the aquatic animal health programme, the operator should take into consideration the following criteria:

    a) Origin of brood stock, eggs, larvae intended for farming purposes in order to prevent the introduction of disease agents that could cause significant impact to fish farming in Mauritius.

    b) Brood stock imported from other countries has to be accompanied by a health certificate as provided by the Competent Authority.

    c) The consignment of brood stock, eggs, larvae should comply with the guarantees, including those for packaging and labeling as will be laid down in the health certificate mentioned in (b).

    d) To ensure that imported fish of aquaculture origin, their eggs and gametes intended for farming or restocking of fish in Mauritius, are only introduced into sea cage farms and not introduced into unenclosed waters.

    e) The necessary disease prevention measures are applied during the transport of aquaculture animals in order not to alter the health status of those animals during transport, and to reduce the risk of spreading diseases;

    f) Attention has to be paid to the way fish is transported, stored and handled in order not to alter their health status and their surrounding environment as well as not to jeopardize the health status of the place of destination, and where appropriate, of places of transit.

    a) The use of any veterinary drug or other pharmacologically active substance to be used in the farming process for prophylactic, therapeutic, diagnostic or zoo technical purpose has to be notified to and approved by the Competent Authority.

3. For many aquatic animal species, predation (including cannibalism) is their natural way of feeding in their natural habitat and hence before choosing the species to be farmed, the aquaculture production business operator should take into consideration the habitat, natural environment and feeding habits of each species to be farmed.

II. Fish Health and bio security measures at farm level

Bio security measures at farm level should be implemented and need to focus on the following aspects:

- Protection of the aquaculture industry, through the establishment of safeguards to fish health, the facilities in which fish are reared and the environment.

- For improving general animal health and assisting in the prevention and control of animal disease through improved traceability, the movement of eggs, gametes, sexually mature aquacultured fish from one farm to another should be recorded and notified to the Competent Authority. Such movements will be subjected to animal health certification by the Competent Authority.

- Prevention of the entry of any disease agents into farm and hatchery stocks and facilities, including not only non-native species, but also pathogens and parasites that are normally found in the natural waters of the area.

- Emerging diseases and diseases which are exotic to Mauritius and which could have serious impact on the fish stocks in the Mauritius.

- Introduction and spread of contagious diseases transmissible to humans through farmed fish.

- Transport of imported live fish of aquaculture origin, their eggs and gametes should be direct to the farm, as stated on the health certificate mentioned in 2 (b).

- Quarantine facilities.

III. Disease monitoring and reporting

- Necessary precautionary measures should be taken by aquaculture production business operators when introducing new stocks and reporting suspected outbreaks of any diseases to the Competent Authority.

- In order to ensure early detection of any possible outbreak of an aquatic animal disease, it is obligatory for the operator to notify any suspect case of disease to the Competent Authority immediately.

- Abnormal and increased mortality of any fish should be immediately reported to the Competent Authority.

- Dead fish as well as live fish showing clinical signs of disease, should be removed and disposed of under the supervision of the Competent Authority.

- The aquaculture production business operator should take into account the resources needed to control a large number of outbreaks occurring within a short period of time.

IV. Feeding stuff

- All feed and feed ingredients to be used for feeding farmed fish should meet standards as provided by the Competent Authority.

- Strict measures should be in place in order to prevent hazards from being transmitted from feeds to aquatic animals via direct or indirect means.

  Direct transmission occurs when the cultured species consumes feeds containing a pathogenic agent while indirect transmission refers to pathogens in feeds entering the aquatic environment or infecting non target species, and thereby establishing a mechanism for indirect infection of the species of commercial interest.

- Pathogens that are less host-specific present a greater risk of indirect transmission as they can establish reservoirs of infection in multiple species.

V. Prohibited pharmacological substance.

The use and traceability of any veterinary drug or other pharmacologically active substance or feed additives to be used in the farming process for prophylactic, therapeutic, diagnostic or zoo technical purpose has to be notified and approved by the Competent Authority.

VI. General hygiene provisions for sea cage farming and associated operations.

1. As far as possible, each aquaculture business operator has to ensure that its farming activity is protected against contamination, having regard to any processing that the farmed fish will subsequently undergo.

2. Aquaculture business operators are to comply with requirements laid down by the Competent Authority relating to the control of hazards in sea farming and associated operations, including:

   a) measures to control contamination arising from the air, water, feed, veterinary medicinal products, handling and disposal of waste;

   b) measures relating to animal health and welfare that have implications for human health, including programmes for the monitoring and control of zoonoses and zoonotic agents.

3. Aquaculture business operators rearing, harvesting or producing farmed fish are to take adequate measures, as appropriate:

   a) to keep any facilities used in connection with sea farming and associated operations, including facilities used to store and handle feed, clean and, where necessary after cleaning, to disinfect them in an appropriate manner.

   b) to keep clean and, where necessary after cleaning, to disinfect, in an appropriate manner, equipment, containers, crates, vehicles and vessels;

c) to use potable water, or clean water, whenever necessary to prevent contamination;

d) to ensure that staff involved in sea farming and processing are in good health and undergo training on health risks;

e) as far as possible to prevent animals and pests from causing contamination;

f) to store and handle waste and hazardous substances so as to prevent contamination;

g) to take account of the results of any relevant analyses carried out on samples taken from fish or other samples that have importance to human health;

4. Aquaculture business operators are to take appropriate remedial action when informed of problems identified during official controls performed by the Competent Authority.

VII. Recommendations for good hygiene practice

1. Guides to good hygiene practice should include appropriate information on hazards that may arise in sea farming and associated operations and actions to control hazards, including requirements laid down by the Competent Authority.

2. Examples of such hazards and measures may include:
   a) the control of contamination such as mycotoxins, heavy metals and radioactive material;
   b) the correct and appropriate use of veterinary medicinal products and feed additives and their traceability;
   c) the preparation, storage, use and traceability of feed;
   d) the proper disposal of dead fish, waste and litter;
   e) protective measures to prevent the introduction of contagious diseases transmissible to humans through food, and any obligation to notify the Competent Authority;
   f) procedures, practices and methods to ensure that food is produced, handled, packed, stored and transported under appropriate hygienic conditions, including effective cleaning and pest-control;
   g) measures relating to the cleanliness of the harvest process;
   h) measures relating to record-keeping.

VIII. Record-keeping

1. Aquaculture business operators are to keep and retain records relating to measures put in place to control hazards in an appropriate manner and for an appropriate period, commensurate with the nature and size of the aquaculture business.

   Aquaculture business operators are to make relevant information contained in these records readily available to the Competent Authority on request.

2. Aquaculture business operators should keep records relating to:
   a) All movements of animals by the aquaculture production business operators in such a way that the tracing of the place of origin and destination can be guaranteed.
   b) Mortality during transport, as practicable for the type of transport and the species transported.
   c) Any water exchanges during transport, in particular the sources of new water and site of release of water.
   d) The nature and origin of feed fed to the fish.
   e) Veterinary medicinal products or other treatments administered to the fish, dates of administration and withdrawal periods.
   f) All occurrences of diseases that may affect the safety of products of animal origin.
   g) All results of any analyses carried out on samples taken from the fish farm or other samples taken for diagnostic purposes that have importance for human health.
   h) Any relevant reports on checks carried out on fish or fishery products.

Last updated 01.08.08

Annex 3a – Application for Approval of Processing Plant

APPLICATION FOR APPROVAL

From

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To
Competent Authority

Sir,

Please carry out the assessment under Inspection Manual and requirements of the Importing countries of our establishment/factory vessel as required under the Export of Fresh, Frozen and Processed Fish and Fishery Products (Quality Control, Inspection and Monitoring) for processing of fish & fishery products for export to European Union/Non-EU countries.

We furnish below the information regarding the facilities existing in our establishment/factory vessel.

We undertake that our establishment/factory vessel meets the requirements stipulated in the Inspection Manual on Export of Fresh, Frozen and Processed Fish and Fishery Products (Quality Control, Inspection and Monitoring) and also the other requirements specified by CA from time to time.

Please find enclosed herewith a cheque/cash bearing No ..... dated ..... for ..... towards the application fee.

1. General Information

1.1. Name and address of the Establishment/Factory Vessel seeking approval

1.2. Name and Addresses of the Registered office

1.3. Name of the Chief Executive (MD/Mg. Partner/Proprietor)

1.4. Is the processing plant/Factory Vessel owned or leased by the applicant? Owned/leased?

1.5. If leased, name of the plant owner, plant name and address.

1.6. Year of Construction

1.7. Year of last major alteration

1.8. Approval requested for export to (Countries) European Union Countries other than EU

1.9. Scope of approval applied for Fresh/Chilled F & FP

Raw Frozen F & FP
(IQF/Block Frozen/ IF)/ Blanched /Cooked / Freeze dried/Any other Item

1.10. Additional activities, if any

1.11. Annual production during the previous year

(a) Fishery Products
(b) Others (specify)

1.12. Total exports during the previous year

(a) Destination
(b) Quantity in Kg
(c) FOB Value

1.13. Whether all year production or seasonal production

1.14. Number of working hours per day

1.15. Number of working days per week

2. Information on Structure of the Establishment

2.1. Numbers of pre-processing facilities/establishments

2.2. Whether pre-processing facilities integrated to the main establishment?

2.3. If separate, give address (es) and distance from the establishment.

2.4. Whether the separate pre-processing facilities are/is approved?

2.5. If not, whether application for approval has been filed?

2.6. Number of workers employed

2.7. Is it sufficient in relation to the total production capacity of the establishment?

2.8. Does the establishment have own ice plant?

2.9. If so, is it integrated?

2.10. If separate, give address (es) and distance from the establishment.

2.11. If separate, whether it is approved or application for approval has been filed? What type of ice is used? (Block, tube, etc.)

2.12. What is the total capacity of the ice plant(s) owned by the establishment? (Including flake ice making facility, if any)

2.13. Whether ice is obtained from external source?

2.14. If so, address (es) of the ice plant(s) from where ice is obtained?

2.15. Are they approved by the Competent Authority (CA)?

2.16. a. Number and capacity of the chill room(s)

b. Number and capacity of the cold/frozen storage(s)

2.17. Is the cold storage integrated to the establishment?

2.18. Is it sufficient in relation to the total production and frequency of shipments?

2.19. If not, does the establishment utilise external cold storage facility?

2.20. If so, the address (es) of such cold stores

2.21. Are such cold stores approved by the Competent Authority?

2.22 Number of vehicles the establishment has for transportation of raw material, finished products, ice and water (if applicable). Number, capacity and registration number of:

Number	Capacity	Regn. No.

(a) Refrigerated Vehicle

(b) Insulated Vehicles

(c) Non-insulated Vehicles

(d) Three wheelers

(e) Water Tanker

2.23. Does the establishment hire outside vehicles? (Give details)

3. Information about personnel

3.1. Number of technologists available in the establishment.

3.2. Name and qualification of the technologist(s) supervising the processing and related operations

3.3. Name and qualification of the technologist(s) conducting microbiological and chemical analysis

3.4. Number of supervisors

3.5. Number of male workers

3.6. Number of female workers

3.7. Number of shifts per day

4. Raw Material

4.1 Are the raw material sea caught, aquacultured or both?

(a) Source of Raw Material

(b) Particulars of the fishing vessel(s)

4.2. Specify the location of the landing centre(s)

(a) Name and address of aquaculture farm from where raw materials are received.

(b) Are the raw materials procured, transported and stored in smooth containers so designed to prevent contact with melted ice?

4.3. Mode of transportation of raw material from source to pre-processing.

4.4. Are the raw material maintained below 4 degree centigrade during procurement/ transportation and receiving at the establishment?

4.5 Whether the arrangements have been made to ensure that the aquaculture farms from where raw material are being procured, are not using banned antibiotics/chemicals and are free from industrial contaminants.

4.6. Are the raw materials being tested for bacteriological/chemicals/antibiotics contaminants at laid down frequency and the same is addressed in the HACCP manual?

4.7. Is there any arrangement for traceability of the raw material up to procurement area? (Give details)

4.8. Are the records for the above maintained properly?

5. Surroundings

5.1. Whether the premises have defined curtilage?

5.2. Are the premises clean?

5.3. Is there any area within the premises of the establishment, which is non-operative?

5.4. If so, is it cordoned off effectively?

5.5. Are there any swamps, stagnant water or dumps nearby?

5.6. Whether rubbish and offal are collected and disposed off properly?

5.7. Are the roads in the premises concreted/tarred or turfed to prevent wind blown dust?

5.8. Are there signs of any rodent harborage nearby?

5.9. Is there a documented system, including the bait map, for rodent control?

5.10. Are there any animals housed nearby?

5.11. Are the surroundings reasonably free from objectionable odours, smoke, dust and other contamination?

6. Construction and Layout

6.1. Is the building construction of permanent nature?

6.2. Is the design and layout such as to preclude contamination?

6.3. Does the layout facilitate free flow of work and avoid backtracking?

6.4. Is the facility kept in good repair?

6.5. Is there proper maintenance schedule?

6.6. Does the building provide sufficient protection against the entry and harborage of rodent, insects, birds etc?

6.7. Does the layout ensure sufficient space in different sections for machinery, equipment, personnel etc. without congestion?

6.8. Is there clear separation between processing and living areas?

7. Plant facilities

Are there adequate facilities for the following?

7.1. Storing inedible material, disinfectants and insecticides?

7.2. Whether there is separate facility for storage of wet and dry items?

7.3. Storing packaging material?

7.4. Rest Room for workers?

7.5. Changing room for male and female workers?

7.6. Vehicle washing facility?

7.7. Water treatment plant?

7.8. Alarm system to give warning in case of power failure?

7.9. Generator

7.10. Sufficient number of toilets

8. Raw Material Receiving Section

8.1. Is there a raised platform with sides and top sufficiently protected to prevent contamination while unloading the raw material?

8.2. Is the raw material receiving section sufficiently separated from processing area to prevent contamination?

8.3. Is air curtain or any other device provided at the chute to prevent the entry of flies when the door is opened?

8.4. Are fly killers provided?

9. Entry Points

9.1. Is suitable washing and sanitizing facility for feet and hands provided at all the entry points?

9.2. Is the hand washing facility located at a convenient place?

9.3. Are the washbasins provided with foot operated taps?

9.4. Are liquid soaps, disinfectants, nailbrush and single use towels/hand dryers provided in sufficient quantities?

9.5. Are wastes bins provided for collecting used towels and are foot operated?

9.6. Is hand dip facility with approved disinfectants provided near the entrance with appropriate levels of disinfectants?

9.7. Whether signboards directing to wash and sanitise the hand and foot are exhibited?

9.8. Whether fly killer are provided?

9.9. Whether air curtain are provided at all entry points?

10. Doors (All sections)

10.1. Are the doors of all sections clean and sufficiently wide, made of durable material other than wood and are kept clean?

10.2. Are the doors self-closing type and tight fitting without any gaps?

11. Windows (All sections)

11.1. Are the windows in all sections of adequate size, made of non-absorbent material other than wood and kept clean?

11.2. Does the window Sill, if any, sloped inwards?

11.3. Are the windows at least one meter above the floor and have fly proofing nets to prevent the entry of flies?

12. Floor (All sections)

12.1. Is the floor in all sections made of hard surface, impermeable, smooth and free from pits and crevices?

12.2. Is the floor cleanable and having sufficient slope?

12.3. Is the slope of floor opposite to the flow of work or side ways?

12.4. Are pallets made of non-absorbent material other than wood provided on the floor for keeping containers of ice and raw/process material?

13. Drainage (All sections)

13.1. Is drainage facility at all sections adequate?

13.2. Is open end of the drain protected against entry of rodents?

13.3. Is there facility for conveying waste water into the drains so as to maintain the floor dry?

13.4. Are the drains of adequate size, having sufficient slope and easily cleanable?

13.5. Is the slope of drain opposite to the flow of work/material?

14. Walls (All sections)

14.1. Are the floor to wall and wall-to-wall junctions properly rounded off in all sections?

14.2. Are the walls smooth, light coloured and without crevices?

14.3. Are the walls washable?

14.4. Are the switches and other installations on the wall water-proof and cleanable?

15. Washing and Cleaning

15.1. Are suitable hand washing and sanitizing facilities provided inside the processing and preprocessing halls?

15.2. Are the washbasins provided with foot operated taps?

15.3. Is all water taps having hose connection is fitted with non-return valve?

15.4. Are the water taps serially numbered?

15.5. If hoses are used as outlet for water, whether facility is provided to keep it rolled up when not in use?

16. Ceiling (All sections)

16.1. Is the ceiling at all sections in good repair and cleanable?

16.2. Do overhead rafters offer any runway for lizards, cockroaches etc.?

16.3. Are there beams, trusses, pipes or other structural elements and fittings suspended below the ceilings?

16.4. If so, whether there is protection from falling debris, dust or dripping?

17. Lights (All sections)

17.1. Is there adequate lighting?

17.2. Are the lights sufficiently protected and kept clean?

18. Ventilation (All sections)

18.1. Is there adequate ventilation/air conditioner?

18.2. Is mechanical ventilation/exhaust fan provided in areas where air stagnation, condensation of fluids etc. are present?

18.3. Is opening of ventilation/exhaust fan provided with fly proofing?

18.4. Is such fly proofing clean?

19. Utensils and Equipments

19.1. Are all receptacles, trays, tanks, vats and utensils used made of non-corrodible material and have smooth surface free from cracks and crevices?

19.2. Are they easily cleanable and disinfectable?

19.3. Is any rusted galvanized iron vessel, bamboo baskets, wire mesh containers, enameled or painted wares used for handling the product?

19.4. Are weighing scales and weights certified by the designated authority?

19.5. Is ice crusher/flake ice machine provided?

19.6. Is it maintained clean and free from rust?

20. Chill Room(s)

20.1. Are chill room(s) provided for storing raw/process material?

20.2. Is it kept clean and maintained at temperature range of 0 to 4°C

20.3. Is it provided with pallets made of non-absorbent material other than wood for keeping containers of raw material and ice?

21. Pre-processing Section

21.1. Are there signboards directing the employees to wash and sanitise hands and feet before entering the preprocessing hall and after each absence?

21.2. Is air curtain/fly killers provided to prevent the entry of flies when the door is opened?

21.3. Is the pre-processing hall has sufficient lightening and ventilation?

21.4. Is the pre-processing section well separated from other sections?

21.5. Whether water from the Tables is directly drained to the drainage?

21.6. Whether tables are provided with running water system?

21.7. Tables, Utensils and Equipment

21.7.1 Are the work table tops constructed of stainless steel or any other non-corroding, non-contaminating, non reacting and non-absorbent material (specify)?

21.7.2 Are the tables so constructed and installed that the top and under surface can be easily cleaned?

21.7.3 Are the table tops smooth, free from corrosion, pits and crevices and can be cleaned easily?

21.7.4 Are all receptacles, trays, vats and utensils used made of non-corrodible material, other than wood and have smooth surfaces free from cracks and crevices?

21.7.5 Are they easily cleanable?

22. Processing Section

22.1. Are there signboards directing the employees to wash and sanitize hands and feet before entering the processing hall and after each absence?

22.2. Is air curtain/fly killer provided to prevent the entry of flies when the door is opened?

22.3. Is the processing hall is so designed to have easy flow of work?

22.4. Is the processing hall has sufficient lighting & ventilation?

22.5. Is it having sufficient tables made of non-corrosive, non-absorbent materials?

22.6. Whether cooking, blanching, pasteurization etc. are being done in the factory?

22.7. If so, are the time/temperature controls properly validated by an approved ICU?

22.8 Flow of Work

22.8.1. Is the layout of workflow unidirectional?

22.8.2. Is there any chance of cross contamination/ backtracking?

22.8.3. Is the high risk area, if any, precluded from low risk area?

22.8.4. Are there separate workers for low risk and high risk areas, if the processing condition warrants such arrangements?

23. Water and Ice

23.1. Is there a documented water management system?

23.2. Whether plumbing diagram of the water supply system available with the outlets identified and serially numbered?

23.3. What is the source of water?

23.4. Whether potability certificate produced for each source of water as per specification?

23.5. If more than one source of water supply is used, are they tested separately?

23.6. Whether water used for processing meets the standards stipulated in EC Directive No. 98/83/EC

23.7. Whether relevant test records available?

23.8. If non-potable water is used, is there any cross connection of potable and non-potable water?

23.9. Are the water pipes of potable and non-potable water distinguished by different color codes?

23.10. Is the water used for processing chlorinated to the accepted levels? (less than ……..ppm)

23.11. What is the system of chlorination?

23.12. Whether water used for cleaning equipment, floors, etc. is of potable quality?

23.13. Is there a water treatment plant?

23.14. If so, is it adequate to provide sufficient quantity of water for processing?

23.15. If hoses are used as outlet for water whether non-return values are fitted to the taps to prevent contamination through back suction?

23.16. Is there a water storage tank and if so, whether it is protected from outside contamination?

23.17. Is there easy access to the water tank for cleaning?

23.18. What is the capacity of the water storage tank(s)?

23.19. Is the water supply sufficient in relation to the maximum daily production?

23.20. What is the frequency of cleaning & disinfestations of the water tanks?

23.21. Whether there is a documented procedure for cleaning water tank(s)?

23.22. Is water brought from external source in mobile water tankers?

23.23. If so, are the water tankers cleaned and disinfected periodically; what is the frequency?

23.24. Whether there is documented procedure for water tanker cleaning?

23.25. Is the ice used made from potable water as per norms?
(To be supported by document)

23.26. Is there adequate facility for hygienic handling and storage of ice?

23.27. If ice is obtained from different sources, are they tested separately and records maintained?

24. Salt/Chemicals/Additives

24.1. If salt is used in processing, is it tested for the presence of Staphylococci and Sulphite reducing Clostridium and records maintained thereof?

24.2. If any other additive/chemical is used in processing, is it approved by ICU/ the Competent Authority?

24.3. Are records maintained regarding the traceability and purity of additives/chemicals used in processing?

24.4. Whether fishery products are tested for heavy metals, antibiotics, pesticide residues and biotoxins and other chemicals and records maintained?

24.5. Does the HACCP Plan suitably address these requirements?

25. Freezing

25.1. Type of freezing employed

a) Tunnel freezing
b) Contact freezing
c) Any other types (Specify)

25.2. Is the freezing method employed appropriate to product requirements?

25.3. Total number of freezers and their individual capacities?

25.4. Is the freezing capacity adequate for production requirements?

25.5. Are the gauges and thermometers in working order?

25.6. Are they of required accuracy, calibrated at specified intervals and record thereof maintained?

25.7. Time taken for reducing the core temperature of the product to -18°C or below?

25.8. Is a log book maintained for freezers?

25.9. Is there a prescribed procedure/schedule for maintenance, cleaning and disinfections of freezers?

26. Packaging and Storage

26.1. Is separate area provided for packing?

26.2. Does the packing room have rodent control system?

26.3. Is the capacity of cold storage adequate?

26.4. Is cold storage provided with self-recording thermograph?

26.5. Is the thermograph calibrated at laid down frequency?

26.6. Is the sensor of the thermograph located at the warmest place away from diffuser?

26.7. Are the thermograph records maintained properly for verification?

26.8. Are the sides and floors of cold storage provided with facilities made of non-corroding and non-contaminating material for air circulation?

26.9. Is the floor of the cold storage waterproof, easy to clean and disinfect?

26.10. Is there adequate lighting with protective covers?

26.11. Is there any frost or ice formation on the walls, ceilings or stored material?

26.12. Is the store provided with alarm bell?

26.13. Whether cold storage has proper defrosting system?

26.14. Is there air curtain or blinds at the entrance of ante-room and cold storage?

26.15. Is an ante-room of suitable size provided and maintained properly?

26.16. Are the cold storage workers provided with clean protective clothing?

26.17. Does the documented rodent control system extend to cold store and ante-room also?

26.18. Is there separate and suitable room for storage of packing materials?

26.19. Is it fly, rodent and vermin proof?

26.20. Does the documented rodent control system extend to store for packing material also?

26.21. Are the walls clean and free from moisture and fungus?

26.22. Are the packing materials stored away from the walls, ceiling in such a way as to allow a person to move around for inspection?

26.23. Are the packing material stored without touching the ceiling and walls and are cover properly?

26.24. Is the packing material store provided with pallets made of non-absorbent material other than wood or any other suitable arrangement to prevent packing material being placed directly on the floor?

27. Toilet Facilities

27.1. Is the number of toilets provided in relation to the total number of workers?

27.2. Are the toilets located away from the processing area to prevent contamination?

27.3. Whether the toilet rooms have walls washable, ceiling smooth and floors constructed of impervious material, and easy to clean and sanitize?

27.4. Are the toilets well lit?

27.5. Are they provided with self-closing doors, fly-proofing and flushing arrangements?

27.6. Are hand washing and sanitizing facilities, with wash-basins, soap, single use towels, nail brushes and adequate water supply provided near the toilets?

27.7. Are the taps of the wash basin foot operable?

27.8. Is waste bin provided for collecting used towels?

27.9. Are there sign boards directing employees to clean and sanitise their hands with soap/ detergents/ disinfectants after using toilets?

28. Personal Hygiene

28.1. Has any person been made responsible for maintenance of personal hygiene of employees?

28.2. Are the workers apparently free from any form of communicable diseases, open sores and wounds or any other sources of contamination?

28.3. Are the workers medically examined periodically and whether individual health cards showing that the individual is fit to work in fish processing plant maintained?

28.4. Are prophylactic injections being administered to the plant employees and records thereof included in the individual cards?

28.5. Has it been made obligatory for all employees to notify incidents of typhoid, dysentery, diarrhea or any other communicable diseases in their homes?

28.6. Are workers medically examined after each absence due to illness from any contagious disease?

28.7. Are the workers provided with sufficient sets of clean work dress and headgears?

29. Cleaning and Disinfection of plant, equipment and utensils

29.1. Is there a documented procedure for cleaning and disinfections of plant, equipment and utensils?

29.2. Is the cleaning schedule exhibited prominently?

29.3. Is there an area earmarked for cleaning and disinfection of utensils and equipment?

29.4. Are facilities of cold/hot water/steam under pressure, wherever appropriate, provided for cleaning and disinfection?

29.5. Is any person made responsible for supervising this work?

29.6. Is the effectiveness of cleaning verified periodically through laboratory tests?

30. Changing Room

30.1. Are separate changing rooms of adequate size proportionate to the number of workers provided for male and female workers?

30.2. Whether changing room is integrated into the plant layout properly?

30.3. Does the changing room have smooth walls, floors and wash basins with soaps, disposable towels, nail brushes and non hand operable taps?

30.4. Whether there is arrangement for:

a. Change of footwear
b. Keeping street clothes separately
c. Lockable cupboards
d. Collection of soiled working clothes
e. Gumboots
f. Headgear and wherever necessary gloves/mouth cover

30.5. Is there suitable in-house arrangement to launder the working clothes of the workers?

30.6. Is the changing room provided with flush lavatories? Is it kept clean and sanitised?

30.7. Does the door of the lavatory open directly to processing area?

31. Effluent Treatment

31.1. Is the establishment having an efficient effluent treatment system?

31.2. Does it comply with the statutory requirements?

31.3. Does the effluent cause any problem to neighbourhood?

32. Maintenance Schedule

32.1. Whether there is a documented maintenance procedure for different sections/ equipment/ machinery, laboratory items etc.

32.2. Whether maintenance records are kept?

32.3. Whether all the equipment are marked with identification number?

33. HACCP

33.1. Has the own check system based on HACCP implemented?

33.2. If so, has the HACCP manual been submitted to the Competent Authority for approval?

33.3. Whether all the SSOPs are included in the HACCP manual?

33.4. Whether process flow charts with products description and manufacturing details are given in the HACCP manual?

33.5. Whether Plumbing diagram of water showing serially numbered taps is given in the HACCP manual?

33.6. Whether persons responsible have been identified?

33.7. Whether records are maintained for this purpose?

33.8. Whether the frequency of monitoring of critical limits at CCP is adequate as evidenced by the actual observation?

33.9. Whether breakdowns and malfunctions are recorded?

33.10. Whether there is a provision to review and revise procedure and frequency?

34. Rodent/Vermin Control

34.1. Is there any documented procedure for vermin control?

34.2. Whether responsibility has been fixed for this work?

34.3. Whether vermin/rodent control carried out by own arrangement or through outside ICU?

34.4. Whether bait map showing serially numbered bait stations has been provided?

34.5. Whether chemical/ rodenticides are approved by the Competent Authority?

35. Transportation

35.1. Is the establishment having adequate facilities for transport of raw material and finished products?

35.2. If non-insulated covered vehicles are used for transport of raw material for short distances, whether insulated boxes are provided?

35.3. Are the vehicles insulated /refrigerated?

35.4. Are they constructed in such a way to facilitate easy cleaning and sanitization?

35.5. Is there separate arrangement for cleaning and sanitization of transport vehicles?

35.6. Are the records of the above maintained?

35.7. Whether such arrangement creates environmental problems?

35.8. Are the vehicles cleaned and disinfected periodically?

35.9. Whether there is a documented procedure for cleaning the vehicles?

36. Inspection and Testing

36.1. Is the establishment having in-house facilities for inspection and testing?

36.2. Is the establishment having separate qualified and competent personnel for conducting physical, chemical and microbiological tests?

36.3. Are there separate technologists for supervision of processing and for conducting laboratory tests?

37. Any other relevant information

Yours faithfully,

Signature :

Name :
Designation :
Company Seal :

Place :
Date :

Check list of enclosures

(1) Demand Draft for ……..

(2) Up-to-date layout plan of establishment/factory vessel

(3) Plumbing diagram

(4) Organizational Chart of the establishment

(5) A Copy of the legal identity of establishment/factory vessel

(6) A copy of Lease Deed, if applicable

(8) A copy of test results for water and Ice (As per the Directive No.98/83/EC) for EU establishment except radiological parameters for Non-EU establishment.

(9) HACCP Plan

(10) A copy of Registration Certificate of pre-processing establishment/processing plant/storage etc.

(11) A copy of the order allotting Importer-Exporter Code Number.

(12) A copy of the PER certificate issued by the Ministry of Environment.

(13) Guarantee and undertakings.

Annex 3b – Application for Approval of Processing Plant

Undertaking

(*To be submitted in duplicate on company's letterhead along with application for approval of processing establishments/factory vessels)*

Ref. No. : Date:

To

The CA- ----------,
(*address)*

Sub: **Application for approval**

Sir,

With reference to our application Ref. No. --------- dated ----------, we hereby undertake the following in respect of the processing of fishery products in our establishment/factory vessel.

We handle, process, store and transport fishery products under proper hygienic conditions so as to meet the health requirements laid down by the Government of Mauritius/Importing Countries.

HACCP system has been established and implemented by us.

We do not use hyper chlorinated water or ice with level of free residual chlorine above …….ppm to wash, dip or spray the fishery products and carry out checks on water and ice in line with EC recommendations (98/83/EC) / or as per ……..in case of non-EU.

Level of additives, where applicable, is monitored in accordance with EC Directive 95/2/EC and then amendments/or as per the requirements of the importing country.

Yours faithfully,

Signature of Authorised Signatory

Name:

Designation:

Date:

Place:

Strike whichever is not applicable.

Annex 3c – Application for Approval of Processing Plant

Guarantee

(*To be submitted in duplicate on company's letterhead along with application for approval of processing establishments/factory vessels to the concerned CA)*

Ref. No. Date:

To

CA - ----------,
(*address)*

Sub: Guarantee

Sir,

We hereby guarantee the following:

HACCP system has been established and implemented by us.

No hyper chlorinated water or ice (with a level of free residual chlorine above …… ppm) is used to wash, dip or spray the fishery products being processed in the establishment.

Checks on water and ice are being carried out in line with EC recommendations (98/83/EC)/or as per IS 4251 (in case of non EU) and the results of regular examinations are analyzed for corrective action.

We will not obtain Health Certificates for our export consignments from authorities other than CA - ---------.

We will not use raw materials, semi-processed or processed products coming from an unapproved establishment.

Level of additives, where applicable, is monitored in accordance with EC Directive 95/2/EC and amendments as per the requirements of the importing country.

We shall provide to the Competent Authority and its representatives free access, at all times, to all parts of the establishment/factory vessel and to the records pertaining to production/quality of products being processed by us.

If the results of checks carried out by us or any information at the disposal of our personnel reveal the risk of health or suggest that such a risk might exist, we shall inform you immediately and take corrective actions under your official supervision.

We shall not carry out activities other than those for which we have been specifically approved without prior approval by you.

We will not store the fishery products of the other establishments in our premises without prior permission from the concerned CA.

We will not misuse the CFEs issued to us and will maintain proper records of the same.

We are aware that approval granted to our establishment/factory vessel for processing of fishery products may be withdrawn by you in case any of the above guarantees are violated by us.

Signature of the Head of Production

Place:

Date:

Counter signature of Chief Executive Officer of the approved establishment/factory vessel

Place:

Date:

Annex 4 – List of Prohibited Pharmaceutical in Fish Farming

Substances having anabolic effect and unauthorized substances:

(1) Stilbenes, stilbene derivatives, and their salts and esters
(2) Antithyroid agents
(3) Steroids
(4) Resorcylic acid lactones including zeranol
(5) Beta-agonists
(6) Compounds included in Annex IV to Council Regulation (EEC) No 2377/90 of 26 June 1990:
    Aristolochia spp. and preparations thereof
    Chloramphenicol
    Chloroform
    Chlorpromazine
    Colchicine
    Dapsone
    Dimetridazole
    Metronidazole
    Nitrofurans (including furazolidone)
    Ronidazole

Annex 5 – General Principles and Requirements for Feeding Stuffs in Aquaculture

- Feeding stuffs to be used in aquaculture should satisfy the following criteria:

    1. They should not contain undesirable substances (lead, mercury, cadmium, nitrite, etc…) in excessive amount (as per local regulations), which could have an adverse effect on fish health, and subsequently consumers of aquaculture produce.

    2. They should not contain any pharmacologically active substances, veterinary medicinal products and feed additives that are prohibited from use in aquaculture.

    3. No feed additives shall be used in aquaculture without the prior approval of the Competent Authority.

    4. They should be free from pesticide residues.

- The presence of any undesirable substance such as prohibited pharmacologically active substances, veterinary medicinal products, prohibited additives and any other biological contaminant (salmonella, etc...) shall be immediately notified to the Competent Authority.

- All local feed business operators, which supply feeds to be used in aquaculture, should be registered with the Competent Authority.

- In order to be registered, feed business operators should meet several conditions relevant to their operations - facilities, equipment, personnel, production, quality control, storage and documentation - in order to ensure both feed safety and product traceability.

- When feeding aquatic animals, aquatic business operators shall take necessary measures to minimize the risk of biological, chemical and physical contamination of feed.

- Feeding stuffs should originate from establishments (local) which have put in place, implement and maintain, a feed quality management system based on HACCP principles and Codex requirements on good animal feeding.

- Importation of feeding stuffs should be accompanied by a health certificate which fulfils the requirements of the Competent Authority.

Annex 6 - Health Certificate for the import of brood stock in Mauritius

REPUBLIC OF MAURITIUS

MINISTRY OF AGRO INDUSTRY, FOOD PRODUCTION AND SECURITY

COMPETENT AUTHORITY

SEAFOOD HUB, One Stop Shop, 4TH FLOOR, TRADE & MARKETING CENTRE, MER ROUGE

Telephone: 206 2800

Fax: 216 2293

1. Exporting country and authorities involved
1.1. Exporting country:.....
1.2. Competent authority:.....

2. Place of origin of the consignment
2.1. Code of territory of origin:.....
2.2. Farm of origin, name:..... .....
2.3. Address or location of farm:.....
....
....
....
....
2.4. Name, address and phone number of the Consignor:
....
....
....
....

3. Destination of the consignment
3.1. Farm, name:..... .....
3.2. Address:..... .....
3.3. Name, address and phone number of the Consignee:
....
....
....
....

4. Means of transport and consignment identification
4.1. Means of transport: .....
4.2 Registration number(s) - Ship name Flight number/Airway Bill:.....
4.3. Consignment identification details: ....

5. Description of the consignment □Farmed stocks □ Wild stocks □Live fish □ Gametes □Fertilised eggs □ Unfertilised eggs □ Larvae/fry				
Fish specie(s)		Total weight of fish (kg) (Number of fish)	(Volume of eggs) (Volume of gametes)	Age of live fish
Scientific name:	Common name:			
				□ >24 months □ 12-24 months □ 0-11 months □ unknown

6. Animal health attestation for importation of live fish and eggs and gametes for farming live fish of aquaculture origin intended for human consumption for farming or restocking of put and take fisheries.

I, the undersigned official inspector, hereby certify that the live fish and eggs and gametes, referred to at point 5 of this certificate fulfil the following requirements:

6.1. either

They originate from the territory with the code:…….. and in which all farms rearing or keeping live fish, their eggs or gametes, of any species considered as susceptible to the following diseases: Red Sea Bream Iridoviral disease (RSIVD), infectious salmon anaemia (ISA); epizootic haematopoietic necrosis (EHN); viral haemorrhagic septicaemia (VHS); and infectious haematopoietic necrosis (IHN);

- are officially registered by the competent authority,
- keep an updated record of live fish, eggs and gametes entering and leaving the farm and all information relating to their delivery and dispatch, their number or weight, their size, their source, their suppliers and observed mortality
- have to notify as soon as possible to the competent authority, any suspicion of the following diseases: RSIVD, ISA, EHN, VHS and IHN; and any clinical signs giving reason to suspect the presence of a disease capable of causing significant impact to the fish stock,
- are subject to appropriate disease control measures as laid down by OIE International Aquatic Animal Health code (latest edition), including prohibition as regards vaccination against ISA and as regards sampling and testing, the methods as laid down in the relevant chapters of the OIE annual of Diagnostic Tests for aquatic Animals (latest edition)
- have had no disease, that has caused significant impact to the stock during the last six months prior to dispatch, and during the last two years, no cases of the diseases: RSIVD, ISA, and EHN
- have, during the last two years prior to dispatch not introduced live fish, eggs or gametes with a lower health status,
- there are, on the day of loading, no clinical signs of disease and there is no suspicion of the presence of any of the following diseases: RSIVD, ISA, EHN, VHS and IHN)

Or

They originate from the territory with the code:……. and which:

- is a designated farm, or a farm that is not connected with a watercourse, or coastal or estuarial waters, and that does not contain fish of the species considered as susceptible to the diseases; Red Sea Bream Iridoviral disease (RSIVD), infectious salmon anaemia (ISA); epizootic haematopoietic

necrosis (EHN); viral haemorrhagic septicaemia (VHS); and infectious haematopoietic necrosis (IHN),

– keep an updated record of live fish, eggs, and gametes entering and leaving the farm and all information relating to their delivery and dispatch, their number or weight, their size, their source, their suppliers and observed mortality, and observed mortality.

Or

They originate from the territory with the code:……. and which:

– there are no farms rearing or keeping live fish, their eggs or gametes, of any species considered as susceptible to the following diseases: Red Sea Bream Iridoviral disease (RSIVD), infectious salmon anaemia (ISA); epizootic haematopoietic necrosis (EHN); viral haemorrhagic septicaemia (VHS); and infectious haematopoietic necrosis (IHN), and such species are not present in the natural waters,
– There has been no disease that has caused significant impact on the stock during the last six months prior to dispatch

6.2 They:

– have not, since the time of collection, been in contact with live fish, eggs or gametes of a lower health status than referred to in point 6.1 of this certificate,
– are not intended for destruction or slaughter for the eradication of the following diseases: RSIVD**,** ISA; VHS; IHN; EHN; spring viraemia of carp (SVC); Infectious pancreatic necrosis (IPN); Bacterial kidney disease (BKD, Renibacterium salmoninarum); Furunculosis (Aeromonas salmonicida); Enteric redmouth disease (ERM, Yersinia ruckeri); Gyrodactylus salaries, or due to diseases caused by any other pathogen,
– are not subject to any prohibitions for animal health reasons,
– were inspected on the day of loading and showed no clinical signs of disease,
– were subject to a visual check of a randomly selected representative part of the consignment, including each part having a different origin, and no fish species other than those specified in point 5 of this certificate were detected, and
– have been disinfected in accordance with OIE International Aquatic Animal Health Code, most recent edition

7. Specific animal health requirements as regards RSIVD, VHS, IHN, SVC and Gyrodactylus salaris

7.1. I, the undersigned official inspector, hereby certify that the live fish and eggs and gametes, referred to at point 5 of this certificate, originate from a territory that, in addition to the guarantees given in point 6 of this certificate, is approved by the competent authority as having an equivalent health status to those farms and zones, with approved status as regards RSIVD, VHS and IHN, as they originate from:

Either

– (either) a coastal zone in which all farms are under the supervision of the competent authority, and the fish

  Or originate from a continental zone in which all farms are under the supervision of the competent authority, and the fish

  Or originate from a farm which is under the supervision of the competent authority, and where the water is supplied by means of a system which ensures the complete inactivation of RSIVD, VHS and HIN, that is under the supervision of the competent authority, and the fish

Or originate from a coastal zone in which there are no farms and the wild fish are:

Or originate from a continental zone in which there are no farms and the wild fish are:

– subject to health inspections, carried out at intervals adapted to the development of RSIVD, VHS and IHN and samples are taken and examined for these pathogens with a negative result by an officially authorized laboratory.
– since at least two years free of clinical and other signs of RSIVD ,VHS and IHN, and
– originate from a territory where all necessary measures are taken to prevent the introduction of diseases

Or

– originate from a farm that is not connected with a watercourse, coastal or estuarial waters and does not contain any fish of the species considered as susceptible to RSIVD , VHS and IHN .

Or

– originate from a farm that is connected with a watercourse, coastal or estuarial waters but where the competent authority has recognised that neither the farm, nor the watercourse, coastal or estuarial waters contain any fish of the species considered as susceptible to RSIVD , VHS and IHN.

7.2. I, the undersigned official inspector, hereby certify that the live fish and eggs and gametes, referred to at point 5 of this certificate which is considered susceptible to spring viraemia of carp, infectious pancreatic necrosis and bacterial kidney disease, originate from a territory

– Where SVC, IPN, BKD is notifiable to the competent authority, and the reports of suspicion of infections must be immediately investigated by the official services.
– In which all introduction of species susceptible to SVC, IPN, BKD has come from a zone or farm having health status with respect to SVC, IPN, BKD.
– In which the fish has not been vaccinated against SVC, IPN, BKD
– Where all the farms raising species susceptible to SVC, IPN, BKD are under the supervision of the competent authority
– Where all measures are taken to prevent the introduction of diseases
– That , in addition given in point 6 of this certificate, is approved by the Competent authority as having an equivalent health status to zones within the Community, having additional guarantees with regards to SVC, IPN, BKD

either originate from the following territory:....., which is considered free from SVC, IPN, BKD.

Or originate from the following farm:..... at the time of the year SVC and IPN and BKD is expected to manifest itself have been submitted for at least two years to inspections by the Competent Authorities with sampling at least equivalent to those sampling programmes **laid down by Decision 2001/183/EC** or surveillance methods as described in the OIE Manual of diagnostic tests for aquatic animals, Chapter 1.1.4 and the relevant disease chapters and as laboratory tests have been carried out in accordance with the relevant chapters in the most current edition of the OIE Manual of diagnostic tests for aquatic animals, with all tests giving negative results.

Or originate from the following continental farm:.....where SVC, IPN, BKD have occurred within in the previous two years but where the whole fish population has been withdrawn and all ponds, tanks or other installations and equipment disinfected under the supervision of the competent authority and where restocking has taken place with fish from a

source certified free by the Competent Authority after sampling at least equivalent to those sampling programmes as laid down in OIE International Aquatic Animal Health Code, most recent edition or surveillance methods as described in the OIE Manual of diagnostic tests for aquatic animals, Chapter 1.1.4 and the relevant disease chapters and as laboratory tests have been carried out in accordance with the relevant chapters in the most current edition of the OIE Manual of Diagnostic Tests for Aquatic Animals, with all tests giving negative results.

7.3 I, the undersigned official inspector, hereby certify that the live fish and eggs and gametes referred to at point 5 of this certificate, which is considered susceptible to Gyrodactylus salaris, originate from a territory.

- where G. salaris is notifiable to the Competent Authority and reports of suspicion of infections must be immediately investigated by the official services
- in which all introduction of species susceptible to G. salaris has come from a zone or farm declared free from G. salaris,
- where all farms raising species susceptible to G. salaris are under the supervision of the Competent Authority,
- where all necessary measures are taken to prevent the introduction of diseases,
- that, in addition to the guarantees given in point 6 of this certificate, is approved by the Competent Authority as having an equivalent health status to those zones within the Community, having additional guarantees with regard to Gyrodactylus salaris, as they:

either

Originate from the following territory ……. which is considered free from Gyrodactylus salaris in accordance with OIE International Aquatic Animal Health Code, most recent edition

OR

Originate from the following continental farm …… which a the time of the year Gyrodactylus salaris is expected to manifest itself, has been submitted for at least two years to inspections by the Competent Authorities with sample size at least equivalent to those sampling programmes as laid down in OIE International Aquatic Animal Health Code, most recent edition and sampling and laboratory tests have been carried out in accordance with the relevant chapters in the most current edition of the OIE Manual of diagnostic tests for aquatic animals with all tests giving negative results and the farm is either situated in a water catchment area declared free from G. salaris and all other water catchment areas draining into the same estuary are declared free from G. salaris ,

OR

Originate from the following coastal farm: ……. which is situated in an coastal zone with a salinity below 25 parts per thousand and where all water catchment areas draining into the estuary are declared free of G. salaris and

OR

Originate from the following coastal farm:……. which is situated in a coastal zone where the seawater has a salinity of more than 25 parts per thousand and no live fish of the susceptible species have been introduced during the previous 14 days and

OR

Originate from the following farm: …… where the eggs have been disinfected according to the OIE International Aquatic Animal Health code(latest edition) ensuring the elimination G. salaris.

8. Transport requirements

Furthermore, they:

– are placed under conditions that do not alter their health status, and

– have been placed in sealed watertight containers or boxes suitable for the purpose, which are new or have been cleaned and disinfected beforehand using an authorised disinfectant and which bear on the exterior a legible label a well boat where the well and its pipe and pump systems were free of fish, cleaned and disinfected using an authorised disinfectant, and inspected before loading, carrying a manifest with the relevant information referred to in point 1, 2 and 3 of this certificate and with the following statement:

Either

Live fish and Eggs and Gametes intended for farming in Mauritius with additional guarantees with regard to: viral haemorrhagic septicaemia (VHS), infectious haematopoietic necrosis (IHN), spring viraemia of carp (SVC), infectious pancreatic necrosis (IPN), bacterial kidney disease (BKD) and Gyrodactylus salaris

Or

Live fish of aquaculture origin certified for restocking of put-and take fisheries human consumption in Mauritius with additional guarantees or protective measures with regard to: viral haemorrhagic septicaemia (VHS), infectious haematopoietic necrosis (IHN), spring viraemia of carp (SVC), infectious pancreatic necrosis (IPN), bacterial kidney disease (BKD) and Gyrodactylus salaris

Or

Live fish and Eggs and Gametes certified for farming in Mauritius with additional guarantees or protective measures with regard to: viral haemorrhagic septicaemia (VHS) and infectious haematopoietic necrosis (IHN) and spring viraemia of carp and infectious panocreatic necrosis and bacterial kidney disease and Gyrodactylus salaris.

Or

Live fish of aquaculture origin intended for restocking of put-and take fisheries human consumption in Mauritius with additional guarantees or protective measures with regard to: viral haemorrhagic septicaemia (VHS), and infectious haematopoietic necrosis (IHN), and spring viraemia of carp and infectious pancreatic necrosis and bacterial kidney disease and Gyrodactylus salaris

Or

Live fish of aquaculture origin intended for further processing in approved import centre before human consumption.

Done at....., on.....
(Place) (Date)

Official stamp ....
(Signature of official inspector)

.....

(Name in capital letter, qualifications and title)

Disease	**Susceptible host species (*)**
ISA	Atlantic salmon (Salmon salar), rainbow trout (Oncorhynchus mykiss) brown trout (saimo truita)
EHN	Redline perch (Perca fluviatifs), rainbow trout (Oncorhynchus mykiss), Macquarie petch (Macquaria australasica), silver perch (Bidyanus bidyanus), mountain galaxlas, (Galaxlas olidus), sheatfish (Siturus glanish), catfish (ictalurus melas), and mosquito fish (Gambusa affinis and other species belonging to the family Poecilictae
VHS	Fish belonging to the family Salmonidae, grayling (Thymallus thymallus), white fish (Coregonus spp.), pike (Esox inclus), turbot (Scophthaimus maximus), herring and sprat (Clupea spp.), Pacific salmon (oncorhynchus spp.), Atlantic cod (Gadus morhua), Pacific cod (G.macrocephalus), haddock (G. aeglefinus) and rocking (onos mustelus)
IHN	Fish belonging to the family Salmondae, plke (Esox luclus)
SVC	Common carp and kol carp (Cyprinus carpib), grass carp (Cienpharyngodan idellis), silver carp (Hypophthalmichthys molitrix), bighead carp (Aristichthys nobilis), crudan carp (Casassius carassius) goldfish (Carassius auratus), tench (Tinca tinca) and sheatfish (Silurus glanis)
IPN	Rainbow trout ((Oncorhynchus mykiss), brook trout (Salveniius fontinalls) brown trout (salmo trutta), Atlantic salmon (Salmo Salari) and several Pacific salmon species ((Oncorhynchus spp.)
BKD	Fish belonging to the family Salmonidae
Gyrodactylus salaries	Atlantic salmon (Salmon salar), rainbow trout (Oncorhynchus mykiss), Arctic char (Salvelinus alpinus), North American brook trout (S. fontinalis), grayling (Thymallus thymallus), North American lake trout (Salvelinus namycrush(and brown trout (Salmon trutta), other species of fish on sites where any of the above species are present shall also be considered as susceptible species
(*) And any other species referred to in the most recent edition of the OIE International Aquatic Animal Health Code and/or the OIE manual of diagnostic tests for aquatic animals as being susceptible for the pathogen/disease in question.	

Annex 7 – Procedures for quarantine facilities

REPUBLIC OF MAURITIUS

MINISTRY OF AGRO INDUSTRY, FOOD PRODUCTION AND SECURITY

COMPETENT AUTHORITY

SEAFOOD HUB, One Stop Shop, 4TH FLOOR, TRADE & MARKETING CENTRE, MER ROUGE

Telephone: 206 2800

Fax: 216 2293

- Quarantine facilities should meet minimum standards regarding location, design, infrastructure and equipment, physical security, treatment of intake and discharge waters, staff expertise and training and operating protocols, to ensure their effective operation and that aquatic animals and any pathogens they may carry will not escape into the surrounding environment.

- All effluent and wastes generated by a Quarantine Facility should be treated in a manner that effectively destroys all pathogens.

- All wastewater to be discharged from the Quarantine Facility should be appropriately sterilized. Sterilized wastewater should not be discharged directly into natural waterways. Disposal of wastewater should also conform to the Environment Protection Act and Central Water Authority Act.

- Wastewater should be sterilized in accordance with one of the following methods:

    - Chlorination
    - Heat treatment
    - Ultraviolet (UV) light radiation

- Should a serious disease or pathogen be encountered in aquatic animals held in quarantine, the Competent Authority should be immediately notified, the entire stock should be destroyed and the facility appropriately disinfected under the supervision of the Competent Authority.

- The Quarantine Facility should be constructed and operated in a manner that will assure a high level of security, guaranteeing the isolation of the imported aquatic animals, such that the animals, any pathogens they may carry and any pests or other living organisms contained in their transport waters will not be released from the facility.

- The possible entry of pathogens of domestic origin that might infect the stock held under quarantine, thorough contaminated influent water, or their entry along with personnel, feeds and fomites must also be prevented.

- Period of quarantine will be determined by the Competent Authority on a case-to-case basis depending on the risk involved in the importation of the species of aquatic animals.

- The Quarantine Facility should be located within a single operational entity that is structurally separated from all other operations and is dedicated solely to the holding of the shipment.

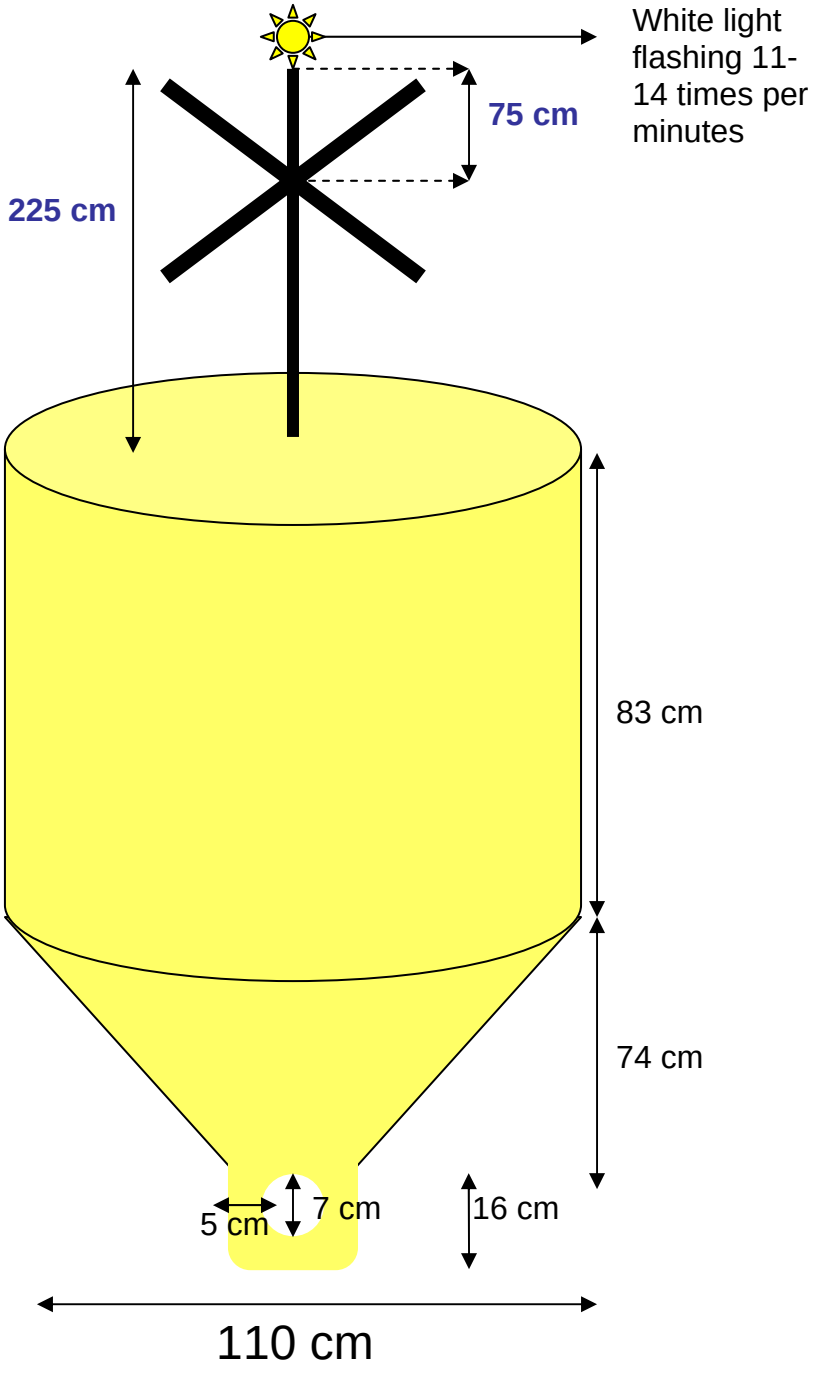
- The Quarantine Facility should not share a building having areas that are used for different purposes and should not serve as an access way to other buildings or activities.

- The Quarantine Facility should not to be used for any purpose, what-so-ever, other than as a place for the performance of quarantine.

- Dead aquatic animals should only be disposed of as directed by the Competent Authority.

- The operator should ensure that no aquatic animals leave the quarantine area under any circumstances without the approval of the Competent Authority (i.e. the granting of biosecurity clearance).

Annex 8 – Buoys to be used to demarcate the sea area Concession



Annex 9 – Guidelines for Coastal Water Quality

Extract from Government Notice No. 620 of 1999 (16 April 1999): Class C - Fisheries

The following guidelines are hereunder published for the information of the public with regards to coastal water quality requirements for various activities around the Republic of Mauritius.

Definitions

Classification *Principal Beneficial uses/objectives*

Category C – Fisheries

Class C1 – Aquaculture C1 – Propagation of marine life such as fish, crabs, shrimps, and other marine fauna.
Is intended for the production of fish, crabs, shrimps, etc.

Class C2 – Shellfish C2 – Culture of shellfish – oysters, mussels, clams.
Is for the culture of shellfish where the requirements for pathogenic organisms are very stringent.

Coastal water quality requirements for Category C:

CATEGORY		**C: Fisheries**	
Class		**C1 Aquaculture**	**C2 Shellfish**
Parameters	Unit		
pH	-	7.0-8.5	7.0-8.5
Temperature	^{0}C	ambient	ambient
Suspended Solids	mg/l	15	15
Dissolved Oxygen	mg/l	>5	>5
Chemical Oxygen Demand[1]	mg/l	5	5
Total Coliforms	CFU[3]/100 ml	1000	70[2]
Faecal Coliforms	CFU/100 ml	200	14[2]
Nitrate-Nitrogen	mg/l	0.8	0.8
Phosphate	mg/l	0.08	0.08
Oil & Grease	mg/l	Not detectable by N-hexane extraction method	
Phenol	mg/l	0.05	
Arsenic	mg/l	0.05	
Cadmium	mg/l	0.02	
Cyanide	mg/l	0.01	
Chromium	mg/l	0.05	
Copper	mg/l	0.05	
Lead	mg/l	0.05	
Total Mercury	mg/l	0.0005	

1 by alkaline potassium permanganate method
2 organisms per 100 ml by MPN method
3 CFU: Colony Forming Unit