



**BUREAU
VERITAS**

RULES FOR CLASSIFICATION AND CERTIFICATION OF FISHFARMS

Ref. NR 387 DTO R00 E

Tentative issue - January 1994

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MARINE BRANCH GENERAL CONDITIONS

ARTICLE 1

1.1. BUREAU VERITAS is a Society, the purpose of whose Marine Branch is the classification of vessels, sea and river units, offshore structures and craft of all kinds, collectively hereinafter referred to as "ships".

The Society :

- sets forth and develops Rules, Guidance Notes and other documents;
- publishes Registers;
- issues Certificates, Attestations and Reports following its interventions.

1.2. BUREAU VERITAS also participates in the application of National or International Regulations or Standards, in particular, by delegation from different Governments.

1.3. BUREAU VERITAS can also carry out Technical Assistance missions and provide special services exceeding the scope of classification, to which Particular Conditions will then apply.

1.4. BUREAU VERITAS is neither, and may not be considered as, an Underwriter, Consulting Engineer, Naval Architect, Shipbuilder or a Shipowner, and cannot assume the obligations incumbent on such functions, even though its experience enables it to answer enquiries concerning matters not covered by its Rules, Guidance Notes or other documents.

ARTICLE 2

2.1. Classification is the expression of confidence given by the Society to a ship, for a particular use or service and for a certain period of time, by reference to its Rules, Guidance Notes and other documents: this opinion expresses only the strict personal view of the Society. It is represented by a class published in the Register.

2.2. The documents issued pursuant to surveys carried out by the Society's surveyors according to the methods and modalities mentioned in Articles 3 and 4 reflect the condition of the ship at the time of the survey. It is the Owner's or his Agent's responsibility to maintain that condition until the next survey required by the Rules.

ARTICLE 3

BUREAU VERITAS

- appraises specifications and drawings for the construction of ships by reference to its Rules,
- inspects materials, machinery, equipment, fittings and other items used in the construction of ships, by reference to its Rules,
- surveys the construction of ships to ensure that they are built in accordance with approved drawings and the Society's published Rules,
- classes ships in accordance with its Rules and publishes the ship's names in its Register,
- carries out periodic surveys of ships in service in order to ensure that the requirements for the specified class are met. It is the owner's duty to report to the Society any incident or event affecting the condition of the ship or the need for repairs, whatever their nature or extent.

ARTICLE 4

4.1. The Rules, Guidance Notes and other documents published by the Society endeavour to meet the state of the art and technology at the time they are published.

Committees, consisting of personalities from the International Maritime Industry, contribute to the development of these documents.

The Society is not responsible for any inadequacy or failure of such Rules, Guidance Notes or other documents as a result of future development of techniques which could not reasonably have been foreseen at the time of their publications.

4.2. BUREAU VERITAS is sole qualified to decide upon the meaning, the interpretation and application of the documents mentioned above. Any reference to them is of no value if it does not involve, accompany or follow a Society's intervention.

4.3. The Society exercises due care and skill and acts in a professional and workmanlike manner :

- in the selection of its surveyors,
- in the performance of its services, considering the state of the art and technology in existence at the time the services are being performed.

4.4. Surveys conducted by the Society include, but are not limited to, visual inspections, non-destructive testing, laboratory testing and underwater inspection by divers. Survey practice and procedures are selected by the Society in its sole and absolute discretion based on its experience and knowledge and according to generally accepted professional standards in the Industry.

ARTICLE 5

5.1. No report, statement, notation of a plan, review, certificate of class or any document or information issued or given as part of the services provided by the Society shall be given any legal effect of implication other than a representation that the ship, structure, item of material, equipment or machinery or any other item covered by such document or information has met one or more of the Society's Rules. Any such representation is issued solely for the use of the Society, its committees and clients or other duly authorized entities and for no other purpose.

5.2. The classing of a ship, or the issuance of certificate with relation to, or in furtherance of the classification of a ship or the performance of services by the Society, it is not a representation, statement or warranty of seaworthiness, structural integrity, quality or fitness for a particular purpose or service of any ship, structure, material, equipment or machinery surveyed by the Society, beyond any representation set forth in the Rules of the Society.

5.3. Nothing contained herein, or in any information, report, certificate or like document issued in connection with or pursuant to the performance by the Society of its services, shall be deemed to relieve any designer, naval architect or engineer, builder, manufacturer, shipyard, seller, supplier, contractor or subcontractor, repairer, or owner, operator or other entity from any warranty or other contractual obligations express or implied or from any fault whatsoever, nor to create any right, claim or benefit in any third party.

In particular, the Society does not declare the acceptance or commissioning of a ship, that being the exclusive responsibility of the owner.

The validity, application, meaning and interpretation of a Classification Certificate or any similar document or information issued by the Society in connection with, or in furtherance of the performance of its services, is governed by Rules of the Society which shall be the sole judge thereon, in its absolute discretion.

ARTICLE 6

6.1. In providing services, information or advice, neither the Society nor any of its servants or agents warrants the accuracy of any information or advice supplied. Furthermore, all express and implied warranties are specifically disclaimed. Except as set out herein, and also in the case of the surveys mentioned in Article 1.2, neither the Society, nor any of its servants or agents, shall be liable for any loss, damage or expense of whatever nature sustained by any person, in tort or in contract, due to any act or omission or error of whatever nature, whether or not negligent, and howsoever caused in any information or advice given in any way whatsoever by or on behalf of the Society.

6.2. Nevertheless, if any person uses the Society's services, and suffers loss, damage or expense thereby, which is proved to have been due to any negligent act, omission or error of the Society, its servants or agents, or any negligent inaccuracy in information or advice given by or on behalf of the Society, then the Society will pay compensation to such person for his proved loss, up to, but not exceeding, five times the amount of the fee - if any - charged by the Society for the particular service, information or advice and, if no fee is charged, FRF 50,000.

Where the fees are related to a number of services, the amount of fees shall be apportioned for the purpose of the calculation of the maximum compensation, by reference to the estimated time involved in the performance of each service.

Any liability for consequential damages is specifically excluded.

In any case, whatever the amount of the fees, the maximum damages payable by the Society shall be not more than FRF 5,000,000.

6.3. Any claim for damages of whatever nature by virtue of the provisions set forth herein must be made in writing, and notice must be provided to the Society within six months of the date the services were first supplied or the damages first discovered. Failure to provide such notice within the time set forth herein will constitute an absolute bar to the pursuit of such claim against the Society.

ARTICLE 7

Requests for interventions shall, in principle, be submitted in writing. They entail the acceptance without reservation, of the present General Conditions and of Particular Conditions which may be attached thereto.

ARTICLE 8

8.1. Any intervention of BUREAU VERITAS, whatever its nature, whether completed or interrupted for any whatsoever, shall involve the payment of fees upon receipt of the invoice and the reimbursement of the expenses incurred. Interests may be demanded in case of late payment.

8.2. The class of a ship may be withheld or, if granted, suspended or withdrawn, in the event of non-payment of fees.

ARTICLE 9

9.1. All plans, drawings, specifications and information provided to the Society, or of which the Society may become reasonably aware in connection with the performance of its services, shall be treated as confidential by the Society and shall not, without the prior consent of the party furnishing such document, be used for any purpose other than that for which they are furnished.

9.2. Records and other documents whatsoever relating to ships classed with the Society shall not be disclosed or communicated by the Society to any third party but with the prior approval of the owner, unless it is in pursuance of an order of the flag authorities or an injunction of a Court having jurisdiction.

ARTICLE 10

Should a technical disagreement arise between the requesting party and the BUREAU VERITAS surveyor, the Society may, at the request of that party, designate another of its surveyors.

ARTICLE 11

Any dispute over the interpretation, or the enforcement of these General Conditions of services, or the performance of BUREAU VERITAS's services, shall be submitted to arbitration in London. Arbitration proceedings will be conducted according to the English law on arbitration. The arbitrator shall be selected by the parties and, in case they could not reach an agreement, he would then be nominated by the President of the Law Society of England and Wales upon request of any party.

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Chapter 4	Facilities and safety equipment	January 1994

Lists of the Society's Survey Stations and Publications of Marine Branch are published at the beginning of every year; they are available on request.

FOREWORD

The present Rules have been developed for the purpose of classification and certification of fishfarms of all types located at sea or on lakes.

These Rules include in their scope Classification and Type Certification, granted by the Society independently from any National Authority; they include also in their scope Certification of Fitness and Certification of Fitness and Conformity liable to be granted by the Society on behalf of National Authorities.

They are presently issued under a Tentative form.

The present Rules are backed by other Rules, Rule Notes and Recommended Practices published by the Society, which are referred to in the document; these documents are, in particular:

- the "Rules and Regulations for the Classification of Steel Ships and Offshore Units - Materials", for all fishfarms;
- the "Rules and Regulations for the Classification of Ships", for ship and barge-type fishfarms;
- the "Rules for the Classification of Mobile Offshore Units", for offshore fishfarms or fishfarms built using offshore techniques, such as semi-submersible fishfarms.

Some documents among these are not yet available; awaiting them to be issued, reference is made to the corresponding requirements of the "Rules and Regulations for the Classification of Mobile Offshore Drilling Units", 1987 edition.

The present Rules include three Parts, divided into five Chapters:

Part I "Classification - Certification - Surveys", as traditional, includes two Chapters:

- Chapter 1 "Classification and certification" deals, as usual, with classification matters, but also with certification ones; in this Chapter indeed are defined Type Certification, Certification of Fitness and Certification of Fitness and Conformity; connections between classification and these certification schemes are in particular stressed upon, making the Rules applicable in all cases;
- Chapter 2 "In-service surveys" deals with in-service surveys required for classification maintenance and renewal; entry to the provisions of this Chapter applicable to fishfarms having received a Certificate of Fitness or a Certificate of Fitness and Conformity issued on behalf of National Authorities is made in Chapter 1.

Part II "Structural safety" includes also two Chapters:

- Chapter 3 "Support behaviour" deals with matters of hydrostatics and hydrodynamics, loads, keeping in location. Requirements concerning stability and permanent of floating fishfarms are specified;
- Chapter 4 "Support resistance" considers strength and durability of fishfarms built of various materials, submitted to loads specified in Chapter 3. Requirements concerning construction and testing are also specified.

Part III "Facilities and safety equipment" consists of a single Chapter, with the same title:

- Chapter 5 deals with equipment essential to the safety of the fishfarm, of personnel on board and of neighbouring maritime traffic; an original feature is that such requirements are also formulated for equipment and services, also defined as essential, necessary to the safety of fish.



Chapter 1

Classification and certification

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January 1994

Rules for the Classification and
Certification of Fishfarms

Bureau Veritas Marine Branch General Conditions apply, as given at the head of our Rules.

Note: unless otherwise specified, the requirements of this chapter are applicable to units for which contracts are signed after April 30th, 1994; however, the Society may refer to the contents thereof before that date, as and when necessary or appropriate.

Section 1-1 | CERTIFICATION & CLASSIFICATION SCHEMES

1-1.1 General

1-1.1.1 Certification and classification schemes

Certification and classification schemes, are summarized on Figures 1-1.1-I to -V, which correspond respectively to:

- unit type certification (refer to 1-1.1.2 for definition);
- certification with preliminary unit type certification;
- classification with preliminary unit type certification;
- isolated certification;
- isolated classification.

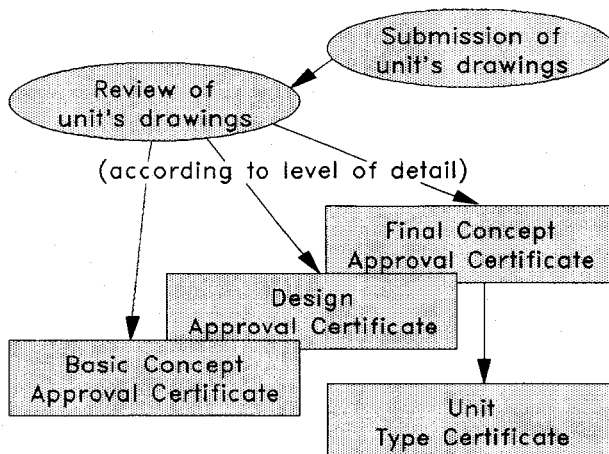
Classification, Certification of Fitness and Conformity and Certification of Fitness are defined in 1-2.1.1.1 1-1.3.1 and 1-1.4.1 respectively; Unit Type Certification is defined in 1-1.2.4; *isolated* is defined in 1-1.1.4.

1-1.1.2 Type certification

1-1.1.2.1

Type certification corresponds to an evaluation of the design taking into account environmental data which may be chosen without any reference to an actual location; mooring forces are obtained from these design environmental data, but without taking into account limit holding of anchors, clumps or piles, which depends on the actual soil on sea bottom.

**FIGURE 1-1.1-I
TYPE CERTIFICATION SCHEME**



1-1.1.2.2

It is to be noted that type certification is not mandatory to obtain certification of fitness and conformity, certification of fitness or classification; it is only a usual procedure when several fishfarms of the same design are intended to be built.

**FIGURE 1-1.1-II
CERTIFICATION SCHEME FOR
TYPE-APPROVED FISHFARMS**

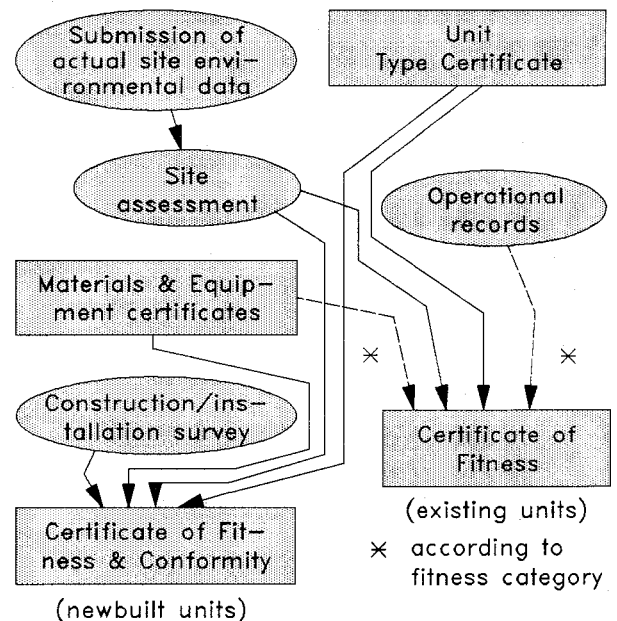
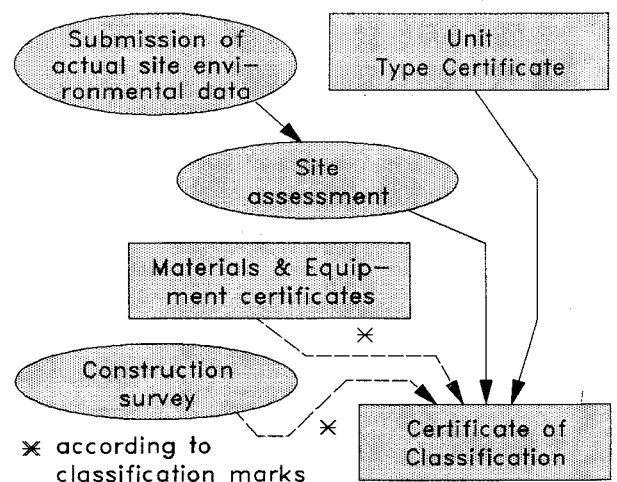


**FIGURE 1-1.1-III
CLASSIFICATION SCHEME FOR TYPE
APPROVED FISHFARMS**

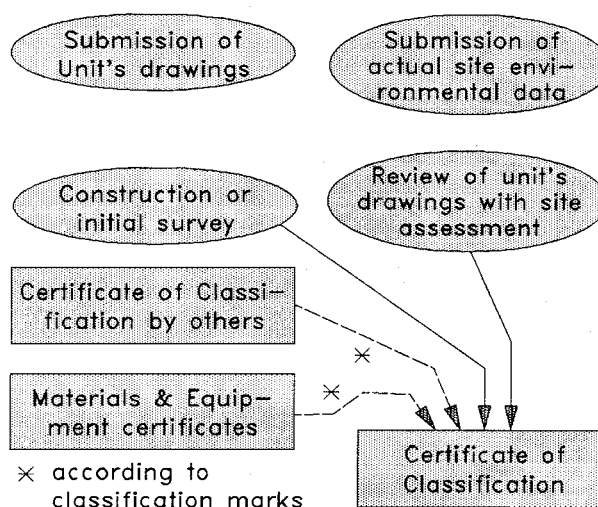


1-1.1.3 Site assessment

Within the frame of certification of fitness and conformity, certification of fitness and classification, a site assessment is always carried out. It consists:

- for a previously type-certified fishfarm, in checking that actual site environmental conditions are less severe than design ones, and in completing mooring studies by taking soil conditions into account;
- for a not previously type-certified fishfarm, in taking into account actual environmental site conditions to perform fishfarm design approval, using these and actual soil conditions to carry out mooring studies.

FIGURE 1-1.1-V
ISOLATED CLASSIFICATION SCHEME

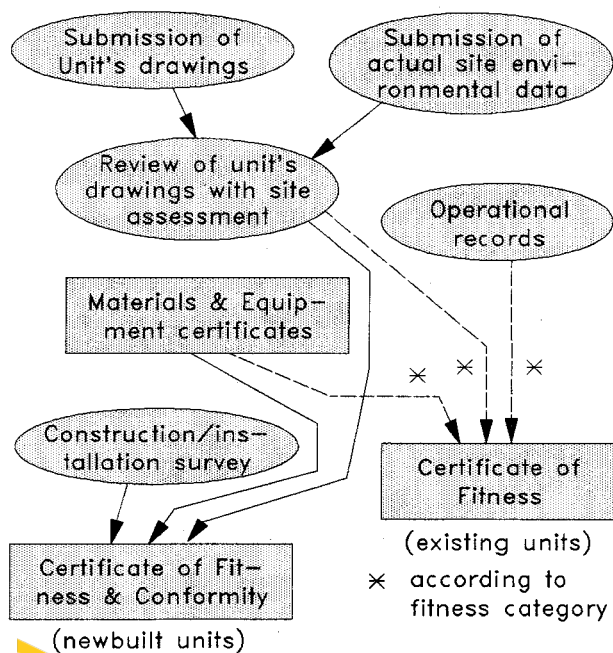


1-1.1.4 Isolated certification and classification

Wording *isolated* is used for certification or classification not based upon a type certification.

FIGURE 1-1.1-IV

ISOLATED CERTIFICATION SCHEME



1-1.2 Initial and unit type certifications

1-1.2.1 General

Initial certification is a design certification, attesting, according to its exact extent, that:

- the design complies with the present Rules;
- material and equipment contemplated for the construction have received a Type Approval Certificate (only for final concept approval).

According to the level of details reached in the approval, the initial certification may be a basic concept approval, a design approval, or a final concept approval or unit type certification.

1-1.2.2 Basic Concept Approval

Basic concept approval may be carried out as soon as pilot studies have been completed. This approval, which may be considered as a feasibility study covering principle of general arrangement, structure, stability and mooring, states that the outlines of the project are consistent with both the state of the art and the present Rules (possibly completed by other applicable Rules). A Basic Concept Approval Certificate is normally issued at the end of the basic concept approval, specifying in particular the exact set of Rules used, and which drawings have been examined.

1-1.2.3 Design Approval

Design approval has its place when the project developing studies are sufficiently advanced. At this stage, the main areas covered by classification or certification are reviewed and approved in principle: general arrangement, structure, stability, mooring, machinery and systems. Main structure and equipment drawings having been approved, a Design Approval Certificate is issued, with an attached Report which precises in particular considered environmental data, scope of approval (classification and/or certification on behalf of a Government), the exact set of Rules used, and which drawings have been approved.

1-1.2.4 Final Concept Approval / Unit Type Certification

Final concept approval or unit type certification may be granted only when, in supplement to those related to design approval (refer to 1-1.2.3) the following conditions are fulfilled:

- calculations and tests have been satisfactorily completed;
- limitations liable to interfere with either the construction or the use or the maintenance of the fishfarm have been properly considered.

In the case of a unit type certification, classification or certification related equipment and material having received a type approval are listed.

Final concept approval may give place, except in the case of immediately subsequent classification, to the issuing not only of a Final Concept Approval Certificate, but also of an attached report, with the same contents than for design approval.

In the case of a unit type certification, this report includes in particular environmental data used for structural checks.

When actually built, a fishfarm already granted with a Final Concept Approval Certificate may be granted a Class Certificate and/or a Certificate of Fitness and Conformity, under the following conditions:

- a satisfactory construction survey, with approved materials and equipment (according to classification marks - refer to 1-2.4.2);
- a satisfactory site assessment - refer to 1-1.1.3

1-1.2.5 Equipment and material type certification

As a general rule, all material and equipment used for fishfarm construction is to have received the adequate certificates from Bureau

Veritas or, subject to the agreement of the Society, from another body deemed as equivalent.

Alleviations to this requirement may be accepted by the Society provided it is satisfied that an equivalent level of safety is reached.

1-1.3 Certification of Fitness and Conformity

1-1.3.1 General

Certificate of Fitness and Conformity is a certificate which may be issued by the Society on behalf of a Government by which the Society has been entrusted, to new fishfarms provided they are designed, built, equipped and moored according to provisions of the present Rules.

Note: except otherwise noted, requirements formulated for classification are applicable as well to fishfarms intended to receive a Certificate of Fitness and Conformity.

1-1.3.2 Validity

Certificate of Fitness and Conformity is valid five years, provided that the fishfarm is operated, maintained and inspected according to provisions of Section 1-2.

Certificate of Fitness and Conformity may be renewed, in the same conditions than Classification Certificate, after a satisfactory special survey (refer to Section 1-2).

1-1.4 Certification of Fitness

1-1.4.1 General

Certificate of Fitness is a certificate which may be issued by the Society on behalf of a Government by which the Society has been entrusted, to an existing fishfarm. This Certificate specifies a Category to which the certified fishfarm belongs (from I to III), according to the extent of checks and inspections made on this fishfarm. In 1-1.4.2 to 1-1.4.4 are specified the extents of checks and the inspections corresponding to these three categories.

1-1.4.2 Category I Certificate of Fitness

Certificate of Fitness, Category I, may be granted, subject to a satisfactory initial survey identical in scope to special survey (refer to Section 1-2), to existing fishfarms which have been designed, built, equipped and installed according to the provisions of the present Rules and for which records of satisfactory operation are available.

Notes:

- a) Except otherwise noted, requirements formulated for classification are applicable as well to fishfarms intended to receive a Certificate of Fitness, Category I.

- b) Within the scope of Category I Certification of Fitness, design checks may be carried out at the time of certification, but survey of construction and installation is to have been carried out previously.
- b) Category I Certification of Fitness differs from Certification of Fitness and Conformity mainly by the fact that certification takes place after a lapse of time during which the fishfarm has not been submitted to periodical survey by a Certifying Authority.

Certificate of Fitness, Category I, is valid five years, provided that the fishfarm is operated and maintained according to provisions of Section 1-2, and that satisfactory annual surveys are carried out as provided for in this Section 1-2.

Certificate of Fitness, Category I, may be renewed, in the same conditions than Classification Certificate, after a satisfactory special survey (refer to Section 1-2).

1-1.4.3 Category II Certificate of Fitness

Certificate of Fitness, Category II, may be granted, subject to a satisfactory initial survey identical in scope to special survey (refer to Section 1-2), to existing fishfarms which have been designed according to the provisions of the present Rules but the construction and/or installation of which has not been surveyed in compliance with these.

Note: except otherwise noted, requirements formulated for classification are applicable as well to fishfarms intended to receive a Certificate of Fitness, Category II.

Certificate of Fitness, Category II, is valid four years, provided that the fishfarm is operated and maintained according to provisions of Section 1-2, and that satisfactory annual surveys are carried out as provided for in this Section 1-2.

Certificate of Fitness, Category II, may be renewed, in the same conditions than Classification Certificate, after a satisfactory special survey (refer to Section 1-2).

1-1.4.4 Category III Certificate of Fitness

Certificate of Fitness, Category III, may be granted, subject to a satisfactory initial survey identical in scope to special survey (refer to Section 1-2), to existing fishfarms which have not been designed according to the provisions of the present Rules and the construction and/or installation of which has not been surveyed in compliance with these, but for which records of satisfactory operation are available.

Certificate of Fitness, Category III, is valid two years, provided that the fishfarm is operated and maintained according to provisions of Section 1-2, and that a satisfactory annual survey is carried out as provided for in this Section 1-2.

Certificate of Fitness, Category III, may be renewed, in the same conditions than Classification Certificate, after a satisfactory special survey (refer to Section 1-2).

1-1.5 Approval, surveys and inspection by the Society

Approval, surveys and inspection carried out by the Society during the different steps of classification and certification (design appraisal, inspection at works of materials and equipment, review of certificates, construction and installation surveys, testings) are summarized in Table 1-1.5.

TABLE 1-1.5
APPROVALS, SURVEYS AND INSPECTIONS

Required service	Design appraisal fully satisfactory	Materials and equipment		Surveys of		Testings
		Inspection at works	Review of certificates	Construction	Installation	
Classification (under special survey)	yes (1)	yes (2)	yes (7)	yes (2)	yes	yes (2)
Certification of Fitness and Conformity	yes (1)	yes (2)	yes (7)	yes (2)	yes	yes (2)
Certification of Fitness Category I	yes	no	yes (3)(7)	no	no (4)	yes (5)
Certification of Fitness Category II	yes	no	no	no	no	yes (5)
Certification of Fitness Category III	no (6)	no	no	no	no (4)	yes (5)

Note: the meanings of the insertion marks are the following ones:

- (1) may include a site assessment when based upon a unit type certification;
- (2) with some possible alleviations in case of previous type approval of the fishfarm;
- (3) limited to most important items, to the Satisfaction of the Society;
- (4) satisfactory in-service operation being duly documented;
- (5) according to already performed testings, in-service experience and corresponding documentation, to the satisfaction of the Society;
- (6) design appraisal is considered as not fully satisfactory when some requirements of the Rules are not complied with.
- (7) net certificates will not be reviewed within the scope of classification, as nets themselves are beyond this scope; on the contrary, they will be reviewed within the scope of certification of fitness and conformity; it is to be noted that nets actually fitted on the fishfarm are to be, in this case, properly marked (Manufacturer, type, ordering number, date of fabrication) to make their identification possible.

Section 1-2 | CLASSIFICATION

1-2.1 General

1-2.1.1 Principle of classification

1-2.1.1.1 Symbols, marks and notations

The fishfarms, the construction and condition of which satisfy the requirements of the present Rules or which satisfy to standards of strength and safety deemed as equivalent by the Society, are registered with classification symbols, marks and notations.

Classification symbols or class denote the degree of confidence deserved by the fishfarm.

Marks and notations relate to the type of survey of construction and indicate the fishfarm type and special arrangements.

After satisfactory review by the Society of the reports drawn by the Surveyors of the Society after surveys, the classification symbols, marks and notations are confirmed.

These procedures are reviewed by the Classification Committee.

Note: in the Rules, whenever no ambiguity is possible, the word *class* is used to signify classification symbols and associated marks and notations.

1-2.1.1.2 Certificates - Registers

The classification symbols, marks and notations are entered on Classification Certificate and in one of the Registers published each year by the Society or in the supplements to the Registers.

The Classification Certificate, all annexed documents issued by the Society to the fishfarm and the Operating Manual are to be kept on board in a safe location and are to be made available on request to the Surveyors.

The Classification Certificate is issued for a period known as the class term or term. The validity of the assigned class, as mentioned on the certificate, is conditioned upon due compliance with the requirements of Chapter 2 regarding maintenance of class.

1-2.1.2 Conditions of classification

1-2.1.2.1 General

The representatives, Surveyors, agents and other persons appointed by the Society act within the scope of the General Conditions which regulate the activities of the Society.

1-2.1.2.2 Scope of classification

The classification activities are performed in accordance with the provisions of the General Conditions and the requirements of the present Rules or of any other applicable Rules, Regulations, Rule Notes, Guidance Notes and Recommended Practices published by the Society to which reference is made in the present Rules.

In accordance with the provisions of the General Conditions the Society does not act in matters which fall outside the scope of classification as set out in the Rules and which are the responsibility of Owners, Designers, Builders, materials and equipment Manufacturers and Suppliers, and of Administrations, such as the design, engineering, manufacturing, operating procedures, choice of type and power of machineries and equipment, number and qualification of crew or operating personnel, etc.

Note: here as well as throughout the present Chapter and Chapter 2, Administration means the government under the jurisdiction of which lies the fishfarm concerned.

1-2.1.2.3 Limits of classification

The regulations set forth in the present Rules including those related to the assignment, continuation and renewal of class apply to fishfarms adequately loaded and operated, by competent and qualified crew and/or operating personnel, in accordance with the environmental, loading and other criteria on which classification is based.

Unless otherwise specified, classification does not cover structures, pressure vessels, machineries and equipment not described in the Rules if they are not related to the global safety of the fishfarm.

Nevertheless, classification covers these structures, vessels, machineries and equipment for their specific items, components or phases of their installation aboard which affect the fishfarm structural overall and local strength, buoyancy, stability and fire/explosion safety.

Classification does not cover the review of the fishfarm structural strength during its construction. The Builder is to ensure that construction activities such as lifting, launching, etc., are compatible with the fishfarm designed strength and that no permanent deformations are sustained.

Note: review for the fishfarm structural strength with regard to construction loads may however be performed by the Society on specific request.

1-2.1.2.4 Operating Manual

An Operating Manual is to be placed onboard. The Operating Manual is to incorporate a dedicated section containing all information relating to classification, particularly environmental, loading and other classification criteria as well as classification restrictions. The Operating Manual is to be, at all times, placed on board the fishfarm and made available to all concerned. A copy of the Operating Manual is to be retained ashore by the Owner or his representative.

It is the responsibility of the party applying for classification to prepare the contents of the Operating Manual which include instructions regarding the safe operation of the systems and equipment fitted on the fishfarm, together with necessary emergency procedures. In the case of a certified fishfarm, the Operating Manual is also to include identification of nets fitted on the fishfarm.

The Operating Manual is to be submitted for review to the Society, this review being limited to checking that the classification or certification related material contained in the dedicated section mentioned above is consistent with data given in the Design Criteria Statement. This section is to include the following information, where applicable:

- general description and principal particulars of the fishfarm;
- design data sheets specifying classification criteria referred to in the Design Criteria Statement;
- general arrangement plan showing all items related to buoyancy and stability;
- permissible loadings on decks and gangways;
- stability drawings if relevant;
- arrangements for permanent anchoring and, if relevant, towing;
- ballast system drawings if relevant;
- fire safety drawings, if all particulars are not shown on general arrangement plan;
- schematic diagrams of main emergency power supplies and electrical installations, where applicable.

These information may be supplied, where such documents are available, by notices issued by the Builder of the fishfarm and included within this section.

As soon as issued by the Society, the following documents are to be added into this section:

- Design Criteria Statement issued by the Society, including classification restrictions, if any;
- Classification Certificate and other certificates issued by the Society.

1-2.1.2.5 Access for surveys

The Rules requirements for class maintenance surveys are to be given due consideration during the fishfarm design and construction phases as regards all necessary arrangements for access. Arrangements of a special nature are to be brought to the attention of the Society.

For secondary spaces, or small volume spaces, the Society may accept that no access is provided for inspection. When necessary, the Society may call for additional requirements.

1-2.1.2.6 Refusal or withdraw of classification

The Society reserves the right to refuse or to withdraw the classification of any fishfarm for which any applicable requirement of the Rules is not complied with.

1-2.1.3 The Rules

1-2.1.3.1

The present Rules deal basically with floating fishfarms in sheltered waters (significant wave height not exceeding 2 m).

Due to the wide variety of fishfarm types and sizes, the Society reserves the right to require, where it deems it necessary because of the nature of the fishfarm or of the severe environmental conditions, the application of other Rules from the Society or other relevant documents to complement requirements of the present Rules; complementary Rules are, in particular:

- the "Rules and Regulations for the Classification of Ships", in particular for converted ships;
- the "Rules for the classification of Offshore Mobile Units", for semi-submersible fishfarms or fishfarms using techniques from the offshore field.

Applicable provisions of other Rules, Regulations, Rule Notes, Guidance Notes and Recommended Practices, to which reference is made in the present Rules, are considered as forming part of the Rules.

1-2.1.3.2

The Society will consider alternatives to the provisions of the Rules provided that they can be demonstrated, through satisfactory in-service experience or sound engineering analysis, to be equivalent to the overall strength and safety standards set forth in the Rules.

The Society will consider the classification of fishfarms incorporating novel design principles or features, to which the provisions of the Rules are not directly applicable, on the basis of experimentations, calculations or other supporting information provided to the Society.

Note: Owners and Builders are reminded that arrangements which enable the provisions of the Rules to be met may be protected by patents.

1-2.1.3.3

The Society may accept surveys and approval done by Administration or by an organization recognized by it, concerning fire protection, ventilation systems or means of escape. In such cases, supporting documents are to be transmitted to the Society.

1-2.1.3.4

Whenever necessary or justified, the Society may modify any requirement of the present Rules, lay down new ones and change the Rules application.

Rules changes become applicable to fishfarms the contract of which is signed 3 months after their publication. However the Society may, when necessary or justified, decide upon an earlier implementation date.

Implementation of Rules changes before their effective date may also be requested by the Owner or the party applying for classification.

The implementation of Rules changes - except those of Chapter 2 concerning the surveys - to already classed fishfarms, or to fishfarms the contract of which has already been signed at the time of entry into force, is not required unless deemed necessary by the Society on advice of the Classification Committee or specifically requested by the Owner or the party applying for classification.

1-2.1.4 Governmental Authorities and statutory surveys

1-2.1.4.1

Attention of Owners, Designers, Builders and other interested parties is drawn to the requirements of applicable international conventions, national laws and regulations and other instruments.

Unless provided for by the provisions of 1-2.1.4.2, the Society's activities do not cover the above mentioned requirements.

Governmental applicable regulations are to take precedence over the requirements of the present Rules. In case of conflict, to be brought to the attention of the Society by the party applying for classification, the Society reserves the right to call for the necessary adaptations to preserve the intent of the Rules requirements or to apply the provisions of 1-2.1.2.6.

Note: the attention of the Designer and of the Owner is drawn upon the fact that applicable National Regulations may depend of the category of workers (sailors, fishermen, factory workers, etc.) operating the fishfarm, and that National Authorities are sole competent to decide to which category this workers are to be considered as belonging.

1-2.1.4.2

When authorized by the Administrations, the Society will survey the fishfarms, with respect to the provisions of the national or international regulations, report and issue or cause the issue of the corresponding certificates.

Such is the case, in particular, for Certificate of Fitness and Conformity and Certificate of Fitness (refer to 1-1.3 and 1-1.4 respectively).

The surveys mentioned above, carried out on behalf of an Administration do not, as stated under 1-2.1.2.2, fall within the scope of classification of the fishfarms.

1-2.1.4.3

National Codes and Standards may be, on specific agreement of the Society, accepted as alternatives to the Rules requirements provided that they can be proved as equally effective.

1-2.2 Definitions

1-2.2.1 Conditions of operation

1-2.2.1.1

Inhabited fishfarms are those on board which personnel is permanently - or nearly permanently - present, either because they live in accommodation facilities provided on board, or because shift working conditions are organized.

Unmanned fishfarms are those which, due to the simplicity of fishfarming operations performed, or to their automatization, accommodate personnel only for short periods of time (food, oxygen or fuel supply, battery charging, fish-catching, maintenance operations, etc.).

Note: it is the responsibility of the Owner or of the party applying for classification to specify to the Society if the fishfarm is to be considered as either inhabited or unmanned.

1-2.2.1.2

Working conditions are normal conditions of operation of the fishfarm.

1-2.2.1.3

Severe storm condition is condition where only operations which cannot be postponed are carried out, due to the severity of environment. As a general rule, small fishfarms are unmanned in this condition.

1-2.2.1.4

Transit condition is condition wherein a fishfarm is moving from one location to another, if such a condition is contemplated in the Operating Manual.

1-2.2.2 Essential, emergency and vital services

1-2.2.2.1

Essential services mean services required to be in continuous operation to maintain the safety of the fishfarm and to generate the power supply necessary to meet the operational demand of the fishfarm. Operational power demands are to be specified by the party applying for classification.

Services essential to the survival of the fish are to be considered as essential services; it is the responsibility of the party applying for classification to specify these services.

1-2.2.2.2

Emergency services mean services required to be put into operation for the safety of the fishfarm under an emergency condition.

1-2.2.2.3

Vital services are those services of the fishfarm which cannot be interrupted, even upon a short period, without impairing the safety of the fishfarm, or of its personnel, or of fish.

1-2.3 Classification particulars and criteria

1-2.3.1 General

1-2.3.1.1

Application for classification is to be made in writing, using the request for classification form, by the Owner, his representative or the Builder. The application form is signed by the party applying for classification and a representative of the Society.

1-2.3.1.2

After completion of the surveys, the Surveyor issues Classification Certificates and annexes to the party applying for classification and prepares a report to the Society.

After examination of this report to the satisfaction of the Society, the class assigned to the fishfarm is confirmed in the Register.

These procedures are reviewed by the Classification Committee.

Note: in general, the date of construction is the date of the last survey made by the Surveyors during the construction or trials of the fishfarm.

1-2.3.1.3

In compliance with 1-2.1.1.1 no class is assigned to a fishfarm the hull, auxiliary machineries, installations, and equipment providing the essential, emergency and vital services as defined in 1-2.2.2, have not been accepted as adequately meeting the requirements of the Rules.

1-2.3.1.4

It is incumbent upon the Owner or the party applying for classification to notify the Surveyor of any defects occurring during the construction of the fishfarm with proposal regarding adjustments, strengthening or modifications intended to remedy such defects.

If the remedial works are not to the Surveyor's satisfaction, the Society reserves the right to decline to class the fishfarm or to assign a class ranking below the one stipulated on the classification request form or on the reviewed drawings.

1-2.3.2 Fishfarms built under special survey

1-2.3.2.1

When a fishfarm is built under special survey, the Society:

- reviews the drawings listed in the Rules;
- surveys, at the Manufacturers' works, the materials and equipment used in the construction of the fishfarm and to which the Rules apply;
- surveys the fishfarm construction to satisfy itself that the scantlings and construction meet satisfactorily the Rules requirements aspects of the reviewed drawings;
- supervises tests and trials provided for in the Rules.

Note: it is recommended that a duplicate copy of the unpriced purchase orders for materials and equipment used in the construction and which fall within the scope of classification is sent to the Surveyor, as early as possible, by the Builder or the Supplier.

1-2.3.2.2

As part of his interventions, the Surveyor proceeds to:

- an overall examination of the parts of the fishfarm covered by the Rules;
- an examination of methods and procedures applied by the Builder to make and control the construction;
- as well as to more thorough verification through random checking and counter checking.

Note: the Society's surveys cannot be considered as a substitute for the construction control which remains the responsibility of the Builder, nor for the fishfarm acceptance which remains the responsibility of the Owner.

1-2.3.2.3

The Society defines which materials and equipment used for the construction of fishfarms built under special survey are as a rule covered by a certificate of inspection.

1-2.3.2.4

As a general rule, the machinery and equipment intended for fishfarms built under special survey, are also to be built under special survey.

However, when some items of the machinery or equipment are not built under special survey, they are subject to a special examination by the Society.

1-2.3.3 Fishfarms not built under special survey

Requirement 1-2.3.2.1 is applicable to fishfarms not built under special survey, except concerning the survey at the Manufacturers' works of materials and equipment.

It is incumbent upon the Builder to ascertain that the materials and equipment used in the fishfarm construction satisfactorily meet the Rules requirements.

1-2.3.4 Fishfarms classed after construction

If the fishfarm is already in service, a programme of surveys, appropriate to its age and condition, is determined by the Society.

Plans and data deemed necessary on account of the fishfarm type and service experience, are to be submitted, on the basis of Section 1-3.

1-2.3.5 Design criteria: general

Classification is based upon the design data or assumptions specified by the party applying for classification.

Reference will be made on the fishfarm Classification Certificate to the Design Criteria Statement listing the design conditions and other assumptions on the basis of which class is assigned to the fishfarm.

The Design Criteria Statement is to be incorporated in the Operating Manual as prescribed in 1-2.1.2.4.

1-2.3.6 Structural design criteria

The information called for in 1-2.3.5 and further specified in 1-3.3.2 is to contain the necessary data pertaining to the structural design of the

fishfarm which is to be performed for the different conditions of operation of the fishfarm, as defined in 1-2.2.1.2 to 1-2.2.1.4.

The working conditions refer to the retained combinations of environmental, fixed and operational loads acting on the fishfarm during its activities.

The severe storm condition relates to the load condition associated with the most severe environmental conditions which the fishfarm is designed to withstand.

The transit condition refers to the passages of the fishfarm between different geographic areas.

Notes:

- Transit of fishfarms is covered by classification as regards only the fishfarm structural overall and local strength as well as stability. Other aspects relating to towing are reviewed only on special request for a towage survey.
- The environmental data are to be specified under the format called for in the present Rules.
- As regards foundation design, classification is based upon the data submitted by the party applying for classification, under the format called for by the Rules.

1-2.3.7 Machinery, electrical and other system design conditions

The information called for being provided by the party applying for classification in 1-2.3.5 is to contain the necessary description, diagrammatic plans, design data of all systems, including those used solely for fishfarming and, where applicable, their cross connections with other systems. The submitted data are to incorporate all information necessary to the assessment of its class to the fishfarm.

The party applying for classification is also to specify the maximum power demands including impact loadings at given loads and power factors for different operational configurations. The specifications are to list all important equipment and apparatus (refer to 1-3.3.5.4), their rating and the power factors as applicable.

1-2.3.8 Classification restrictions and limits

1-2.3.8.1 Site conditions and operating procedures

It is incumbent to the Owners to perform the necessary investigations, including environmental and geotechnical surveys, prior to operating the fishfarm at a given site. The investigations are to be conducted to ascertain that the actual conditions met at the contemplated operating site remain on the safety side when compared to design data and assumptions, particularly those listed in the Design Criteria Statement.

The procedures to be used for the installation of the fishfarm are to be submitted to the Society for review and the Surveyor is to be advised sufficiently in advance to perform surveys he deems necessary during installation. The said procedures and their implementation are to satisfy the classification criteria of the fishfarm and the design of the related equipment.

1-2.3.8.2 Classification restrictions

Classification does not cover the assessment of sea bottom conditions and geotechnical investigations.

When the design data and assumptions specified by the party applying for classification do not comply with the applicable Rules requirements, restrictions may be placed upon the class of the fishfarm.

Class restrictions, if any, will be entered as a *Note* on the fishfarm Classification Certificate and are to be incorporated in the Operating Manual prescribed in 1-2.1.2.4.

1-2.4 Class, marks and notations

1-2.4.1 Class

1-2.4.1.1

Classification symbols comprise the division number, rating fraction, and equipment symbol. This information is grouped together on the certificate and in the Register before any other mark or notation.

1-2.4.1.2

The division number is indicated by the Roman numeral I or II.

Division I fishfarms are to meet the Rules requirements for the construction and scantlings of the structure and the essential components relating to safety.

In the event that some construction or scantlings requirements are not met but it is deemed possible to enter the fishfarm in the Registers, it is classed in division II.

1-2.4.1.3

The rating fraction, placed after the division numeral, denotes the degree of confidence deserved by the fishfarm.

Rating 3/3 is assigned to fishfarms the condition of which is considered satisfactory by the Society.

Rating 5/6 is assigned to fishfarms complying generally with the Rule requirements, but for which, due to their condition and/or their age, it has been considered necessary to define interval between special surveys shorter than those normally granted to fishfarms being assigned the rating 3/3.

1-2.4.1.4

The equipment symbol P, placed after the rating fraction, indicates that the fishfarm permanent anchoring equipment meet the applicable requirements of the Rules.

Equipment symbol is replaced by (-) when the particulars of the fishfarm dispense it from a permanent anchoring system (bottom-supported fishfarms, for instance).

1-2.4.2 Construction marks

1-2.4.2.1

The mark ☒ is assigned to fishfarms built in compliance with the requirements of 1-2.3.2 or procedures deemed equivalent.

1-2.4.2.2

The mark ☒ is assigned to fishfarms built under the survey of other authorities and which have been assigned by such authorities a class deemed equivalent to a class described in the Rules.

The mark ☒ may also be assigned to fishfarms built under the Survey of the Society but which do not meet some provisions of the Rules to qualify for the mark ☒.

1-2.4.2.3

The mark ● is assigned to fishfarms built in accordance with the requirements of 1-2.3.3, or to those classed after construction and which do not qualify for the mark ☒.

1-2.4.3 Service/type notations

Every fishfarm is assigned a service/type notation including the type notation **Fishfarm** followed by a **type notation**.

The type notation specifies the geometrical type of the unit, and indicates whether it is inhabited or unmanned.

Such service/type notations may be, the list being not limitative:

- **Fishfarm (rigid 2 x 2 frame - unmanned);**
- **Fishfarm (articulated 8 x 2 frame - inhabited);**
- **Fishfarm (articulated pentagons);**
- **Fishfarm (converted ship - inhabited);**
- **Fishfarm (semi-submersible - inhabited).**

When an indication such as $n \times p$ is given within the type notation, it designates, for rectangular cages, the number of cages in longitudinal and transverse directions.

1-2.5 Fishfarm classification based upon a unit type certification

A fishfarm certification based upon a unit type certification requires the following:

- approval of the environmental conditions contemplated, as consistent (equivalent or less severe) with the environmental conditions considered for the unit type certification;
- survey of construction, including the inspection at works of material and equipment subject to type certification;
- survey of tests on yard, installation on site, and tests after installation.

1-2.6 Isolated fishfarm classification

An isolated fishfarm classification is a fishfarm classification not based upon a unit type certification; it includes:

- review and approval of structure and equipment drawings and diagrams covering the main areas included in the scope of classification or certification: general arrangement, structure, stability, mooring, machinery and systems, electrical diagrams; this review is based upon actual environmental conditions of the site where the fishfarm is to be installed;
- review of appropriate calculations and tests;
- convenient consideration of limitations liable to interfere with either the construction or the use or the maintenance of the fishfarm;
- approval, possibly with type approval, of classification or certification related equipment and material;
- inspection at works of materials and equipment actually intended to be used for the construction;
- survey of construction itself;
- survey of tests on yard, installation on site, and tests after installation.

Section 1-3 | DOCUMENTATION TO BE SUBMITTED

1-3.1 Request of services

The typology used for the purpose of the application of the present Rules is defined in Table 1-3.1.1.

1-3.1.1 Fishfarm typology

**TABLE 1-3.1.1
TYPOLOGY OF FISHFARMS**

Fishfarm type	Water renewal	Cage boundaries	Support			Cage shape
			Resting	Stiffness	Ballasting	
Barge or converted ship	forced	watertight	floating	rigid	ballastable or not ballastable	not modifiable
Rigid pontoon	free	porous	floating	rigid	not ballastable	not modifiable
Submersible cage unit	free	porous	submersible	rigid	ballastable	not modifiable
Articulated unit	free	porous	floating	articulated	not ballastable	not modifiable
Watertight cage unit	forced	watertight	floating	flexible	not ballastable	not modifiable
Bottom-resting unit	free	porous	bottom-resting	rigid	ballastable or not ballastable	not modifiable
Flexible cage unit	free	porous	floating	flexible	not ballastable	not modifiable
Modifiable cage unit	free	porous	floating	rigid	ballastable	modifiable
Ballastable unit	free	porous	floating	rigid	ballastable	not modifiable
Other types	According to design					

Notes:

- Water renewal inside fishfarming cages is said *forced* when it is active (generally provided by a pump); it is said *free* when it is passive (generally provided by natural motion of water).
- Watertight* cage boundaries are generally associated to forced water renewal, while *porous* ones are generally associate to free water renewal.
- A *floating* support rests on the surface of the sea by means of extra buoyancy; it is said *submersible* when, in particular phases of operation, it lies completely below the surface of the sea, while remaining connected to the sea bottom by a particular anchoring system; a *bottom-resting* support, remains on site because of gravity (self-weight, possibly completed by solid or liquid ballast) or of piles connected directly to this support, without intermediate anchoring lines.
- The support may be *rigid*, i.e. not liable to be induced large deformations by waves; it is said *articulated* when large deformations are possible through deformation of particular systems (hinges, flexible connections) connecting rigid members; it is said *flexible* when the whole supporting structure is induced large deformations by the wave.
- The support is said *ballastable* if some buoyant elements may be voluntarily filled of water; otherwise, it is said *not ballastable*.
- The fishfarming cage is said *modifiable* when its shape can be changed to facilitate some operations (fish catching, change of net, etc.); otherwise, it is said *not modifiable*.

1-3.1.2 Documentation necessary for request of services

In all cases, the party applying for certification or classification is to submit, in the same time than their request for certification or classification all the documentation necessary to know the importance of the fishfarm, i.e.:

- a description of the fishfarm, specifying all characteristics and operating features necessary for definition of fishfarm typology according to used in Table 1-3.1.1;
- a statement specifying whether the fishfarm is to be considered as inhabited or unmanned, as provided for in 1-2.2.1.1;
- all general arrangement drawings, showing main dimensions, constructional principles and materials used;
- where applicable, the possible particular operational modes;
- an equipment drawing, with power and/or capacity of main appliances;
- a list of equipment related to fishfarming which are to be considered as ensuring essential, emergency or vital services;
- relevant information about fishfarm conditions of operation (environmental conditions, in particular).

1-3.2 Certification and/or classification: general

1-3.2.1 Application

The present 1-3.2 is applicable to all types of classifications and certifications.

1-3.2.2 General

Plans and documentation necessary for type certification and/or classification are to be submitted for the review by the Society, as listed in 1-3.3 to 1-3.5 and in relevant Chapters of the Rules, as applicable.

For additional requirements applicable to nets in case of certification, refer to 1-3.7.

In addition, the Society may call for additional information, drawings or documents, according to particulars of the fishfarm to be classed or certified.

The plans and documents submitted to the Society for approval are examined in relation to the class applied for in the request for classification form, or to the nature of certification considered.

Note: should the Owner or the party applying for classification subsequently wish to have the design data contained in the Design Criteria Statement modified, plans and drawings are generally to be re-examined.

1-3.2.3 Requests from the Society

Copy of the submitted plans will be returned duly stamped with, should the need arise, request for alterations or additions as deemed necessary to meet Rules requirements or local conditions of use.

1-3.2.4 Modifications

Modifications of the approved drawings to items covered by certification and/or classification, are to be submitted for approval.

1-3.2.5 Submission delay

The required plans, drawings and documentation are to be submitted as early as possible, by the party applying for classification, to the local Surveyor, unless otherwise agreed upon.

1-3.2.6 Contents of documents

The submitted plans and drawings are to clearly show all essential features, arrangements and scantlings of the hull, machineries, boilers, auxiliaries and other equipment covered by the classification.

1-3.3 Unit type certification

1-3.3.1 General

1-3.3.1.1 Application

1-3.2 is applicable.

1-3.3.1.2 Design data and calculations

Design data to be submitted to the Society are to incorporate all information necessary to the assessment of the design of the fishfarm for the purpose of unit type certification.

Adequately referenced design calculations are to be provided, when called for, as supporting document to the submitted plans and drawings.

It is the responsibility of the party applying for certification to ascertain that the design data and references used are correct, complete and compatible with the use of the fishfarm.

1-3.3.1.3 Plans and drawings

The submitted plans and drawings are to contain all necessary information for checking the compliance with the requirements of the Rules.

In case of conflicting information, submitted documentation will be considered in the following order of precedence: design data, plans and drawings, design calculations.

It is the responsibility of the Builder to ascertain that drawings used for the procurement, construction and/or other works are in accordance with the approved drawings.

1-3.3.2 Design data

The following design data are to be submitted for information and plan approval purposes:

- environmental data to include minimum atmospheric and sea water temperatures and soil conditions and ice formation as applicable. The data are to be as comprehensive as possible and to clearly give evidence of all applicable environmental restrictions;
- Note:** soil conditions are given as a reminder, as type certification may be granted independently from any check of anchor, pile or clump holding power - refer to 1-1.1.2;
- distributions of fixed and variable loads;
- maximum loading for all decks areas and gangways;
- necessary data relevant to corrosion protection;
- model basin tests data for the determination of the fishfarm response or hydrodynamic coefficients, if applicable;
- power demands in all conditions of operation;
- all information about equipment related to fishfarming which are to be considered as ensuring essential, emergency or vital services (power or capacity, number of functioning hours required, etc.).

1-3.3.3 Design calculations

The following design calculations are to be provided as supporting documents to the submitted plans and drawings:

- calculations of, or results of model tests enabling to predict environmental loadings to include forces and moments from wind, waves, currents, ice, snow, earthquakes, as applicable;
- stability calculations for the intact and damaged conditions including detailed computation of wind exposed areas and, if applicable, ice formation effects;
- calculations, for bottom-supported fishfarms, of the fishfarm resistance against overturning or sliding while resting on the sea bed;
- structural overall and local strength calculations. Local strength calculations and dynamic response as relevant, are to adequately include all significant static and dynamic loadings, for instance, tensioners or towing lines foundations;
- permanent anchoring calculations;

Note: permanent anchoring calculations do not include calculation of anchor, pile or clump holding power - refer to 1-1.1.2;

- piping and pressure vessel strength calculations;
- fire water demand and fire pump capacity calculations, if applicable;
- electrical design calculations (an electrical balance of power for main, auxiliary and emergency circuits, a selectivity and earthing coordination estimation, a prospective short circuit current calculation, etc.) as necessary.

1-3.3.4 Particular load data

All information is to be given upon loads induced in the fishfarm structure by its equipment items, such as nets, lifting appliances if any, gangways, etc.

In particular must be supplied, for the different handling equipment (winches, pulleys, buttresses, fenders) and anchoring deck appliances (stoppers, tensioners, fairleads, etc.) of the loads they may induce in the structure of the fishfarm, with their nature (permanent - non permanent - normal - extreme - etc.).

For equipment used for chain cable or wire rope operation, the guaranteed rupture strength of the line is to be indicated in all cases, in addition to other information (such as maximum tensioning capacity, and maximum braking capacity for winches).

In the case of large fishfarms including a helideck, are to be indicated prints of the heaviest helicopter intended to be used, distribution of its weight on its wheels or skids, diameter of its rotor and approximate geometry of its fuselage.

1-3.3.5 Plans and drawings

1-3.3.5.1 General drawings

The following general drawings are to be submitted:

- general arrangement plan;
- definition of the floater(s) geometry, including all information enabling to define precisely hydrostatic characteristics and articulations of all buoyant parts of the structure;
- capacity plan indicating the volumes, overflows and longitudinal positions of centres of gravity of the various compartments together with their locations;
- distribution, actual or estimated, of the fishfarm lightweight;
- deck loading plans.

1-3.3.5.2 Structural drawings

The following structural drawings are to be submitted :

- if applicable, test plan of tanks intended for liquid or bulk storage;
- if applicable, arrangements and details of watertight doors and other closing appliances; arrangement and details of all openings including locations of overflow and air pipes;
- main structural drawings showing structural arrangements, scantlings of platings, stiffeners and members, grades of steel, welded and articulated connections.
- detailed structural drawings in the vicinity of connections between:
 - main structural members;
 - articulated buoyant parts;
 - in way of foundations of anchoring equipment and of all other parts liable to be subject to high local loadings or stress concentrations;
- drawings showing corrosion control arrangements, if any.

1-3.3.5.3 Machinery drawings

The following machinery and piping drawings are to be submitted where applicable:

- general arrangement showing particularly location of essential machinery and equipment;
- fixed bilge and ballast systems, if any;
- cooling water system, if any;
- air vents, sounding and overflow piping systems;
- compressed air systems;
- hydraulic systems, if any;
- boilers, if any, and pressure vessels;
- steam piping arrangements, if any;
- power generating systems.

The drawings are to be diagrammatic and are to refer to a single system, in order to facilitate their examination. They are to include:

- service pressures and temperatures, in order to determine their classes;
- size and nature of materials for pipes and accessories;
- capacity, prime mover and, if needed, location of the pumps;
- arrangements proposed when remote control, remote monitoring or automation, are foreseen for the installations concerned;
- generally, all information allowing the verification of the requirements of the Rules;

- specification of systems;
- fabrication specification;
- welding procedure specification;
- operation control procedures.

1-3.3.5.4 Essential, emergency and vital power consumers

The list of essential, emergency and vital power consumers of all types is to be submitted together with the complete indications of the required power supplies associated to different operational configurations, as specified in 1-3.3.2.

1-3.3.5.5 Electrical drawings

The following electrical plans and diagrams are to be submitted :

- location drawings of equipment (generators, main switchboards, distribution switchboards, emergency switchboard, etc.);
- technical characteristics of the motors and equipment for essential, emergency and vital services, as well as the technical characteristics of the generators;
- details of batteries, cables and cable trays;
- make, type and rating of switchgears, fuses and circuit breakers;
- master schematic of power distribution, lighting and emergency power circuits;
- single line diagrams of the various networks and switchboards;
- location, arrangement and of justification of safety type of all electrical equipment within high risk areas, if any, clearly indicating safety types;
- justification of sizes of conductors (temperature rises and voltage drops);
- navigation and emergency lighting systems;
- impressed current cathodic protection systems if applicable.

1-3.3.5.6 Safety drawings

The following safety plans and documents are to be submitted:

- the dedicated section of the Operating Manual related to classification as specified in 1-2.1.2.4;
- high risk areas drawing;
- ventilation systems including location of air intakes and exhausts;
- air intakes and exhaust outlets of internal combustion engines and boilers, if any;
- fire structural protection drawings, if any;
- fire detection and extinguishing systems description and drawings;

- alarm and internal communication systems description and drawings, as applicable;
- escape way and life saving appliances description and drawings.

1-3.4 Classification or certification of a type certified fishfarm

1-3.4.1 Application

1-3.2 is applicable.

1-3.4.2 Required documentation

For classification, certification of fitness and conformity or certification of fitness of a previously type approved fishfarm are to be submitted all information and documents listed in 1-3.6 for site assessment.

1-3.5 Isolated fishfarm classification or certification

1-3.5.1 Application

1-3.2 is applicable.

1-3.5.2 Required documentation

For isolated fishfarm classification, certification of fitness and conformity or certification of fitness are to be submitted all information and documents listed in 1-3.3, together with information and documents listed in 1-3.6 for site assessment.

1-3.6 Site assessment

1-3.6.1 Application

1-3.2 is applicable.

1-3.6.2 Required documentation

The following documentation is to be submitted for site approval:

- plan showing the geographical location intended for fishfarm installation;
- definition of environmental conditions to be taken into account, adapted to the type and size of the fishfarm, to its location and to the harshness of the environment; as a guidance, consideration will be given to:

- wind design data including the long term and extreme value statistics. Unless otherwise specified, the most unfavourable wind direction is to be considered to determine the effect of wind loadings.
- waves data, specified in a manner compatible with the design techniques.
- tidal range, where relevant, specified in terms of highest astronomical tide (HAT) and lowest astronomical tide (LAT). The mean water level (MWL) is herein referred to as the mean level between HAT and LAT.
- current speed, direction and velocity profiles, for both the tide and wind generated components, if specific data are available.
- extreme values of both air and sea temperatures, in terms of their highest and lowest values and associated return periods for the purpose of structural, machinery and equipment design.
- for fishfarms intended for operation in areas where ice and snow may be present, the corresponding environmental conditions and loads considered for the design.
- all information about anchoring equipment and soil behaviour, including all information not previously used within the scope of a type certification, or differing from the information given within this scope.

1-3.7 Particulars applicable to nets

1-3.7.1 Classification and type certification

Nets are beyond the scope of classification and of unit type certification, except concerning their attachment to the fishfarm structure and the loads they induce in this structure.

1-3.7.2 Certification of fitness and certification of fitness and compliance

In case of certification of fitness or certification of fitness and compliance, a documentation about nets is to be submitted enabling to identify each net through their marking, giving the date of fitting of each net and showing, if relevant, the maximum duration of use prescribed by the net Manufacturer.



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Part
**Classification
Certification
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**Tentative issue -
January 1994**

**Rules for the Classification and
Certification of Fishfarms**

Bureau Veritas Marine Branch General Conditions apply, as given at the head of our Rules.

Note: unless otherwise specified, the requirements of this chapter are applicable to units for which contracts are signed after April 30th, 1994; however, the Society may refer to the contents thereof before that date, as and when necessary or appropriate.