Glossary of “Class” related terms, abbreviations and acronyms

Acceptance Criteria
The set of values or criteria which a design, product, service or process is required to conform with in order to be accepted.

AIC Acceptance into Class
The process by which unclassed vessels – including vessels which are classed by a non-IACS member or associate – can gain classification from an IACS member. Formal submission of plans and information for design appraisal will usually be required in addition to a full survey.

Annual Survey
see Periodic Surveys

Appraisal
A synonym for assessment, evaluation, verification and review sometimes also for approval.

Approval
The examination and acceptance by the Society of documents, products, procedures, services and other items related to classification and statutory certification, verifying solely their compliance with the relevant rules requirements, or other applicable referentials.

Approved Type
Product representative of continuous production to which it is granted permission for use based upon a satisfactory appraisal.

Assess
To determine the degree of conformity of a design, product, service, process, system or organisation with identified specifications, rules, standards or other normative documents.

Audit
A planned systematic and independent examination to determine that the activities relative to a process are documented, that these activities are actually performed in conformance with what is stated in the documentation and that they are properly recorded and such as to reach contemplated objectives.

CAP Condition Assessment Program
Structural assessment program devised by the classification societies ABS, LR and DNV.

Certificate
A formal document attesting compliance of a design, product, service or process with the specified requirements.

Certificate of Registry
A document specifying the nation registry of the vessel.

Certification
Certification and auditing are recognised as a valuable approach to ensure reliable delivery of consistent products and services, while fostering
continuous improvement. Certification is based on the adherence to international statutory rules. A formal document attesting compliance of a design, product, service or process with the specified requirements.

**Class Notation**
Attestation that the relevant components and materials have been certified in accordance with the applicable rules of the classification Society for specific features.

**Class Renewal/Special Survey**
see Periodic Surveys
The class renewal surveys/special surveys include extensive out-of-water examinations to verify that the structure, main and essential auxiliary machinery, systems and equipment of the ship remain in a condition which satisfies the rules.

**Classification**
Classification means that a ship adheres to the Society’s own Classification rules, in other words - it is the appraisement of the level of compliance to the rules set up by the class society. This appraisement is represented by class marks and notations entered on a certificate and periodically transcribed in the classification society’s register.

**Remark:**
*It is not compulsory by law that a ship owner has his vessel built according to the rules of any classification society, but in practice, the difficulty in securing satisfactory insurance rates for an un-classed vessel makes it a commercial obligation.*

**Classification Society**
A classification society is an organisation that establishes and applies technical standards in relation to the design, construction and survey of marine related facilities including ships and offshore structures.

These standards are issued by the classification society as published rules. A vessel that has been designed and built to the appropriate rules of a Society may apply for a certificate of classification from that Society. The Society issues this certificate upon completion of relevant classification surveys.

**Remark:**
*There is a trend towards a shift from classification to certification societies.*

Such a certificate does not imply, and should not be construed as an express warranty of safety, fitness for purpose or seaworthiness of the ship. It is an attestation only that the vessel is in compliance with the standards that have been developed and published by the society issuing the classification certificate.

As an independent, self-regulating body, a classification society has no commercial interests related to ship design, ship building, ship ownership, ship management, ship maintenance or repairs, insurance or chartering.

In establishing its rules, each classification society may draw upon the advice and review of members of the industry who are considered experts in their field.

Classification is one element within a network of maritime safety partners, the other role is statutory certification.

The United Nations Convention on the Law of the Seas (UNCLOS) is an umbrella convention concerned with many aspects of the sea and its uses, including the granting of registration of a ship by a State.

Once a ship is registered, the flag state has certain duties laid out in UNCLOS. In particular, under Article 94, the flag state must “effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag” and take “such measures for ships flying its flag as are necessary to ensure safety at sea”.

International conventions have been agreed, setting out uniform standards to facilitate acceptance of a ship registered in one country in the waters and ports of another and in the general furtherance of safety at sea and protection of the environment. These standards are commonly referred to as “statutory” requirements. Broadly they cover three distinct areas:

- aspects of the ship’s design and its structural integrity
- accident prevention
- situation after an accident

Some or all of these may also be reproduced in particular classification societies.

**Remark:**
*There is a trend towards a shift from classification to certification societies.*
Classification Survey
A visual examination that normally consists of:

- an overall examination of the items of survey
- detailed checks of selected parts
- witnessing tests, measurements and trials where applicable

Condition of Class
see Recommendation

Conformity
Compliance of a design, product, process or service with specific requirements.

CSR Common Structural Rules
Three classification societies - ABS American Bureau of Shipping, DNV Det Norske Veritas and LR Lloyd’s Register have worked almost three years on a joint development of new rules for tanker structure - the JTP Joint Tanker Project. Another IACS group - called JBP Joint Bulker Project – has worked on the development of new rules for bulk carrier structure. When both projects were presented the two sets of rules were not technically harmonised. ABS, DNV and LR wanted to collect money from their partners in IACS for their tanker rules and IACS was facing enormous difficulties to settle the dispute. Finally IACS decided to have Common Structural Rules entering into force on 1 April 2006, but they differ in some aspects with respect to their technical approach to those that have been developed for bulk carriers.

Design
All relevant plans, documents and calculations describing the performance, installation and manufacturing of a product.

Design Appraisal
The verification and evaluation performed by a competent organisation. In general, it includes the drawings approval and may include a type test witnessed by an inspector. A design appraisal can also be an independent review against the requirements of a code, standard or specification. Design appraisals can help to streamline the design and construction process, improve safety and performance and identify critical areas and provide the basis for through-life maintenance.

Design Approval
The process whereby permission is granted for the design to be used for a stated purpose under specific conditions. It comprises design appraisal and validation, as applicable.

DIN 50049 Certificates
see Mill Test Certificates

DOC Document of Compliance
(ISM Code) Certificate provided by the Administration stating that the Owner/Management complies with the ISM Code.

Documentation
The whole written data (including drawings, procedures, specifications, etc.) necessary to describe a design, a process, a product or a service.

EMSA
Established 2005 by DG TREN in the aftermath of the Erika disaster, this Agency provides technical and scientific advice to the Commission in the field of maritime safety and prevention of pollution by ships via: the continuous process of evaluating the effectiveness of the measures in place; providing assistance in updating and developing new legislation and monitoring its implementation. Some of the key areas where the agency will provide such assistance to the Commission are:

- strengthening the Port State Control PSC
- assessing the Community-recognised classification societies and
- the establishment and management of a Community vessel traffic monitoring system

ESP Enhanced Survey Program
The ESP applies to bulk carriers, tankers and chemical tankers. It has been reinforced by requiring Intermediate Surveys with an extended scope, matching that of the preceding Special survey (including dry docking or underwater survey, as applicable) for ships exceeding 15 years of age.
EN 10204 Certificates
see Mill Test Certificates

ESP Enhanced Survey Program

EurACS
EurACS is the association representing the classification societies being members of IACS having head offices in European countries. EurACS’ objective is to be the contact for the European Commission and the EU maritime industries on research and development with the purpose of improving maritime safety and the protection of the environment.

EurACS has the chair of the strategic Planning group of the MIF Maritime Industries Forum and of Waterborne TP.

Members of EurACS: BV, DNV, GL, LR, and RINA

The question arises why PRS (Poland), HRS (Greece) and CRS (Croatia) are excluded from EurACS.

Examination
Assessment by a competent person to determine compliance with requirements.

Final Test
The whole of tests performed to accept a material, product, equipment or plant.

FOC Flag of Convenience
The registration of a ship in a State whose tax on the profits of trading ships is low or whose requirements concerning manning or maintenance are not stringent. Sometimes referred to as flag of necessity; denotes registration of vessels in foreign nations that offer favourable tax structures and regulations; also the flag under the law of one nation, it is not always required to establish the home location in that country.

Remark:
Some FOCs are tiny countries with a few thousands inhabitants like St. Vincent & Grenadines, Cayman Islands, Nauru, Marshall Islands, others are landlocked like Luxembourg. They are nearly always delegating their obligations to ROs: classes, agencies ...

Flag of Necessity
see Flag of Convenience

Flag State
Flag State refers to that authority under which a country exercises regulatory control over commercial vessels registered under its flag. This involves the inspection, certification, and issuance of safety and pollution prevention documents.

FSA Formal Safety Assessment
Study of risks which should improve the design of ships, and also their actual maintenance.

Goal-based Principles
• the goals should aim to ensure that a properly operated and maintained ship remains safe for her whole life
• the goals should be demonstrable, verifiable, long-standing and flexible in order to encourage technology innovations
• the goals should be achieved either by compliance with rules or by means of alternative solutions providing an equivalent level of safety
• the rules developed and applied by shipyards and classification societies should include criteria to demonstrate and measure the achievement of goal-based standards.

GBS Goal-based Standards
Goal-based standards in shipping were proposed to IMO a number of years ago by the Bahamas and Greece supported by other administrations as the basis for developing ship construction standards that would permit innovation in design but ensure that ships were built in such a manner that, if properly maintained, they could remain safe for their economic life. Goal-based regulations do not set out the means of achieving compliance, but set standards which allow alternative ways of reaching the goal. IMO will take over the detailed work but they will state what has to be achieved. Class societies, ship designers, naval architects, marine engineers and builders will retain the freedom to decide on how best to achieve those goals.

IACS has decided to move from unified requirements to common classification rules for new buildings,
focused as first priority on the hull scantlings of new double hull tankers and bulk carriers.

All goal-based standards are currently being discussed for hull structures, but they should be applicable for any part of a ship or system on board.

Goal-based standards can be defined as a multi-tier approach, where the first tier represents general safety objectives, the second tier functional requirements applicable for each ship type and the third tier relevant goal based verification criteria.

To put it in a more prosaic wording: Goal-based standards will be aiming at moving

• from mistrust to trust
• from a culture of compliance to a culture of benchmarking
• from prescriptive to functional /risk/ goal-based standards
• from a complex to a more rational set of rules and regulations
• from given solutions to goals that can be achieved by alternative designs, promoting innovation of technology

Ugo Salerno, RINA

IACS

IACS can trace its origins back to the Load Line Convention of 1930 and its recommendations. The convention recommended collaboration between classification societies to secure “as much uniformity as possible in the application of the standards of strength upon which freeboard is based”.

IACS in its today structure was formed by seven leading societies on 11 September 1968. Current members are ABS, BV, CCS, DNV, GL, KR, LR, NK, RINA, and RS with three associated members – Croatian Register of Shipping, Indian Register of Shipping and Polish Register of Shipping. IACS had expelled the Polish Register of Shipping in a council decision that followed the loss of the bulk carrier Leader L in March 2000, citing “serious managerial shortcomings” on the part of the PRS. This followed the temporary suspension of the PRS in 1997.

PRS was re-admitted subsequently as an associated member. RINA should have experienced at least the same fate because of the Erika disaster, but managed to remain a member of the association.

IACS was given consultative status with IMO, in 1969, with the first Permanent Representative appointed in 1976. It remains the only non-governmental organisation with observer status which is able to develop and apply rules. The status of the standards developed by member societies was enshrined in the International Convention for the safety of Life at Sea (SOLAS). A permanent Secretariat was formally established in London in 1992.

IACS Charter

• to work towards the improvement of standards of safety at sea and the prevention of pollution of the marine environment
• to provide for communications and co-operation with relevant international and national organisations
• to co-operate closely with the marine industries of the world

IACS Code of Ethics

It states, inter alia:
“Classification Societies live on their reputation. Acceptance of their work can only be maintained by continuously proving integrity and competence” and “Competition between Societies shall be on the basis of services (technical and field) rendered to the marine industry but must not lead to compromises on safety of life and property at sea or to the lowering of technical standards”

IACS Members have been found to meet Resolutions A.739(18) and A.789(19) by all of the Administrations (approximately 100) that are Parties of SOLAS.

IACS Initiatives

• TOCA Transfer of Class Agreement
• ESP reinforcing the Enhanced Survey Program
• Introduction of unified scantling standards, for both bulk and oil tankers
• TOMS Transfer of Management Systems procedures
IACS Membership
Member status requires compliance with the following minimum conditions:

- 30 years as a classification society with own rules
- classed fleet of not less than 1500 ocean-going vessels (over 100gt) with an aggregate total of not less than 8 million gt.
- professional staff of 150 exclusive surveyors and 100 technical specialists all of whom should be qualified and trained in accordance with IACS procedures
- possession of a valid IACS Quality System Certificate of Conformity
- Observance of the Code of Ethics

IACS Policy

- to provide leading technical expertise
- to communicate with the industry to
- to share the lessons learnt
- to be responsible for what IACS share of responsibility is

IACS Working Parties, permanent

- Fire protection and safety
- Subdivision, stability and load lines
- Strength
- Materials and welding
- Survey, reporting and certification
- Machinery
- Electricity

ILO International Labour Organisation
Based in Geneva, ILO is one of the oldest organisations of the UN system of specialised Agencies and has been involved over the years in appraising and seeking to improve and regulate conditions of seafarers.

Major issues dealt with by ILO:

- employment of foreign seafarers
- application of minimum labour standards
- crew accommodation
- medical examination and medical care
- food and catering
- officer’s competencies

ILLC International Load Line Certificates
A certificate which gives details of a ship's freeboard and states that the ship has been surveyed and appropriate load lines have been marked on her sides. These certificates are issued primarily by classification societies and/or coast guards.

IMO
The International Maritime Organisation promotes cooperation among governments and the shipping industry to improve maritime safety and to prevent marine pollution.

The purposes of IMO, as summarised by Article 1(a) of the Convention, are “to provide machinery for cooperation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships”. The organization is also empowered to deal with administrative and legal matters related to these purposes.

IMO was established by means of a convention adopted under the auspices of the United Nations in Geneva on 17 March 1948. It has more than 160 members and the European Commission has an observer status at the IMO. It proposed the adhesion of the EU to the International Maritime Organisation, in April 2002, to reinforce the European contribution to the development of international policy on maritime safety.

Inspection
Examination of a design, product, service or process by an inspector in order to ascertain their compliance with specified codes, standards or specifications.

Inspector
A person competent to perform inspections.

Intermediate Surveys
see Periodic Surveys and ESP
ISM Code
The International Safety Management Code was adopted in 1993. It became mandatory for passenger vessels, oil tankers, chemical tankers, bulk carriers, and high speed cargo ships of 500 gt or more.

Remark:
Unfortunately the aim of the regulation had mainly been diverted from its initial purpose to become a clerical business opportunity of its own.

ISP Code

Load Lines
Commercial ships have a symbol called load line painted on each side of the ship. This symbol, also called Plimsoll line, marks the level to which the ship can be safely loaded.

International Convention on Load Lines, 66/68

Maintenance
It is the owner’s responsibility to ensure proper maintenance of the ship until the next survey required by the rules.

Marine Insurance
Covering loss and damage at sea. Marine insurance typically delegates the owner of merchandise for losses sustained from fire, shipwreck, etc. but excludes losses that can be recovered from the carrier.

Marine Product
A product that has been designed, constructed and tested for use in a marine application.

Manufacturer
The company that produces and/or assembles the final product, and takes the whole responsibility of the final product.

Maritime Administration
An autonomous authority for the supervision of the prime maritime services like safety and shipping in territorial waters, and ports. Closely linked to the Government sometimes operating the coast guard.

Maritime Authority
see Maritime Administration

MARPOL

Usually known as MARPOL 73/78, this is a set of regulations aimed at preventing pollution by oil, chemicals, noxious substances, garbage and sewage water.

Materials
Raw materials that will require further forming or manufacturing before becoming a product.

Material Test Certificates
see Mill Test Certificates

MED Marine Equipment Directive;
Wheelmark Directive
Council Directive 96/98/EC as amended
With the view to harmonise standards for the design, construction and acceptance procedure for the items of equipment referred to in SOLAS and MARPOL, the European union has developed with the help of the industry, classification societies – Bureau Veritas in the forefront – and the Member States, the Marine Equipment Directive MED.

The MED covers statutory equipment carried and used on ships registered under the flags of the European Union Member states plus Norway and Iceland, which are required to meet the 4 International Conventions developed by the International Maritime Organisation IMO namely:

- Load Lines 1966
- SOLAS 1974  Life-savings Appliances
- MARPOL 1973  Marine Pollution
- COLREGS 1972  Prevention of Collisions

Under the procedures defined in the Med, once an approval has been obtained for the equipment
referred to in the Directive by a single “Notified Body”, this approval will be acceptable in all other Member States.

Recognition that the equipment fully complies with the requirements of the MED will be denoted by a “Ships Steering Wheel”.

**MED Type Approval**

All certificates issued by a Society/ Notified Body for products in compliance with the European Directives 96/98/EC and subsequent amendments are considered equivalent to type approvals and production certificates.

**Member State(s)**

While the European Union has its long awaited mandate to negotiate on behalf of its Member States on air transport matters, the maritime authority in Europe still lies with the Member States and their national maritime administrations.

**MEPC**

Marine Environment Protection Committee, a major committee within IMO.

*Remark:*

*The number of the meeting is often added to the acronym.*

**Mill (Material) Test Certificates EN 10204 formerly DIN 50049**

Documents issued by the manufacturing plant

- Certificate of Compliance
  EN 10204 2.1/DIN 50049 2.1

- Test Report
  EN 10204 2.1/DIN 50049 2.2

- Specific Test Report
  DIN 50049 2.3

Documents issued by experts of Recognised Organisations

- Inspection Certificate
  EN 10204 3.2/DIN 50049 3.1 A

- Inspection Certificate
  EN 10204 3.1/DIN 50049 3.1 B

- Inspection Certificate
  EN 10204 3.2/DIN 50049 3.1 C

Surveyors of different classification societies request different EN 10204 certificates from the manufacturers. This is unfair and gives some companies a significant cost advantage while discriminating others.

**MSC Maritime Safety Committee**

A major committee within IMO.

**Mutual Recognition**

Result of an agreement between two or more bodies who consider that an approval or a certification granted by one of them, under specific conditions, is applicable for the other(s).

**National Flag**

The flag carried by a ship to show her nationality.

**Notified Body**

An Organisation authorised by the competent National Administration of an European Community Member State to perform certification activities on their behalf.

**Open Register**

A term used in place of “Flag of Convenience” or “Flag of Necessity”. A register that is open to foreign shipowners.

**Performance Test**

A technical operation where a specific performance characteristic is determined and recorded.

**P&I Protection & Indemnity**

A P&I Club is a unique organisation in that it operates as a mixture of an insurance company, a law firm and a loss adjuster. This means that a P&I Club is able to assist a ship owner in dealing with every aspect of a casualty from finding experts and contractors to deal with the immediate casualty through to legal advice and paying claims. The P&I Club exists in order to help the ship owner and pay his liability claims.

**Periodic Surveys**

Each classed vessel is subject to a specified program of periodic surveys, an intermediate survey and a class renewal/special survey (held every 5 years). The rigor of each specified survey increases with the age of the vessel.
**PSC Port State Control**
The Inspection of foreign ships in national ports for the purpose of verifying that the condition of a ship and its equipment comply with the requirements of international conventions and that the vessel is manned and operated in compliance with applicable international law.

On the basis of an EC Directive, all EU Coastal States are obliged to inspect at least 25% of all foreign ships calling to their ports. If a substantial number of deficiencies is found, the ship will be detained until the necessary repairs have been carried out.

**Recognised Classification Societies**
The European Union recognises 13 European and non European Classification Societies:

- American Bureau of Shipping (ABS)
- Bureau Veritas (BV)
- China Classification Society (CCS)
- Det Norske Veritas (DNV)
- Germanischer Lloyd (GL)
- Hellenic Register of Shipping (HRS)
- Korean Register of Shipping (KR)
- Lloyd’s Register (LR)
- Nippon Kaiji Kyokai (NK)
- Polish Register of Shipping
- Registro Italiano Navale (RINA)
- Registro Internacional Naval (Rinave)
- Russian Maritime Register (RS)

**Recognised Organisation RO**
SOLAS and the other International Conventions permit the Flag State Administration to delegate the inspection and survey of ships to a Recognised Organisation.

IMO Resolution A.739(18) lays down minimum standards for ROs. Fundamentally it requires the organisation to demonstrate its technical competence and to be governed by the principals of ethical behaviour. The RO should be subject to the certification of its quality system by an independent body of auditors accepted by the Administration. Together with IMO Resolution A.789(19), which presents specifications on the survey and certification functions of ROs, these resolutions provide the criteria and framework to which a flag must be satisfied that their RO’s meet.

The RO is responsible and accountable to the Flag administration for the work that it carries out on its behalf. The principles of the inspection and survey work are the same as in respect of classification surveys, that is the verification by the RO that the ship is in compliance with applicable requirements at the time of the survey. The scope of these inspections and surveys regarding safety and pollution are laid down by the Flag administration in compliance with the relevant international conventions to which it is a signatory. The RO is responsible and accountable to the Flag Administration for the work that it carries out on its behalf.

**Recommendation**
Recommendation and Condition of Class are synonymous terms used by IACS societies for requirements that specific measures, repairs, request for survey, etc. are to be carried out by the owner within a specified time period in order to retain class.

**Renewal of Type Approvals**
Type approvals have to be renewed every 5 years. Regardless whether there were any modifications or not to that submitted for the previous approval, the certificates have to be renewed every 5 years. This creates a reasonable repeat business for the classification society and is a cost factor the manufacturer.

**Register**

**Regulation**
The term “Regulation” is commonly linked to statutory equipment standards

**Rule**
The term “Rule” is commonly linked to standards of the classification societies.

**Scantlings**
Dimensions of Ship’s structural members/components e.g. frame, beam girder etc.

**Self Inspection**
Inspection delegated to the manufacturer, provided some conditions are fulfilled: in
particular, works and quality system are approved, and respective responsibilities are identified.

**Self Regulation**
Classification societies are somehow unique as they are self issuing and self executing regulations and guidelines.

**Services**
Major services by classification societies are:

- Approvals
- Certification
- Classification
- Inspection
- Construction Survey
- Consultancy
- Design Appraisal
- Testing and Witnessing

Classification societies act as providers of services. This cannot be construed as an obligation bearing on the society to obtain a result or as a warranty. Any delay or shortcomings in the performance of the society’s services arising from an event not reasonably foreseeable by or beyond the control of the society is deemed not to be a breach of contract.

**SMC Safety Management Certificate**
(ISM Code) Certificates stating that the ship has a Safety Management System.

**SMS Safety Management System**

**SOLAS**
The International Convention for the Safety of Life at Sea (SOLAS) is the most important treaty protecting the safety of merchant ships.

**Specification**
Technical data/particulars which determine the design and/or manufacturing and testing procedures and define the quality requirements

**Standards**
A standard is a guideline document that reflects agreements on products, practices and operations by recognised government, industry or professional bodies or trade associations. The list below shows the most common national and international standards which classification societies assess against:

- AS 9100
- HACCP
- ISO/IEC 27001
- ISO/IEC 20000-1
- ISO 13485
- ISO 14001
- ISO 9001
- ISO/TS 16949
- ISO/TS 29001
- ISO 22000
- QS-9000
- OHSAS 18001
- IRIS

**Statutory Work**
- Marpol 73/78
- SOLAS
- ISM
- Load Lines; ICLL 66/68
- TC 69
- AFS-C
- ISSC ISPS code

**STWC International Convention of Training, Certificates and Watchkeeping of Seafarers.**

**Surveillance**
The process of monitoring a product, procedure or service to ensure it continues to conform with the approved criteria.

**Survey**
An activity carried out by a surveyor with free and random access to building facility at defined or occasional intervals, consisting of one or more inspections and/or surveillance to verify the compliance of a product, design, service, process or plant (including ships, or offshore installations or parts thereof) with specific requirements.

**Surveyor**
A competent person – appointed by the Society – to perform surveys.

**Suspension of Class**
A ship loses her class temporarily
Test
A technical operation that consists of the determination of one or more characteristics or performance of a given product, material, equipment, organism, physical phenomenon, process or service according to a specific procedure.

TOC Transfer of Class
It is possible to transfer a ship from one classification to another during the lifetime of a ship. Depending on the current class status of the vessel, various procedures exist to achieve a smooth transition to the new class.

TOCA Transfer of Class Agreement
The IACS Transfer of Class Agreement’s objective is to allow for traceability of ship’s class and to prevent owners “class hopping”. It was reinforced by requiring the “gaining society” in a class transfer to perform a special survey or intermediate survey (whichever is due next) for ESP ships of 15 years and over. TOCA requires the transfer of the ship’s classification survey history to the gaining society.

TOMS Transfer of Management Systems
Type Approval
The process at the end of which a Type Approval certificate is issued. It applies both to products for which the type approval is required by rules, or to products, for which the type approval is required by rules, or to products, for which there are no specific requirements on classification rules, but the type approval certificate is requested by the manufacturer on a voluntary basis.

There are five stages to gain a type approval:
- review of the design data submitted by the producer to establish that the design complies with specific codes or specifications
- witness tests on a representative sample
- production controls
- issue of a type approval, valid for five years
- entry into the list of type approved products

There is a wide range of products for use in marine and offshore applications and growing international awareness of the importance of third-party certification.

Unified Requirements (IACS)
UR Unified Requirements are adopted on matters directly connected to or covered by specific Rule requirements and practices of classification societies and the general philosophy on which the rules and practices of classification societies are established. Subject to ratification by the governing body of each Member Society and Associate. Unified requirements shall be incorporated in the rules and practices of the Member Societies and the associates, within one year of approval by the IACS Council.

The existence of a UR does not oblige a Member Society or an Associate to issue respective Rules if it chooses not to have Rules for the type of ship or marine structure concerned.

Unified Requirements are minimum requirements. Each Member and Associate remains free to set more stringent requirements.

US Coast Guard
Recognised Organisations and Classification Societies
The US Coast Guard’s requirements for the recognition of an organisation or a classification society are more stringent than those of other administrations.

Among others the USCG criteria request the following:
- not to be under the financial control of ship owners or shipbuilders, or of others engaged commercially in the manufacture, equipping, repair or operation of ships
- not be financially dependent on a single commercial enterprise for its revenue
- not have any business interest, or share of ownership of, any vessel in its classed fleet
- not be involved in any activities which could result in a conflict of interest
Underwriter
A person or institution that insures a ship or its cargo against damage or loss. An underwriter assesses the level of risk and calculates the premium to be paid.

Validation
The last step in the design process to verify the effectiveness of the design to fulfil the established purpose. Usually, this is made by re-check of drawings and calculations and/or by prototype extensive testing (even destructive tests, if necessary) carried out by a person not having been involved in the design performance or in the normal routine inspection.

Withdrawal of Class
A ship loses her class permanently

Witness
To be present at the test and to be able to give evidence about its out come.