

Commission's "proposal for a directive of the European Parliament and of the Council on common rules and standards for ship inspections and survey organisations and for the relevant activities of maritime administrations", com (2005) 587 final.



## Summary

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# 1. Introduction.

The **European Marine Equipment Council (EMEC)** represents the **European marine equipment industry**. The undertakings active in this important field, many of which are SMEs, are responsible for supplying all products and services for the building, conversion, and maintenance of ships (seagoing and inland). This includes technical services in the field of engineering, installation and commissioning, and ship maintenance (including repair). These products and services represent up to 70% of the value of a ship.

Industries represented by **EMEC** are **world leaders** in many of the activities described above. They are responsible for **262,000** jobs directly and **436,000** indirectly, **qualifying as the most important employer in the maritime industry**. They generate a turnover of **26 billion Euro**, 12 billion of which relate to the export market, contributing to European economic growth. As a modern, competitive, knowledge based industry, the marine equipment industry contributes to the achievement of the goals set by the **Lisbon Strategy**, playing also a fundamental role in ensuring that **maritime transport** is carried out **safely** and **respecting the environment**.

**EMEC welcomes the Commission's Proposal for a European Directive establishing "common rules and standards for ship inspections**

**and survey organisations and for the relevant activities of maritime administrations", and encourages the European Parliament and the Council to go further in the direction indicated by the Commission, by introducing the amendments necessary to ensure that the objectives defined in the Proposal will be achieved in accordance with a certain and predefined time frame.**

The Proposal, particularly Article 20 paragraph 1, will pave the way for the long awaited **harmonisation of technical rules** applicable to marine equipment and the **mutual recognition of certificates** issued by Recognised Organisations of EU Member States. Once a limited number of technical amendments will be introduced, with a view to define a clear time frame for the implementation of harmonisation and mutual recognition of standards and certificates, the Proposal will guarantee the **application of the fundamental principles of the internal market**, which represent the core of the EC Treaty, **to the marine equipment sector**. At the same time, it will promote the setting of common standards to guarantee that marine equipment produced in Europe, and/or deployed on ships sailing in European waters, comply with the highest level of **safety and environmental protection**.

**The absence of a clear and harmonised set of technical rules at the European level** is creating a **serious harm** to the **competitiveness** of the European marine equipment industry. **This is even less acceptable, if we consider that the main objective of the European Union is to ensure that economic operators can take benefit of a genuine internal market, where barriers to trade are eliminated and competition is not distorted. In spite of elementary EC law principles, which are valid for any other industry,** providers of marine equipment are forced to adapt to the different technical regulations established by the Recognised Organisation operating in the 25 Member States, and to repeat lengthy and costly certification processes (sometimes up to ten for the same piece of equipment) before placing their product on the market. **This fragmented and inefficient system, based on rules established autonomously by private organisations does not generate any added value for safety and environment** (compliance with one standard, the highest, would be the best solution). On the contrary **it subtracts important resources (5 to 6 % of the turnover of the sector) from investments in research and development, which would greatly help to increase safety of maritime and inland navigation.**

In the light of the foregoing, EMEC states its support for the **Commission Proposal**, and encourages the European Parliament and the Council of the European Union to agree on its approval, eventually adopting any amendment which may secure the achievement of the objectives pursued by the Proposal.

# 2. The Commission's Proposal.

EMEC welcomes the Commission's Proposal since it promotes the harmonisation of class rules throughout Europe and favours the accomplishment of a true Internal Market for ship parts and equipments and the certificates related to those parts and equipment.

At present, ship safety regulations (i.e. the set of rules governing the production of ship parts) can be divided in two main categories:

## **1. Rules aiming at preventing danger to life and environment:**

These rules are mainly defined at the national level. Member States legislate, in their capacity of flag states and port states, in order to regulate building and operations of ships. Given the technical complexity of the sector, most flag states (and their national maritime authorities) delegate some rule-making powers to Classification Societies, given their high technical competence.

The main Classification Societies have established a common body, IACS – International Association of Classification Societies – with the purpose to make class requirements more uniform in key safety-related areas. This process is ongoing but it is progressing at a slow pace and need to be driven by clear and binding legal obligations.

At the international level, national maritime authorities participate in the International Maritime Organisation (IMO), a UN agency which gives recommendations to members on issues on safety and environment. IMO has an important role in setting international standards for maritime transports. These rules often do not have the same force and unity in application that EC regulations have.

The EU-Commission issue directives on maritime matters, mainly related to safety and environment, for instance the Marine Equipment Directive (MED).

## **2. Rules aiming at improving the design and construction of the ship**

These rules cover the standards for design and construction and are mainly developed by each Classification Society individually (Class Rules). Each Classification Society adopts its own standards covering design, construction and maintenance on hull and equipment to be installed on board.

Class Rules cover the structural aspects of the ship (such as strength or stability and buoyancy), machinery (engines, steering gear, etc), equipment to be fitted on board, and also certain operational aspects (e.g. life-saving equipment, equipment for special cargoes such as on oil tankers and chemical tankers).

These two categories of rules have steadily been developed according to the increased knowledge base of the Classification Societies, and are – therefore – a highly valuable contribution to the codification of the technological progress of the whole industry. Classification Societies, acting as ROs on behalf of Member States are playing a key-role in the development, implementation and application of rules and regulations for ship operations.

They are now on the verge of entering into a new area where use of systematic risk and safety assessment would provide decision support for a more holistic perspective on safety regulations at sea. As use of risk assessment techniques will become more widespread, this should drive IACS and IMO to set overall safety goals for classification standards. Meeting overall safety goals will require more collaboration among class societies in order to define harmonised standards. This process is vital for both the increase of safety standards and the competitiveness of European industry and its capacity to innovate. However, it cannot be driven only by market forces: as the level of harmonisation is lagging behind in Europe, a legislative intervention is needed to give a strong impulse to regulators at the national level. EMEC believes that the Proposal is a fundamental step in this direction.

Article 20 (1) of the Proposal states as follows.

### Article 20

1. The recognised organisations shall consult with each other periodically with a view to **maintaining equivalence of their technical standards rules and regulations and the implementation thereof.**

They shall cooperate with each other with a view to **achieving consistent interpretation of the international conventions**, without prejudice to the powers of the flag States. Recognised organisations shall agree on the conditions under which they will **mutually recognize their respective class certificates based on equivalent standards**, taking particularly into account marine equipment bearing the wheelmark in accordance with Directive 96/98/EC<sup>12</sup>.

They shall provide the Commission with periodic reports on fundamental progress in standards and mutual recognition.

The provision quoted above, **provided that a few amendments are introduced to strengthen and clarify the language**, can significantly improve the currently regulatory framework, ensuring at the same time that applicable rules follow the highest standard for safety and environmental protection.

**Far from imposing automatic mutual recognition, it is meant to start an industry driven process that will lead recognised organisation to define (according to their best knowledge) a high and universally applicable standard for marine equipment.**

EMEC believes that the provision will have a positive impact on the whole industry: equipment producers will be able focus their resources on research and development of materials and parts, rather than seeking certifications from several ROs for the same components.

ROs, in turns, will increase their efficiency and competitiveness, since they will need to provide services to shipyards and equipment manufacturers on a one-off basis (manufacturers shall be able to choose, once and for all, which RO will certify their parts).

**Competitiveness and maritime safety** (i.e. the general interest of European Union) will ultimately benefit from this process.

Against this background it is necessary to point out clearly that no issue should be raised in relation to the liability of the RO for recognising certifications of parts and materials issued from other ROs. Each RO shall be held liable solely and exclusively in relation to the parts that it certifies. Therefore, in case of a ship built with parts certified by more than one RO, it will be possible than more than one RO will be responsible. In no case a RO should assume the liability for the fault of another RO in issuing a certificate for a part.

# 3. The current regulatory framework.

Class rules are today devised by individual Classification Societies acting as ROs on behalf of the Member States. Class rules cover both the structural aspects of the ship and all the equipment to be fitted on board. When a RO has been selected for the classification of a ship, it will at the same time be responsible for certification of all equipment to be fitted on board according to its specific rules.

ROs apply their individual technical rules and regulation, as part of their competitive profile. As a consequence equipment manufacturers have to have their products approved by all ROs that will classify ships to which they are supposed to deliver equipment. **This means that, in many cases, manufacturers will need to comply with as many as ten different set of rules in order to obtain certificates from each RO for the same single product.** This process requires marine equipment industry to devote important resources for the sole purpose of obtaining certifications. The economic impact on the industry is absolutely relevant: following several certification procedures for the same parts may imply workloads in the magnitude of 15-30 000 hours.

These resources could be used for investment in research and development of newer and more efficient products.

EMEC strongly believes that this a system that does not add value or safety to the industry or the operation of the ships, since – to a high degree – classification rules are based on the same standards. In most cases the performance of the product is not changed, and in many cases the products under different certificates are identical.

## *One concrete example: Crankcase explosion relief valves.*

What follows is an example of the different class rules that are applicable to the same part of equipment. It is clear that the rules below are based on the same standard. However, a European manufacturer had to obtain 11 certificates for the same product!

## Free relief area

- Class A:** The explosion relief valves are to be of the return-seating type, are to **relieve the pressure readily** at not more than **0.2 bar** (0.2kgf/cm<sup>2</sup>, 2.85lb/in<sup>2</sup>), and are to **close quickly in order to prevent an inrush of air.**
- Class B:** The safety devices are to be of a quick acting and self closing type. In service they must be oil tight when closed and **must prevent air from flowing into the crankcase.**
- Class C:** The valves are to be designed and constructed to **open quickly at a pressure not greater than 0,02 MPa** and to **close quickly** and automatically **in order to avoid an inrush of air in the crankcase.** The relief valves are to be of the spring-loaded type capable of quickly relieving the overpressure in the event of an internal explosion and closing immediately thereafter to prevent any inrush of air.
- Class D:** The crankcase safety valves shall be designed and built to **open quickly at an overpressure of not more than 0.2 bar in the crankcase** and to close quickly and automatically **in order to avoid inrush of air into the crankcase.**
- Class E:** They are to be so constructed as to **close quickly** after the outflow of gas and **to prevent any inrush of air thereafter.** The valves are to be designed to **open at a pressure not greater than 0.02 MPa.**

## Warning notice

- Class A:** n.a.
- Class B:** n.a.
- Class C:** n.a.
- Class D:** A **warning notice** shall be fitted **on each side of the engine.** This warning notice shall specify that, **whenever overheating is suspected within the crankcase, the crankcase doors or sight holes are not to be opened before a reasonable time, sufficient to permit adequate cooling** after stopping the engine.
- Class E:** A **warning notice** is to be fitted on a prominent position, preferably on a crankcase door **on each side of the engine,** or alternatively at the engine room control station. This warning notice is to specify that **whenever overheating is suspected in the crankcase, the crankcase doors or sight holes are not to be opened until a reasonable time** has elapsed after stopping the engine, **sufficient to permit adequate cooling** within the crankcase.

The lack of harmonization of technical rules brings even more absurd and harmful consequences, as it is explained below.

### *3.1 Multiplication of certificates on materials*

The impact for manufacturer of materials is also relevant: materials are delivered with a certificate issued by the material-manufacturer stating technical and chemical characteristics of the product. However, in the absence of any harmonisation at European level, each RO still requires certifying the single piece of material, normally just confirming the characteristics already stated by the manufacturer.

As the ROs normally are not accepting each others material certificates and as equipment manufacturers deliver their products and systems to different ships, the manufacturers have to buy and stock materials certified by the different CS to be prepared to handle orders for ships classified by different ROs.

As it is proposed by the Commission, ROs should be encouraged to establish a set of common or compatible rules for specific products and materials. These regulations, and all relevant international conventions, should be interpreted and applied in a uniform manner.

Compatibility between the technical rules and regulations should logically lead as proposed by the directive to the genuine mutual recognition of class certificates for marine equipment.

Such a regime would reduce the cost of the European marine equipment industry and strengthen their competitive position. Further a set of standard rules should increase safety as efforts would be concentrated on the quality of the product and the manufacturing process in contrast to the non productive work which is spent to day on producing documentation for the different paragraphs of the ROs.

### *3.2 Technology drain and problems related to IP rights*

European equipment manufacturers are world leaders in innovations within the maritime sector. In the process of design and type approvals and surveys at manufacturing sites and on board ships, the ROs collect and accumulate a lot of sensitive technical information of generic kind and about products and processes of the equipment industry. The ROs have direct access to this knowledge-base through their classification and certification work. In this process, drawings and calculations have to be submitted from industry to the ROs containing data on the state of the art.

Especially when companies develop new solutions or products, these solutions are often incorporated into the class rules with the consequence that competitors – mainly from third countries – might have access to these at no cost. Further the ROs are in prime position by their regular re-classification of sailing ships to observe the quality and functionality of the individual product. This experience base is invaluable.

In addition to the loss caused by the quantity of sensitive information that is passed on to competitors during the (several) certification processes undertaken by manufacturers, further technology drain derives from the fact that most ROs perform consultative work. Their knowledge-base is – for a significant part – acquired by the classification and certification work performed by the CS.

**The elimination of any unnecessary certification process would help manufacturers to protect their sensitive information and to preserve their know-how.**

# 4. The regulatory frameworks in other transport industries.

As it will be clarified below, **the marine equipment industry is the only sector (within transport equipment industry) to suffer from lack of harmonisation at the European level.** In all other sectors, standards and regulations are being progressively harmonised. This allows European industry to compete on a more advantageous basis with American and the emerging Asian industry. EMEC supports the Proposal from the Commission, and its Article 20 (1), insofar as it promotes the process of harmonisation of standards throughout Europe, and favours those industries which – by investing in research and innovation – can satisfy the highest requirements for safety and environmental efficiency.

## 4.1 *The aviation industry*

The aviation industry has many similarities to the marine industry. International regulation is established by the International Civil Aviation Organisation (ICAO). ICAO issues standards which states are required to comply with. In 2003 the European Union members created European Safety Agency (EASA). ICAO recognises the Commission' role as a 'state' for the purposes of certification. The same would be the case for the Federal Aviation Administration (FAA) in the US.

Through the last 20 years EASA or JAA (Joint Aviation Authorities in Europe) have worked with FAA to ensure that their technical codes are closely "harmonised". Other authorities may choose to find compliance with their own technical requirements or to accept either the EASA or FAA type certificate.

Most European nations, whether part of the EU or not, are now working to the same codes. These codes are largely harmonised with those of the US and Canada. Technical/working arrangements exist with other countries based on Bilateral Aviation Safety Agreements (BASA). BASAs effectively recognise systems for certification of products and organisations.

Through cooperation, EASA and FAA to seek to foster harmonisation of requirements and procedures with other safety regulatory authorities, world-wide implementation of harmonised safety standards and requirements through the conclusion of international arrangements.

EASA further adopt measures to ensure that pursuance of the safety objective does not unreasonably distort competition between the aviation industries of Member States or place companies of Member States at a competitive disadvantage with companies of non Member States.

## 4.2 *The automotive industry*

The car industry operates with a set of international standards. Rules and regulations are given by EU, by US government, FMVSS (Federal Motor Vehicle Safety Standards) or by UN.

Within the EU, rules and regulations have been harmonized through about 50 EU-directives. Any car to be sold within EU has to be type approved by a national authority in EU. Car part manufacturers have to have their items CE-approved and marked before.

The supplier will have the responsibility through his manufacturing system to ensure/guarantee that items are manufactured according to specifications and hold required minimum standard. Items to be delivered to EU-manufacturers have to be CE-marked. By this, the manufacturers state that the product comply with EU-directives.

In the US the National Highway Traffic Safety Administration has a legislative mandate to issue Federal Motor Vehicle Safety Standards (FMVSS) and Regulations to which manufacturers of motor vehicle and equipment items must conform and certify compliance.

In the industry a needed harmonization between EU and US standards is regarded as a next major step.

### *4.3 The railway industry*

In Europe the railway industry is regulated through European Railways Agency (ERA) and through national authorities.

As part of its common transport policy, the Community has adopted legislation to pave the way for gradual establishment of an integrated European railway area, both legally and technically. This involves the development and implementation of Technical Specifications for Interoperability and a common approach to questions concerning railway safety. The Agency's main task is to manage the preparation of these measures.

ERA's Safety Certification and Authorisation deals with the harmonization of decision-making criteria for the processes for safety certification of railway undertakings and safety authorisation of infrastructure managers. The Safety Directive and the Agency Regulation recommendations to the European Commission have to be drafted on:

- \* The development of harmonised application formats and guidance documents in connection with harmonising the requirements for the national part of the safety certificate;
- \* The drafting of harmonised formats for safety certificates;
- \* The development of a common safety method to assess conformity of the safety certificates with the requirements in the Safety Directive, and
- \* The evaluation of the development of the certification processes and practices to develop a migration strategy towards a single Community certificate.

To guarantee sector wide acceptance of the work the Agency has set up a Working Group on Safety Certification and Authorisation with members from the National Safety Authorities as well as from the main organisations of the railway sector, who are discussing the drafts and participating in the elaboration of the recommendations.

# 5. Conclusions.

In the light of the previous paragraphs, EMEC would like to invite the European Parliament and the Council to support the Commission Proposal for a Directive on common rules and standards for ship inspections and survey organisations and for the relevant activities of maritime administrations”, introducing those amendments which are necessary to strengthen the obligation, enshrined in Article 20 (1), to achieve the harmonisation of technical rules and mutual recognition of certificates.

EMEC is confident that the Directive will give an important contribution towards:

- ✦ The establishment of a genuine Internal Market for marine equipment;
- ✦ The enhancement of the competitiveness of European marine equipment industry;
- ✦ The protection of knowledge and technology developed by European industry and, most importantly,
- ✦ The definition of a uniform body of European technical rules, which will ensure that navigation in European and world seas complies with the highest safety standards.

**Class  
directive:  
art. 20**

# A win - win - win situation for the maritime industry.

A more efficient classification

More competitiveness for the European Maritime Industry

The highest standards for safety at sea and environmental protection



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