



GUIDELINES 2007

for the

Recreational Craft Directive 94/25/EC
as amended by Directive 2003/44/EC

For general application of the conformity assessment procedures
by Notified Bodies and Manufacturers.

This supersedes the 2006 version.



Prepared by

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A. THE RSG

The Recreational Craft Sectoral Group (RSG), consisting of all Notified Bodies and other parties with valid interest, has been established to assist in the uniform application and interpretation of the actual version of the Recreational Craft Directive (RCD).

The objectives of co-operation within the RSG are:

- to share experience and exchange views on the application of the conformity assessment procedures with the aim of contributing to a uniform understanding and application of requirements and procedures;
- to elaborate opinions from a technical point of view on matters of conformity assessment procedures by seeking a consensus;
- to give advice to the Commission following its request on subjects related to the application of the Directives;
- to consider aspects of ethics related to Notified Body activities and to elaborate, if necessary, statements on that topic;
- to remain in coherence with standardisation work at European and international level;
- to remain informed of harmonisation activities at European level.

This is accomplished by co-operation among certification organisations, user organisations, and Manufacturers, who are participating in the development of these RSG guidelines¹.

The tasks of the RSG are:

- to be a forum for exchanging information and raising issues of common concern relating to conformity assessment and other technical aspects;
- to define points of difficulty, propose possible solutions and either agree on a common solution or agree on the equivalence of several solutions;
- to prepare recommendations and draft guidelines for acceptance by the Standing Committee established under the RCD and for the Commission;
- to receive and discuss Commission guidance documents and other information pertinent to the practical application of the RCD;
- to collect and collate questions and problems arising from the practical application of the RCD and to present these, together with RSG recommended solutions, where possible, to the Commission.

The composition of RSG comprises the following parties:

- Notified Bodies
- The Commission
- The Recreational Craft Industry
- User Organisation
- European Standardisation Bodies

¹ In addition to these RSG Guidelines, there are guidelines issued by the Commission services, called "Recreational Craft Directive and Comments to the Directive Combined" (the CC-paper), printed copies of which can be obtained from the Commission services or which can be downloaded from the Commission's website at following URL:

http://europa.eu.int/comm/enterprise/maritime/maritime_regulatory/doc/guide_v2_94_25_en.pdf

List of RSG Committee Meetings

<u>RSG Committee meeting No/Location</u>	<u>Date</u>	<u>Host</u>
00 Brussels	26.09.95	EOTC/IMCI
01 Amsterdam	16./17.11.95	during METS
02 Paris	12.01.96	BV
03 Genoa	12.03.96	RINA
04 Hamburg	15.04.96	GL
05 Helsinki	04.06.96	VTT
06 London	03.09.96	LR
07 Brussels	12.12.96	IMCI
08 Oslo	10.03.97	DNV
09 Stockholm	20.05.97	Marin Test
10 la Rochelle	17.09.97	ICNN
11 Harlem Amsterdam	20.11.97	NKIP
12 Oxford	16.03.98	AEA
13 Brussels	19.05.98	IMCI
14 Lisbon	19.10.98	RINAVE
15 Hamburg	01.03.99	LRQA
16 Rotterdam	28.05.99	LR NL
17 Athens	07.10.99	HR
18 Dublin	14.03.00	ISA
19 Hamburg	05.05.00	TÜV Prod
20 Volendam	08.11.00	ECB
21 Rimini	02.04.01	IMCI
22 Paris	11.12.01	BV
23 Brussels	18.03.02	RSG
24 Genoa	23/24.09.02	RINA
25 Lisbon	10/11.03.03	RINAVE
26 Brussels	29/30.09.03	EU Commission Service
27 Helsinki	18/19.03.04	VTT
28 Miami	28/29.10.04	NNMA
29 Düsseldorf	13/14.01.05	IMCI
30 Stockholm	15/16.06.05	DNV
31 Brussels	17/18.11.05	EU Commission Service
32 La Rochelle	03/04.05.06	ICNN
33 Gdansk	23/24.09.06	PRS
34 Brussels	10/11.05.07	EU Commission Services

B. INTRODUCTION

These guidelines are prepared to assist with the conformity assessment procedures undertaken by Notified Bodies for recreational craft, personal watercraft, their components and their engines, in accordance with the Directive 94/25/EC of the European Parliament and of the Council, dated 16 June 1994 on the approximation of the laws, regulations and administrative provisions of the Member States relating to recreational craft as amended by Directive 2003/44/EC. This Directive lays down the requirements for the assessment procedures to be followed by Manufacturers when demonstrating conformity of their products.

The English text of the Recreational Craft Directive as amended and as published in the Official Journals L/164/15 from 30.06.1994, L/127/27 from 10.06.1995, L/41/20 from 15.02.2000 and L 214/18 from 26.08.2003 is the basic text used for a common understanding within the Recreational Craft Sectoral Group.

When these guidelines provide information for craft and engines outside those conformity assessment procedures undertaken by Notified Bodies, this information is provided for guidance only.

In addition to changes for design and construction, Directive 2003/44/EC of the European Parliament and of the Council, dated 16 June 2003, provides a major extension of the scope of Directive 94/25/EC by including personal watercraft and by adding essential requirements on noise and exhaust emissions for craft with propulsion engines. Directive 2003/44/EC does not replace or revoke Directive 94/25/EC, but amends some of its provisions and adds some new requirements. The provisions of the original Directive 94/25/EC which have not been changed by Directive 2003/44/EC therefore remain in force. Both Directives should always be considered as a combined document. Whenever reference is made in these Guidelines to the RCD, to the Directive or to the amended Directive, this should be read to mean Directive 94/25/EC as amended by Directive 2003/44/EC.

The following statement is given in the preamble to Directive 94/25/EC:

Whereas, in view of the nature of risks involved in the use of recreational craft and their components, it is necessary to establish procedures applying to the assessment of compliance with the essential requirements of the Directive; whereas these procedures must be devised in the light of the level of risk which may be inherent in recreational craft and their components;

The RSG has taken these risks, so far as possible, into consideration when preparing these guidelines.

In Annex I, A, under General Requirements, the amended Directive states:

Products falling under Article 1(1)(a) shall comply with the essential requirements in so far as they apply to them.

This provision is also addressed in Annex XIII, Technical Documentation Supplied by the Manufacturer. Among other provisions the Directive states:

The documentation shall contain so far as relevant for assessment:... a list of the standards referred to in Article 5, applied in full or in part, and descriptions of the solutions adopted to fulfil the essential requirements when the standards referred to in Article 5 have not been applied.

Due to the variety of recreational craft between and including 2,5 and 24 meters hull length, the RSG has considered the applicability of various parts of existing standards to different

recreational craft, personal watercraft and engine types.

RSG urges the industry and Notified Bodies to use EN Standards.

Where suitable standards are not available the RSG has established uniform guidelines to assist with demonstrating conformity with the Essential Safety Requirements of the Directive. The RSG guidelines will be reviewed when suitable standards become available and amended as may be necessary.

The list of "Standards in support of the RCD" is available from the RSG website www.rsg.be. Part of this list is a column identifying the date from which a specific document is valid in accordance with the RSG Guidelines either as a CD, a DIS or an FDIS, or the date of publication of the harmonised standard in the Official Journal of the EU.

It should be noted that Article 5 of the Directive recommends the use of harmonised standards as this ensures presumption of conformity with the essential requirements of the Directive. Harmonised standards are standards adopted by the European standardisation organisations and the references of these adopted standards have to be published in the Official Journal of the European Communities and be transposed into national standards by the Member States (See also Chapter D). The use of harmonised standards is voluntary, with the exception of the two mandatory standards for noise and exhaust emission testing specified in the amended Directive. Also the use of a harmonised standard is obligatory for the length measurement of craft (see article 1.3(a) of the Directive)

C. GENERAL GUIDELINES FOR CONFORMITY ASSESSMENT PROCEDURES

General

- Members of RSG have agreed to co-operate in the preparation of Guidelines to provide harmonisation of approach and application of the conformity assessment procedures.
- RSG Guidelines will be published, given wide circulation, and made available to Manufacturers and other organisations.
- RSG Guidelines have been formatted to follow the numbering system of the EC Directive relating to recreational craft.
- RSG Guidelines will be available from the RSG Secretariat.
- RSG Guidelines will be revised when necessary to reflect changes in the state of the art and standards.
- RSG RFUs are submitted for acceptance by the Standing Committee established in accordance with article 6(3) of Directive 94/25/EC.

Certificates

- RSG does not issue Certificates. EC Certificates are issued, where required by the Directive, by a Notified Body who is responsible for the validity and contents of the certificates.

D. CHAPTERS AND ARTICLES OF THE DIRECTIVE

Text of Article 5 of the Directive:

Member States shall presume compliance with the essential requirements referred to in Article 3 of products referred to in Article 1 (1) which meet the relevant national standards adopted pursuant to the harmonised standards the reference of which have been published in the Official Journal of the European Communities; Member States shall publish the references of such national standards.

With reference to the harmonised standards mentioned in Article 5, the Notified Bodies and Manufacturers should refer to the references of these standards as published in the Official Journal of the European Communities and the references of the national standards as published by the Member States. In the absence of harmonised standards, other means of demonstrating compliance with the essential requirements could consist e.g. of applying the latest project list and the current status (ISO/CD, ISO/DIS, ISO, EN, etc.) of standards under development. More specific, where harmonised standards are not used, demonstration of compliance shall at least consist of

- Description of case
- Description of applicability of the alternative methods used for assessment
- Documentation of all records used (calculations, test reports, empirical records including transposition method, information of conditions of use in relation to intended design category, failures, reclamation, etc.)
- Documented verification of the case in relation to the alternative methods applied and described.

The relevant parts of the standards in support of the essential requirements of the Directive are mentioned in their annex ZA of the DIS and FDIS versions of the standards. Annex ZA will only appear in EN-ISO standards (harmonised standards) and not in the published ISO standards (non-harmonised standards).

The standards that have been used shall be referenced in the Technical Documentation.

In cases where the RSG group is of the opinion in accordance with the convenors of the standards that the updated standard is preferably to be used, the revision of the non-harmonised standard will be mentioned in addition to the harmonised standard on the standards list of the RSG website www.rsg.be.

E. ANNEX I – ESSENTIAL REQUIREMENTS

PRELIMINARY OBSERVATION

For the purposes of this Annex the term "craft" shall cover recreational craft and personal watercraft.

E.A. Essential Safety Requirements for the Design and Construction of Craft

E.A.1 BOAT DESIGN CATEGORIES

a. Text of Annex I of the Directive:

<i>Design category</i>	<i>Wind force (Beaufort scale)</i>	<i>Significant wave height (H 1/3, meters)</i>
<i>A - 'Ocean'</i>	<i>exceeding 8</i>	<i>exceeding 4</i>
<i>B - 'Offshore'</i>	<i>up to, and including, 8</i>	<i>up to, and including, 4</i>
<i>C - 'Inshore'</i>	<i>up to, and including, 6</i>	<i>up to, and including, 2</i>
<i>D - 'Sheltered waters'</i>	<i>up to, and including, 4</i>	<i>up to, and including, 0,3</i>

Definitions:

A. OCEAN: *Designed for extended voyages where conditions may exceed wind force 8 (Beaufort scale) and significant wave heights of 4 m and above but excluding abnormal conditions, and vessels largely self-sufficient.*

B: OFFSHORE: *Designed for offshore voyages where conditions up to, and including, wind force 8 and significant wave heights up to, and including, 4 m may be experienced.*

C: INSHORE: *Designed for voyages in coastal waters, large bays, estuaries, lakes and rivers where conditions up to, and including, wind force 6 and significant wave heights up to, and including, 2 m may be experienced.*

D: SHELTERED WATERS: *Designed for voyages on sheltered coastal waters, small bays, small lakes, rivers and canals when conditions up to, and including, wind force 4 and significant wave heights up to, and including, 0,3 m may be experienced, with occasional waves of 0,5 m maximum height, for example from passing vessels.*

Craft in each Category must be designed and constructed to withstand these parameters in respect of stability, buoyancy, and other relevant essential requirements listed in Annex I, and to have good handling characteristics.

NOTE: The Design category parameters are intended to define the physical conditions that might arise in any category for design evaluation, and are not intended for limiting the use of the recreational craft in any geographical areas of operation, after it has been put into service.

The physical conditions shall be determined from the maximum wind strength and wave profiles, where wave profiles are consistent with waves generated by wind blowing at the maximum stated strength for a prolonged period, subject to limits of the implied fetch and the maximum stated wave heights, and excluding abnormal factors such as sudden change in depth or tidal races.

For category D, allowance should be made for waves of passing vessels up to a maximum

wave height of 0,5 m.

For category A, unlimited conditions apply as they reflect that a vessel engaged on a long voyage might incur any conditions and should be designed accordingly, excluding abnormal weather conditions e.g. hurricane.

The last paragraph is an introduction. The assessment in respect of stability, buoyancy, handling characteristics and other relevant essential requirements are dealt with in other parts of Annex I of the Directive.

b. Recommendations for use.

Relevant Approved Recommendations for Use (ARFU):

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E.A.2 GENERAL REQUIREMENTS

a. Text of Annex I of the Directive:

Products falling under Article 1(1)(a) shall comply with the essential requirements in so far as they apply to them.

The essential requirements listed below apply to all craft as defined in Article 1. Where harmonised standards have been adopted to demonstrate compliance with the ESR they are referenced below. For inflatable boats, rigid hull inflatable boats and PWC separate harmonised standards have been adopted to cover demonstration of compliance with all the relevant essential requirements – see E.A.6 and E.A.7.

b. Relevant harmonised standard – length measurement:

Article 1.2 specifies that the length of a recreational craft shall be from 2,5m to 24m measured according to the appropriate harmonised standard. The harmonised standard to be used for length measurement is EN ISO 8666:2002 Principal Data.

Clauses of EN ISO 8666:2002	Corresponding clauses of RCD	Comments
All clauses	As appropriate	Defines principal boat dimensions and data
4.2.2	Article 1.3, clause (a) and (b), Article 8, clause 1, 2 , Annex I, A, clause 3.3, 3.8 Annex I, C, clause 1.3	Hull length measurement

E.A.2.1 Craft Identification

a. Text of Annex I of the Directive:

Each craft shall be marked with an identification number including the following information:

- *manufacturer's code,*
- *country of manufacture*
- *unique serial number,*
- *year of production,*
- *model year.*

The relevant harmonised standard gives details of these requirements.

b. Relevant harmonised standard:

EN ISO 10087: 2006– Small craft - Craft identification - Coding System

Clauses of EN ISO 10087: 2006	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.2.1, Hull identification	Under revision

c. Recommendations for use.

Relevant Approved Recommendations for Use (ARFU):

39, # 48

E.A.2.2 Builder's Plate

a. Text of Annex I of the Directive:

Each craft shall carry a permanently affixed plate mounted separately from the boat hull identification number, containing the following information:

- *manufacturer's name,*
- *CE marking,*
- *boat design category according to section 1,*
- *manufacturer's maximum recommended load derived from section 3.6 excluding the weight of the contents of the fixed tanks when full*
- *number of persons recommended by the manufacturer for which the boat was designed to carry when underway.*

The requirement to state the Manufacturer's maximum recommended load on the builder's plate excludes the weight of the liquids in any fixed tanks from the weight shown on the plate. This is to avoid the possibility of users accidentally overloading boats because they thought that the weight shown for the content of tanks could be used for carry on items, luggage etc.

In case of post construction assessment see the provisions and comments made under Article 8 of Directive 2003/44/EC.

b. Relevant parts of the non-harmonised draft standard:

EN ISO 14945:2004/AC:2005 - Small craft - Builder's plate

Clauses of EN ISO 14945:2004/AC:2005	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.2.2, Builder's Plate	A CE mark shall also be displayed (followed by the identification number of the Notified Body for modules D, E, F, G and H, other modules are excluded)

Note: The Harmonized standard specifies that for craft which are powered by outboard engine(s) the mass of the engine(s) shall be included, with the outboard engine symbol.

E.A.2.3 Protection from Falling Overboard and Means of Re-boarding

a. Text of Annex I of the Directive:

Depending on the design category, craft shall be designed to minimise the risks of falling overboard and to facilitate re-boarding.

b. Relevant parts of the standard:

EN ISO 15085:2003 - Small craft - Man overboard prevention and recovery

Clauses of EN ISO 15085:2003	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.2.3	Sets requirements to reduce the risk of falling overboard. The requirements vary according to Design Category and boat type. Also covers man-overboard recovery.

E.A.2.4 Visibility from the Main Steering Position

a. Text of Annex I of the Directive:

For motor boats, the main steering position shall give the operator, under normal conditions of use (speed and load), good all-round visibility.

b. Relevant parts of the harmonised standard:

EN ISO 11591:2000 – Small Craft - Engine-driven small craft - Field of vision from helm position.

Clauses of EN ISO 11591:2000	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.2.4, Visibility from the main steering position	Sets requirements for motor boats for all-round visibility from the helmsman's position
7	Annex I, A.2.5, Owner's manual	

In this context, motor boats are boats with engines as the primary source of propulsion.

E.A.2.5 Owner's Manual

a. Text of Annex I of the Directive:

Each craft shall be provided with an owner's manual in the official Community language or languages, which may be determined by the Member State in which it is marketed in accordance with the Treaty. This manual should draw particular attention to risks of fire and flooding and shall contain the information listed in sections 2.2, 3.6 and 4 as well as the unladen weight of the craft in kilograms.

b. Relevant parts of the harmonised standard: EN ISO 10240:2004 Small Craft - Owner's manual.

Clauses of EN ISO 10240: 2004	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.2.5 Owner's manual	

EN ISO 10240: 2004 has been prepared to meet the Directive's requirements for an Owner's Manual for craft, taking into account development of the other harmonised standards which sometimes refer to information required in the Owner's Manual.

c. Language, translation and scope of Owner's Manual

A procedure shall be established for the particular information, as required by the Directive, to be included in the language required in the area where the product is put on the market. Equipment manuals supplied, in addition to the Owner's Manual, are not required to be translated.

Even where a standard requires descriptions, drawings, and diagrams, the information in the Owner's Manual may be limited to the safe operation of the craft, with due consideration for the environment. The Owner's Manual does not have to include full technical servicing information, such as wiring diagrams, fuel piping, etc., which may be included in a document, separate from the Owner's Manual. This technical service document need not be translated.

A generic Owner's Manual, if relevant is acceptable. It may have provisions for filling out specific model information by hand.

The Owner's Manual may be in a language specified by the boat owner.

d. Recommendations for use.

Relevant Approved Recommendations for Use (ARFU):

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E.A.3 INTEGRITY AND STRUCTURAL REQUIREMENTS

E.A.3.1 Structure

a. Text of section 3.1 of Annex I of the Directive:

The choice and combination of materials and its construction shall ensure that the craft is strong enough in all respects. Special attention shall be paid to the design category according to section 1, and the manufacturer's maximum recommended load in accordance with section 3.6.

b. Relevant harmonised standard: EN ISO 12215 Small craft - Hull construction - Scantlings - parts 1 to 4

Part 1:2000 Materials: Thermosetting resins, glass fibre reinforcement, reference laminate.

Clauses of EN ISO 12215-1:2000	Corresponding clauses of RCD	Comments
All clauses	3.1 of Annex I, A, Structure	The standard provides requirements for fibre reinforced plastic construction materials.

Part 2:2002 Sandwich construction

Clauses of EN ISO 12215-2:2002	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.3.1	The standard provides requirements for core materials suitable for sandwich construction

Part 3:2002 Steel, wood, aluminium, other materials

Clauses of EN ISO 12215-3:2002	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.3.1	The standard provides requirements for steel, aluminium and wood construction materials

Part 4:2002 Workshop and construction

Clauses of EN ISO 12215-4:2002	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.3.1	The standard provides requirements for workshop and manufacturing

- c. Relevant non-harmonised standards: EN ISO 12215 Small craft - Hull construction - Scantlings - Parts 5 to 9, under preparation and validation.

Part 5: Design pressures, allowable stresses, scantling determination (under validation)

Clauses of prEN ISO/DIS 12215-5.2:2004	Corresponding clauses of RCD	Comments
Clause 1 to 9	Annex I, A.3.1 Structure	Full method for calculating hull scantlings
Clause 10	Annex I, A.2.5 Owner's manual	Owner' Manual
Annex A	Annex I, A.3.1 Structure	Graphical method for calculating hull scantlings and simple method for calculating scantlings of small sailing boats
Annex B	Annex I, A.3.1 Structure	Drop test method for boats less than 6m length
Annex C	Annex I, A.3.1 Structure	FRP laminate properties
Annex D	Annex I, A.3.1 Structure	Sandwich laminate properties
Annex E	Annex I, A.3.1 Structure	Wood laminate properties
Annex F	Annex I, A.3.1 Structure	Metal properties
Annex G	Annex I, A.3.1 Structure	Stiffeners
Annex H	Annex I, A.3.1 Structure	Laminate stack analysis

Part 6: Details of design and construction (under validation)

Clauses of prEN ISO 12215-6.2:2004	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.3.1	Covers structural arrangements and details

Part 7: Scantling determination of multihulls (under validation)

Part 8: Rudderstocks and bearings (under validation)

Part 9 Appendages and rig attachments (under validation)

d. Although there may be standards or parts of standards that relate to the integrity and structure of component parts of craft, RSG has interpreted the Essential Safety Requirements as relating to the integrity and structural requirements of the hull, deck and superstructure. This includes items such as keel attachments, rudder, chain plates and other strength critical items as appropriate.

e. To assess the structural integrity, one of the following approaches shall be considered:

1. Application of appropriate parts of EN ISO 12215, provided that the scantlings derived from draft parts of the standard are checked by one of the methods described below. Appropriate documentation shall be developed (see f .1 below).
2. The structural requirements of the hull may be assessed by other acceptable

scantling determination methods that are applicable to the boat type, design category and the Manufacturer's maximum recommended load. Appropriate documentation shall be kept (see f .1 below)

3. As an alternative to acceptable scantlings determination methods or in cases where no applicable rules exist, acceptable construction calculation(s) or testing may be used. Calculations and proof of testing shall be documented (see f .2 below).
4. In particular cases and if acceptable empirical knowledge can be demonstrated as to the structural requirements of the hull, this may be used as an alternative to the previous methods outlined. This shall include relevant documentation (see f .3 below).

f. Appropriate documentation supporting the methods used shall be developed.

If applicable the following shall be included when drafting the appropriate documentation:

1. Scantling determination method
 - Description of the acceptable scantling determination method used for assessment
 - Description of material, principle of structure and scantlings for the case
 - Input values for strength and stiffness of materials used
 - Input and output calculation results on the different structural members
2. Calculation and/or testing
 - Description of case
 - Reference to applied calculation method (loads, materials, geometry, analysis principle)
 - Evaluation and statement of the applicability of the method for assessment
 - Input and output calculation results on the different structural members
 - Description of test methods and their applicability for the case
 - Test results and their validity for assessment purposes
3. Empirical knowledge
 - Description of case
 - Description of applicability of the empirical material used for assessment
 - Documentation of empirical records (information of conditions of use in relation to intended design category, failures, reclamation, tests, etc.)
 - Documentation of transposition method used from the empirical data to actual use
 - Assessment of the case in relation to empirical knowledge according to method described.

For structural requirements of opening appliances, see EN ISO 12216:2002 – Small Craft - Windows, port lights, hatches, deadlights and doors - Strength and tightness requirements (see E.3.4).

g. Recommendations for use.

Relevant Approved Recommendations for Use (ARFU):

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E.A.3.2 Stability and Freeboard and

E.A.3.3 Buoyancy and Flotation

a. Text of section 3.2 and 3.3 of Annex I of the Directive

Stability and Freeboard: The craft shall have sufficient stability and freeboard considering its design category according to section 1 and the manufacturer's recommended load according to section 3.6.

Buoyancy and Flotation: The craft shall be constructed to ensure that it has buoyancy characteristics appropriate to its design category according to section 1.1, and the manufacturer's maximum recommended load according to section 3.6. All habitable multihull craft shall be so designed as to have sufficient buoyancy to remain afloat in the inverted position.

Boats of less than six meters in length that are susceptible to swamping when used in their design category shall be provided with appropriate means of flotation in the swamped condition.

b. Relevant parts of the harmonised standards:

EN ISO 12217 Small craft - Stability and Buoyancy - Methods of assessment and categorisation, parts 1 to 3.

EN ISO 12217 Part 1:2002 Non-sailing boats over 6 metres hull length

Clauses of EN ISO 12217-1: 2002	Corresponding clauses of RCD	Comments
5, 6.1, 6.2, 6.3, 6.4, 7, Annex A, B, C, D	Annex I, A.3.2, Stability and Freeboard, Clause 3.5, Flooding, and Clauses 3.6 and 3.2, maximum load and number of persons	Design categories A, B, C and D defined in the standard are considered to correspond to design categories A, B, C and D of the Directive
6.5, Annex E, F	Annex I, A.3.3, Buoyancy and flotation.	
Annex G	Annex I, A.2.5, Owner's manual	

EN ISO 12217 Part 2:2002 Sailing boats over 6 metres hull length.

Clauses of EN ISO 12217-2:2002	Corresponding clauses of RCD	Comments
5, 6, 7, 8, Annex A, B, C	Annex I, A.3.2, Stability and Freeboard, Clause 3.5, Flooding, and Clauses 3.6 and 3.2, maximum load and number of persons	Design categories A, B, C and D defined in the standard are considered to correspond to design categories A, B, C and D of the Directive
6.7, 7.6, Annex D, E	Annex I, A.3.3, Buoyancy and flotation.	
Annex F	Annex I, A.2.5, Owner's manual	

EN ISO 12217 Part 3:2002 Boats up to and including 6 metres hull length

Clauses of EN ISO 12217-3:2002	Corresponding clauses of RCD	Comments
5, 6, 7, 8, Annex A, B, C, D	Annex I, A.3.2, Stability and Freeboard, Clause 3.5, Flooding, and Clauses 3.6 and 3.2, maximum load and number of persons	Design categories A, B C and D defined in the standard are considered to correspond to design categories A, B, C and D of the Directive
6.4, 6.5, 7.3, Annex B, C, D	Annex I, A.3.3, Buoyancy and flotation.	
Annex E	Annex I, A.2.5, Owner's manual	

The assumption has been made that the important requirement for a personal watercraft is the ability of the user to recover from a stability incident, rather than to prevent capsizing, as defined by EN ISO 12217 Part 3 for capsize-recoverable sailing dinghies.

Note that compliance with EN ISO 12217 - Stability and Buoyancy assumes compliance with EN ISO 14946:2001 - Maximum load capacity, EN ISO 11812:2001 - Watertight and quick draining cockpits and EN ISO 12216:2002 - Windows, portlights, hatches, deadlights and doors - Strength and tightness requirements, where relevant.

Stability of inflatable boats and RIBs is covered by EN ISO 6185 – see E.A.6.

c. Recommendations for use.

Relevant Approved Recommendations for Use (ARFU):

32, # 40

E.A.3.4 Openings in Hull, Deck and Superstructure

a. Text of section 3.4 of Annex I of the Directive:

Openings in hull, deck(s) and superstructure shall not impair the structural integrity of the craft or its weather tight integrity when closed.

Windows, portlights, doors and hatch covers shall withstand the water pressure likely to be encountered in their specific position, as well as point loads applied by the weight of persons moving on deck.

Through hull fittings designed to allow water passage into the hull or out of the hull, below the waterline corresponding to the manufacturer's maximum recommended load according to section 3.6, shall be fitted with shutoff means which shall be readily accessible.

b. Relevant Parts of the harmonised standards:

EN ISO 12216:2002 – Small Craft - Windows, portlights, hatches, deadlights and doors - Strength and tightness requirements

Clauses of EN ISO 12216:2002	Corresponding clauses of RCD	Comments
3, 4.1, 5, 6, 7, 8 Annex A, B, C, D, E and F	Annex I, A.3.1, Structure and 3.4, Openings in hull, deck and superstructure - structural integrity.	Structural requirements for openings and opening appliances.
3, 4.2, 4.3, Annex A and D1	Annex I, A.3.4, Openings in hull, deck and superstructure - weathertight integrity.	Watertightness requirements for openings and opening appliances.
3.8, 6.3.7	Annex I, A.3.8, Escape - multihull escape.	Multihull escape hatch
3, 4, 5, 6 (6.3.8), Annex A, B, C, D, E and F	Annex II, 5, Components - Prefabricated hatches and portlights.	

EN ISO 9093 – Small Craft - Seacocks and through-hull fittings, parts 1 and 2

Part1:1997 Metallic

Clauses of EN ISO 9093-1:1997	Corresponding clauses of RCD	Comments
3, 4, 5, 6, 7, & 9.	Annex I, A.3.4 - Openings in hull, deck and superstructure.	ISO 9093-1 provides a standard for compliance with 'shutoff means which shall be readily accessible'.
6 & 9	Annex I, A.2.5 - Owner's Manual	Details of the correct operation of seacocks to minimise risk of flooding should be given in the Owners Manual.
5.2, 9.1 & 9.4	Annex I, A.3.1 - Structure and Annex I, A.3.4 - Openings in hull, deck and superstructure.	Clauses 5.2, 9.1 and 9.4 relate to the strength of the craft in way of through hull fittings.

3, 4, 5, 6, 7 & 9	Annex I, A.3.3 - Buoyancy and flotation and Annex I, A.3.5 - Flooding.	The design and installation of through hull fittings and seacocks should not create a risk of flooding or impair the craft's buoyancy or flotation characteristics.
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EN ISO 9093 – Small Craft - Seacocks and through-hull fittings

Part 2:2002 Non-Metallic

Clauses of EN ISO 9093-2:2002	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.3.4 - Openings in hull Annex I, A.3.5 – Flooding	Risk of flooding from through hull fittings
10.1.1	Annex I, A.3.1 – Structure Annex I, A.3.4 – Openings in hull	Strength of hull at through hull fittings.
12	Annex I, A.2.5 - Owner's Manual	

c. Recommendations for use.

Relevant Approved Recommendations for Use (ARFU):

56

E.A.3.5 Flooding

a. Text of section 3.5 of Annex I of the Directive:

All craft shall be designed so as to minimise the risk of sinking.

Particular attention should be paid where appropriate to:

- *cockpits and wells, which should be self-draining or have other means of keeping water out of the boat interior,*
- *ventilation fittings,*
- *removal of water by pumps or other means.*

b. Cockpits and wells

Relevant parts of the harmonised Standard:

EN ISO 11812:2001 - Small craft - Watertight and quick draining cockpits

Clauses of EN ISO 11812:2001	Corresponding clauses of RCD	Comments
All Clauses	Annex I, A.3.5, Flooding - Cockpits and wells	Defines cockpits that are 'quick-draining' when required to be so by EN ISO 12217
10	Annex I, A.2.5, Owner's manual	

c. Ventilation fittings

Relevant harmonised standards: EN ISO 12216:2002 – Small Craft - Windows, portlights, hatches, deadlights and doors - Strength and tightness requirements and EN ISO 12217 – Small Craft - Stability - Non-sailing and sailing vessels, Parts 1 to 3

d. Removal of water by pumps

Relevant parts of standards:

EN ISO 15083:2003 - Small craft - Bilge pumping systems

Clauses of EN ISO 15083:2003	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.3.5, Flooding	Requirements for removal of residual water by pumps.
8, Annex A	Annex I, A.2.5, Owner's manual	Requirements vary with boat type, size and Design Category.

Note that the requirements of EN ISO 15083:2003 - Small craft - Bilge pumping systems, do not cover pumps intended for damage control or damage control systems. Sealed or non-water retaining volumes of a hull do not require bilge pumps.

EN 28849:1993/A1:2000– Small craft - Electrically operated bilge pumps (ISO 8849:1990) – See E.5.3.

E.A.3.6 Manufacturer's Maximum Recommended Load

a. Text of section 3.6 of Annex I of the Directive:

The manufacturer's maximum recommended load (fuel, water, provisions, miscellaneous equipment and people (in kilograms)) for which the boat was designed shall be determined according to the design category (section 1), stability and freeboard (section 3.2) and buoyancy and flotation (section 3.3).

b. Relevant parts of the harmonised standard:

EN ISO 14946:2001/AC:2005 - Small craft - Maximum load capacity

Clauses of EN ISO 14946:2001/AC:2005	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.3.6, Manufacturer's maximum recommended load.	The standard defines the items of load, including weight of persons, to be included in the Manufacturers maximum recommended load for stability and buoyancy tests.

Note: The maximum load shown on the Builder's Plate excludes fixed tank capacities. See also Section E.2.2. For craft which are powered by outboard engine(s) the weight shown on the builder's plate shall include the mass of the engine(s), and may be larger than the Manufacturer's maximum recommended load.

c. Recommendations for use.

Relevant Recommendations for Use (RFU):

#76

E.A.3.7 Liferaft stowage

a. Text of section 3.7 of Annex I of the Directive:

All craft of categories A and B, and craft of categories C and D longer than six metres shall be provided with one or more stowage points for liferaft (s) large enough to hold the number of persons the boat was designed to carry as recommended by the manufacturer. This (these) stowage point(s) shall be readily accessible at all times.

b.

RSG interprets the words stowage point(s) to mean any space or surface in or on the craft.

E.A.3.8 Escape

a. Text of section 3.8 of Annex I of the Directive:

All habitable multihull craft over 12 metres long shall be provided with viable means of escape in the event of inversion.

All habitable craft shall be provided with viable means of escape in the event of fire.

b. Relevant parts of harmonised standards:

Applicable parts of the standards EN ISO 9094-1:2003, EN ISO 9094-2:2002 – Small Craft - Fire protection and EN ISO 12216:2002 – Small Craft - Windows, portlights, hatches, deadlights and doors - Strength and tightness requirements.

c. Each habitable area of a multihull craft shall have access to an escape hatch capable of being used in the capsized position.

d. Recommendations for use.

Relevant Recommendations for Use (RFU):

#70

E.A.3.9 Anchoring, mooring and towing

a. Text of section 3.9 of Annex I of the Directive:

All craft, taking into account their design category and their characteristics shall be fitted with one or more strong points or other means capable of safely accepting anchoring, mooring and towing loads.

b. Relevant part of standard:

EN ISO 15084:2003 Small craft - Anchoring, mooring and towing - Strong points.

Clauses of EN ISO 15084:2003	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.3.9	Specifies number, position and strength of strong points for anchoring, mooring and towing

E.A.4 HANDLING CHARACTERISTICS

a. Text of the first sentence of section 4 of Annex I of the Directive:

The manufacturer shall ensure that the handling characteristics of the craft are satisfactory with the most powerful engine for which the boat is designed and constructed.

b. This essential requirement is considered to relate only to high speed handling characteristics of powered craft when operated at or near to maximum speed (as it refers to the characteristics with the most powerful engine). It does not apply to sailing boats and slow speed craft, but aspects of handling of all craft in rough weather are addressed in the stability standards (E 3.3, 3.4).

c. Relevant part of the harmonised standards:

EN ISO 11592:2001 – Small Craft - Determination of maximum propulsion power - in terms of manoeuvrability, for craft less than 8 m length of hull.

Clauses of EN ISO 11592:2001	Corresponding clauses of RCD	Comments
1, 2, 3, 4.2, 4.4, 4.5, 5, 6, 7 and Annex A	Annex I, A.4, Handling characteristics	The standard provides a method of determining maximum engine power for boats of less than 8m hull length.
Annex B	Annex I, A.2.5, Owner's manual	A power capacity label is not required for Directive 94/25/EC, but the maximum rated engine power shall be declared in the Owner's Manual.

The harmonised standard covers only motor boats below 8m length. In recognition of the need for a standard for motor boats of over 8m length covering handling when operating at or near to maximum speed, a sub-group of ISO/TC 188 has been established. Dependant on the outcome of this work, a new standard may be introduced for motor boats above 8m length. Until then the handling characteristics of a motor boat above 8m length may be assessed by acceptable methods for assessing handling characteristics that are applicable to boat type, design category and the Manufacturers recommended maximum powering and load.

d. Text of the second sentence of section 4 of Annex I of the Directive

For all recreational marine engines, the maximum rated engine power shall be declared in the owner's manual in accordance with the harmonised standard.

e. Relevant part of the harmonised standards:

The Directive requires measurement of engine power according to the harmonised standard EN ISO 8665:2006. For a reference to the standard, compare to Chapter E.B.4. Note that this is one of the few cases for the Recreational Craft Directive where the use of the harmonised standard is mandatory.

The Directive requires that the maximum power of all propulsion engines for recreational craft, including both inboards and outboards, shall be declared in the owner's manual according to the harmonised standard (EN ISO 10240).

E.A.5 INSTALLATION REQUIREMENTS

E.A.5.1 Engine and engine spaces

E.A.5.1.1 Inboard engine

a. Text of paragraph one and two of section 5.1.1 of Annex I of the Directive:

All inboard mounted engines shall be placed within an enclosure separated from living quarters and installed so as to minimise the risk of fires or spread of fires as well as hazards from toxic fumes, heat, noise or vibrations in the living quarters.

Engine parts and accessories that require frequent inspection and/or servicing shall be readily accessible.

b. Relevant parts of harmonised standards

There are no specific standards for engine installation or engine compartments, but parts of other harmonised standards set requirements relevant for engine installation regarding the engine's fuel supply (EN ISO 10088 - Permanently installed fuel systems and fixed fuel tanks (actually under review), EN ISO 7840 - Fire resistant fuel hoses, EN ISO 21487 - Permanently installed petrol and diesel fuel tanks (not harmonised yet)), electrical installation (EN ISO 10133 -Electrical Equipment - Extra-low-voltage) and fire precautions (EN ISO 9094 - Fire protection).

For petrol engines additional requirements apply for ventilation (EN ISO 11105 -Ventilation of compartments containing petrol engines and/or petrol fuel tanks) and ignition protection EN 28846 - Electrical devices - Protection against ignition of surrounding flammable gases).

Inboard and stern drive engines are not subject to the Machinery Directive, but are referred to in the Essential Safety Requirements of the Recreational Craft Directive. The following harmonised standards apply to inboard and stern drive petrol and diesel engines when supplied by the engine Manufacturer with fitted fuel and electrical components.

EN ISO 15584:2001 - Small craft - Inboard petrol engines – Engine-mounted fuel and electrical system components

Clauses of EN ISO 15584:2001	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.1.1, Inboard engines	The standard sets requirements for fuel and electrical components mounted on inboard and stern drive petrol engines.
4.2, 5	Annex I, A.5.2.1, Fuel system	
6	Annex I, A.5.3, Electrical system	
4.1, 6	Annex II, Components, 1	

EN ISO 16147:2002 - Inboard diesel engines – Engine-mounted fuel and electrical system components

Clauses of EN ISO 16147:2002	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.1.1, Inboard engines	The standard sets requirements for fuel and electrical components mounted on
5	Annex I, A.5.2.1, Fuel system	

		inboard and stern drive diesel engines.
6	Annex I, A.5.3, Electrical system	

Corresponding document(s) (including DOCs when required for Annex II components) shall be supplied by the Manufacturer/supplier of the engine. The standard ISO 13592 - Small craft - Backfire flame control for petrol engines (not a harmonised standard) may also be relevant for engine Manufacturers.

c. Text of paragraph three of section 5.1.1 of Annex I of the Directive:

The insulating materials inside engine spaces shall be non-combustible.

Materials are considered as non-combustible if the oxygen index is at least 21 when measured in accordance with ISO 4589, Part 3, as referred to in EN ISO 9094-1:2003. In addition the material shall present a non-fuel absorbent surface to the engine – See RFU #51 (design and construction only).

d. Recommendations for use.

Relevant Recommendations for Use (RFU): #50, #51

E.A.5.1.2 Ventilation

a. Text of section 5.1.2 of Annex I of the Directive:

The engine compartment shall be ventilated. The dangerous ingress of water into the engine compartment through all inlets must be prevented.

b. For diesel engines no standard is envisioned for ventilation. Adequate natural ventilation must be provided and the risk of flooding through ventilation openings must be minimised - see ESR A.3.3 and A.3.4.

c. Relevant parts of harmonised standard for petrol engines:

EN ISO 11105:1997- Small craft - Ventilation of compartments containing petrol engines and/or petrol fuel tanks.

Clauses of EN ISO 11105:1997	Corresponding clauses of RCD	Comments
7	2.5 of Annex I, A Owner's manual	Specifies requirements for ventilation of petrol engine compartments and petrol tank compartments.
5.2, 5.3, 5.4, 6.3	3.5 of Annex I, A Flooding	
4, 5, 6	5.1.1 of Annex I, A Inboard engines	
4, 5, 6	5.1.2 of Annex I, A Ventilation	
4, 5, 6	5.2 of Annex I, A Fuel tanks	

- d. Recommendations for use.

Relevant Recommendations for Use (RFU): # 51, # 55

E.A.5.1.3 Exposed parts

- a. Text of section 5.1.3 of Annex I, A of the Directive:

Unless the engine is protected by a cover or its own enclosure, exposed moving or hot parts of the engine that could cause personal injury shall be effectively shielded.

- b. No standard is envisioned.

- c. Recommendations for use.

Relevant Recommendations for Use (RFU): # 51

E.A.5.1.4 Outboard engines starting

- a. Text of section 5.1.4 of Annex I, A of the Directive:

All boats with outboard engines shall have a device to prevent starting the engine in gear, except:

- (a) *when the engine produces less than 500 Newton (N) of static thrust;*
 (b) *when the engine has a throttle limiting device to limit thrust to 500 N at the time of starting the engine.*

- b. Relevant harmonised standard:

EN ISO 11547:1995/A1:2000 - Small craft - Start-in-gear protection

Clauses of EN ISO 11547:1995/A1:2000	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.1.4, Outboard engines starting Annex II, Components, 2	Sets requirements for methods to prevent an outboard motor being started while in gear.
5	Annex I, A.2.5, Owner's manual	

This harmonised standard is relevant mainly to the outboard engine Manufacturer for application of Annex II, Components.

- c. Recommendations for use.

Relevant Recommendations for Use (RFU): # 51

E.A.5.1.5 Personal watercraft running without driver.

a. Text of section 5.1.5 of Annex I, A of the Directive:

Personal watercraft shall be designed either with an automatic engine cut-off or with an automatic device to provide reduced speed, circular, forward movement when the driver dismounts deliberately or falls overboard.

b. Relevant harmonised standard:

EN ISO 13590:2003/AC:2004 - Small craft – Personal Watercraft – Construction and System Installation Requirements

Clauses of EN ISO 13590:2003/AC:2004	Corresponding clauses of RCD	Comments
12	Annex I, A.5.1.5, Personal watercraft running without driver	

c. Recommendations for use.

Relevant Recommendations for Use (RFU):

51

E.A.5.2 Fuel system

E.A.5.2.1 General

a. Text of section 5.2.1 of Annex I, A of the Directive:

The filling, storage, venting and fuel supply arrangements and installations shall be designed and installed so as to minimise the risk of fire and explosion.

These requirements apply to on-board fuel installations and fuel components mounted on inboard engines, both main engines and auxiliary engines (see E.A. 5.1).

b. Relevant parts of harmonised standards:

EN ISO 10088:2001 - Small craft - Permanently installed fuel systems and fixed fuel tanks (actually under revision)

Clauses of EN ISO 10088:2001	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.1.1, Inboard Engine Annex I, A.5.2, Fuel system Annex I, A.5.6.1 – Fire protection, General	The standard sets requirements for the installation of fuel systems and fuel tanks (excluding portable tanks).
	Annex II, Components, 4	Includes some fuel tank construction requirements, also relevant for Annex II.4.

EN ISO 7840:2004 - Small craft - Fire resistant fuel hoses – See Annex II.4

EN ISO 8469: 2006 - Small craft - Non-fire resistant fuel hoses – See Annex II.4

EN ISO 11105:1997- Small craft - Ventilation of compartments containing petrol engines and/or petrol tanks – See E.A.5.1.2

EN ISO 9094 - Small craft - Fire protection – See E.A.5.6.

c. Portable fuel tanks and their hoses are outside the scope of the Directive, i.e. will not receive any CE marking according to Annex II.

d. Recommendations for use.

Relevant Approved Recommendations for Use (ARFU): # 22, # 25, #30

Relevant Recommendations for Use (RFU): # 55, # 60

E.A.5.2.2 Fuel tanks

a. Text of section 5.2.2 of Annex I, A of the Directive:

Fuel tanks, lines and hoses shall be secured and separated or protected from any source of significant heat. The material the tanks are made of and their method of construction shall be according to their capacity and the type of fuel. All tank spaces shall be ventilated.

Petrol fuel shall be kept in tanks which do not form part of the hull and are:

- a) insulated from the engine compartment and from all other source of ignition;*
- b) separated from living quarters;*

Diesel fuel may be kept in tanks that are integral with the hull.

b. Relevant parts of non-harmonised draft standard:

EN ISO 21487:2006 – Small craft – Permanently installed petrol and diesel fuel tanks.

Clauses of EN ISO 21487:2006	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.2.2, Fuel tanks	The standard sets construction requirements for fuel tanks (excluding portable tanks).
	Annex II, Components, 4, Fuel tanks	

c. Purpose-designed ventilation systems are only required for petrol fuel tank spaces (see EN ISO 11105:1997)

d. Recommendations for use.

- Relevant Approved Recommendations for Use (ARFU): # 23
- Relevant Recommendations for Use (RFU): # 55

E.A.5.3 Electrical system

a. Text of section 5.3 of Annex I, A of the Directive:

Electrical systems shall be designed and installed so as to ensure proper operation of the craft under normal conditions of use and shall be such as to minimise risk of fire and electric shock.

Attention shall be paid to the provision of overload and short-circuit protection of all circuits, except engine starting circuits, supplied from batteries.

Ventilation shall be provided to prevent the accumulation of gases, which might be emitted from batteries. Batteries shall be firmly secured and protected from ingress of water.

b. Relevant parts of the harmonised standards:

EN ISO 10133:2000 - Small craft - Electrical Equipment - Extra-low-voltage electrical installations

Clauses of EN ISO 10133:2000	Corresponding clauses of RCD	Comments
4, 5, 6, 7, 8, 9, 10, 11,12	Annex I, A.5.3	The standard provides requirements for an on-board DC electrical system
12.1	Annex I, A.5.2.2 (a)	Ignition protection
7.1, 7.4	Annex I, A.5.6.1	Fire protection

EN ISO 13297:2000 - Small craft - Electrical Equipment - AC installations

Clauses of EN ISO 13297:2000	Corresponding clauses of RCD	Comments
4, 5, 6, 7, 8, 9, 10, 11,12, 13,14, Annex A, Annex B	Annex I, A.5.3	The standard provides requirements for an on-board AC electrical system
6	Annex I, A.5.2.2 (a)	Ignition protection
7.1, 7.4, Annex B	Annex I, A.5.6.1	Fire protection

EN 60092-507:2000 Electrical installations in ships – Part 507: Pleasure craft

Clauses of EN 60092-507:2000	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.3	Electrical System - Three phase systems only

EN 28846:1993/A1:2000 (ISO 8846:1990) - Small craft - Electrical devices - Protection against ignition of surrounding flammable gases – see Annex II, Components, Ignition protected equipment.

c. The requirement in 5.3 for electrical system applies to all electrical parts on the engine, which could create a spark, and also to other electrical components, which may be in the engine compartment. The harmonised standard for electrical equipment installation EN ISO 10133:2000, clause 12.1 states: "Electrical components installed in compartments which may contain explosive gases shall be ignition protected in accordance with EN 28846:1993/A1:2000 (ISO 8846:1990)". Thus it applies to all parts such but not limited to the following when installed in the engine compartment:

c.1 Electric fans

Relevant parts of harmonised standards:

EN ISO 9097:1994/A1:2000 Small Craft - Electric fans

Clauses of EN ISO 9097:1994/A1:2000	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.1.2, Ventilation Annex I, A.5.2.2, Fuel system	The standard sets requirements for construction of electric fans intended for use on recreational craft.
4.2	Annex II, Components, 1	

c.2 Bilge pumps

Relevant parts of harmonised standards:

EN ISO 8849:2003 Small craft - Electrically operated bilge pumps (ISO 8849:1990)

Clauses of EN ISO 8849:2003	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.3.5, Flooding Annex I, A.5.3, Electrical system	The standard sets requirements only for design of electric bilge pumps as components, with some requirements for installation.
4.2	Annex II, Components, 1	

c.3 Engines

Electrical components on engines, including both main engines and auxiliary engines, are covered by the harmonised standards below - See E.A.5.1.1, Inboard engines:

EN ISO 15584:2001 - Small Craft - Inboard mounted petrol engine fuel and electrical system components

EN ISO 16147:2002 - Small craft - Inboard mounted diesel engine fuel and electrical components

d. Recommendations for use.

Relevant Recommendations for Use (RFU):

55

E.A.5.4 Steering system

E.A.5.4.1 General

a. Text of section 5.4.1 of Annex I, A of the Directive:

Steering systems shall be designed, constructed and installed in order to allow the transmission of steering loads under foreseeable operating conditions.

b. Relevant parts of harmonised standards:

EN ISO 8847:2004/AC:2005 - Small craft - Steering gear - cable and pulley systems

Clauses of EN ISO 8847:2004/AC:2005	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.4.1 – Steering system, General Annex II, Components, 3	

EN 28848:1993/A1:2000 - Small craft - Remote steering systems (ISO 8848:1990)

Clauses of EN 28848:1993/A1:2000	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.4.1, Steering system, General Annex II, Components, 3	

EN ISO 10592:1995/A1:2000 - Small craft - Hydraulic steering gear

Clauses of EN ISO 10592:1995/A1:2000	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.4.1, Steering system, General Annex II, Components, 3	

EN 29775:1993/A1:2000 - Small craft - Remote steering systems for outboard motors of 15 kW to 40 kW power (ISO 9775:1990)

Clauses of EN 29775:1993/A1:2000	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.4.1, Steering system, General Annex II, Components, 3	

EN ISO 13929:2001 - Small craft - Steering gear - Geared link systems

Clauses of EN ISO 13929:2001	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.4.1, Steering system, General	
3.1	Annex I, A.5.4.2, Emergency arrangements	Compliance with Clause A.3.1 is not required for twin-engine installations
4.5	Annex I, A.2.5, Owner's manual	
All	Annex II, Components, 3.	

EN ISO 15652:2005 - Small craft - Remote steering system for inboard and mini jet boats

Clauses of EN ISO 15652:2005	Corresponding clauses of RCD	Comments

c. Recommendations for use.

Relevant Recommendations for Use (RFU): #77

Relevant Approved Recommendations for Use (ARFU): # 45

E.A.5.4.2 Emergency arrangements

a. Text of section 5.4.2 of Annex I, A of the Directive:

Sailboat and single-engine inboard powered motor boats with remote-controlled rudder steering systems shall be provided with emergency means of steering the craft at reduced speed.

b. No standard is envisioned.

c. Recommendations for use.

Relevant Recommendations for Use (RFU): # 71

Relevant Approved Recommendations for Use (ARFU): # 45

E.A.5.5 Gas system

a. Text of section 5.5 of Annex I, A of the Directive:

Gas systems for domestic use shall be of the vapour-withdrawal type and shall be designed and installed so as to avoid leaks and the risk of explosion and be capable of being tested for leaks. Materials and components shall be suitable for the specific gas used to withstand the stresses and exposures found in the marine environment.

Each appliance shall be equipped with a flame failure device effective on all burners. Each gas-consuming appliance must be supplied by a separate branch of the distribution system, and each appliance must be controlled by a separate closing device. Adequate ventilation must be provided to prevent hazards from leaks and products of combustion.

All craft with a permanently installed gas system shall be fitted with an enclosure to contain all gas cylinders. The enclosure shall be separated from the living quarters, accessible only from the outside and ventilated to the outside so that any escaping gas drains overboard. Any permanent gas system shall be tested after installation.

b. Relevant parts of harmonised standards:

EN ISO 10239:2000/AC:2002 - Small craft - Liquefied petroleum gas (LPG) systems

Clauses of EN ISO 10239:2000/AC:2002	Corresponding clauses of RCD	Comments
4.2	5.5 of Annex I, A, Gas system Gas systems for domestic use shall be 'vapour-withdrawal' type	The standard sets requirements for an on-board gas installation
4, 5, 6, 7, 8, 11	Designed and installed to avoid leaks and risk of explosion	
10	Capable of being tested for leaks	
4.1, 5.6, 5.7, 6.2.1, 6.4, 6.5.1, 6.5.4, 7.1	Materials and components to withstand marine environment	
7.3	Flame failure device on all burners	
6.6	Each appliance to have separate branch of distribution system and each appliance to have separate closing system	
8	Adequate ventilation to prevent hazard from leaks	
7.6, 9 (Annex A), 13	Adequate ventilation to prevent hazards from products of combustion	

8.2, 8.3	An enclosure shall contain all gas cylinders permanently installed Enclosure shall be: (i) separated from living quarters; (ii) accessible only from the outside; (iii) ventilated only to outside.	
10	Gas systems shall be tested after installation	
7.7, 7.9, 11	5.6.1 of Annex I, A, Fire protection Installation shall take account of risk of fire from open flame devices	
12 (Annex C)	2.5 of Annex I, A, Owner's manual	

- c. Semi fixed systems based on portable devices is considered as permanently installed.

E.A.5.6 Fire protection

a. Text of section 5.6.1 and 5.6.2 of Annex I, A of the Directive:

E.A.5.6.1 General

The type of equipment installed and the layout of the craft shall take account of the risk and spread of fire. Special attention shall be paid to the surroundings of open flame devices, hot areas or engines and auxiliary machines, oil and fuel overflows, uncovered oil and fuel pipes and avoiding electrical wiring above hot areas of machines.

E.A.5.6.2 Fire-fighting equipment

Craft shall be supplied with fire-fighting equipment appropriate to the fire hazard, or the position and capacity of fire fighting equipment appropriate to the fire hazard shall be indicated. The craft shall not be put into service until the appropriate fire fighting equipment is in place. Petrol engine enclosures shall be protected by a fire extinguishing system that avoids the need to open the enclosure in the event of fire. Where fitted, portable fire extinguishers shall be readily accessible and one shall be so positioned that it can easily be reached from the main steering position of the craft.

b. Relevant parts of harmonised standards:

EN ISO 9094-1:2003 - Small craft - Fire protection

Part 1: Craft with hull length of up to and including 15 m

Clauses of EN ISO 9094-1:2003	Corresponding clauses of RCD	Comments
4.2	Annex I, A.3.8 – Escape	Requirements for escape routes and openings
4.4.1	Annex I, A.5.1.1 – Inboard engine	Engine space insulating materials (see also E.5.1.1)
3, 4, 5, 6, 7, 8, 9, Annex A	Annex I, A.5.6.1 - Fire protection, general	General requirements for fire protection
5,6,7,9	Annex I, A.5.6.2 – Fire-fighting equipment	Requirements for fire-fighting equipment
10, Annex B	Annex I, A.2.5 - Owner's Manual	

EN ISO 9094-2:2002 - Small craft - Fire protection

Part 2: Craft with hull length of over 15m and up to 24 m

Clauses of EN ISO 9094-2	Corresponding clauses of RCD	Comments
4.2, 4.3	Annex I, A.3.8 – Escape	Requirements for escape routes and openings
4.5.2	Annex I, A.5.1.1 – Inboard engine	Engine space insulating materials (see also E.5.1.1)
3, 4, 5, 6, 7, 8, 9, Annex A	Annex I, A.5.6.1 - Fire protection, general	General requirements for fire protection
5,6,7,9	Annex I, A.5.6.2 – Fire-fighting equipment	Requirements for fire-fighting equipment
10, Annex B	Annex I, A.2.5 - Owner's Manual	

c. Craft meet the RCD with the position and capacity of fire extinguisher(s) indicated (labelled), but can not be put into service and operation until they are in place.

d. Recommendations for use.

Relevant Recommendations for Use (RFU):

61

E.A.5.7 Navigation lights

a. Text of section 5.7 of Annex I, A of the Directive:

Where navigation lights are fitted, they shall comply with the 1972 COLREGS or CEVNI regulations, as appropriate.

b. Relevant regulations: 1972 COLREGS or CEVNI as amended.

See also RFU # 27 (design and construction only)

Non-harmonised standard: Draft standard prEN ISO 16180 Small craft – Electric navigation lights is being prepared to support the application of COLREG for navigation lights.

c. Recommendations for use.

Relevant Approved Recommendations for Use (ARFU):

27

E.A.5.8 Discharge prevention and installations facilitating the delivery ashore of waste

a. Text of section 5.8 of Annex I, A of the Directive:

Craft shall be constructed so as to prevent the accidental discharge of pollutants (oil, fuel, etc.) overboard.

Craft fitted with toilets shall have either:

- (a) holding tanks, or*
- (b) provision to fit holding tanks.*

Craft with permanently installed holding tanks shall be fitted with a standard discharge connection to enable pipes of reception facilities to be connected with the craft discharge pipeline.

In addition, any through-the-hull pipes for human waste shall be fitted with valves which are capable of being secured in the closed position.

b. Relevant parts of harmonised standards:

EN ISO 8099:2000 Small craft - Waste water retention and treatment - Toilet waste retention systems

Clauses of EN ISO 8099:2000	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.8, Discharge prevention	The standard sets requirements for on-board toilet systems and holding tanks
12	Annex I, A.2.5, Owner's manual	

c. Craft with toilets shall always have a provision to fit holding tanks if no such tanks are fitted. The requirement may be met by providing any suitable space for fitting holding tanks. This space need not be maintained solely for the purpose of fitting a holding tank, but can be any space that could be adapted if needed.

“Capable of being secured in the closed position” can be met by securing the valve opening/closing device in the closed position, for example by securing a seacock lever arm in the closed position mechanically by a bolt, wire etc.

Note that EN ISO 8099 does not include requirements relating to accidental discharge overboard of pollutants such as fuel and oil.

E.A.6 INFLATABLE BOATS AND RIBS

a. Text of the Directive Article 1 (3):

For the purposes of this Directive the following definitions shall apply:

(a) "recreational craft": any boat of any type intended for sports and leisure purposes of hull length from 2,5 m to 24 m, measured according to the harmonised standard, regardless of the means of propulsion; the fact that the same boat could be used for charter or for recreational boating training shall not prevent it being covered by this Directive when it is placed on the Community market for recreational purposes

b. Relevant parts of harmonised standards:

All the relevant essential requirements, including the stability and buoyancy requirements, for inflatable boats and rigid hull inflatable boats are covered by one harmonised standard.

EN ISO 6185 Small craft - Inflatable boats

Part 1:2001 Boats with a motor maximum power rating of 4,5 kW

Clauses of EN ISO 6185-1:2001	Corresponding clauses of the Directive Annex I, A	Comments
	1. Boat design categories	Part 1 Inflatable boats shall be assigned to Boat Design Category D only
8	2.2 Builder's plate	The Builder's Plate must also include the CE mark and Boat Design Category. It is not a requirement of the Directive to show maximum engine power on the Builder's Plate, but this must be given in Owner's Manual
6.7	2.3 Means of reboarding	
6.11	2.4 Visibility for steering	
9	2.5 Owner's manual	Maximum engine power must be included in Owner's Manual
4, 5.1, 5.2, 5.4, 5.5, 5.6, 5.12, 6.5, 6.6, 7, B.2	3.1 Structure	
6.3	3.2 Stability and freeboard	
3, 6.8, 6.10	3.3 Buoyancy and flotation	
5.7	3.4 Openings in hull	
5.7, 7.5	3.5 Flooding	
6.1, 6.4	3.6 Manufacturer's maximum load	
5.11, 7.3	3.9 Anchoring, towing	

6.2, 6.9, 7.1, 7.2, B.4	4. Handling characteristics	
5.8, 5.9	5.4 Steering system	

EN ISO 6185 Small craft - Inflatable boats

Part 2:2001 Boats with a motor power rating of 4,5 kW to 15 kW inclusive

Clauses of EN ISO 6185-2:2001	Corresponding clauses of RCD	Comments
	1. Boat design categories	Boats may be assigned to Boat Design Category C if they are required by clause 7.1 to be tested in a significant wave height of 600mm. Other Part 2 boats shall be assigned Category D
8	2.2 Builder's plate	The Builder's Plate must also include the CE mark and Boat Design Category. It is not a requirement of the Directive to show maximum engine power on the Builder's Plate, but this must be given in Owner's Manual
6.7	2.3 Means of reboarding	
6.11	2.4 Visibility for steering	
9	2.5 Owner's manual	Maximum engine power must be included in Owner's Manual
4, 5.1, 5.2, 5.4, 5.5, 5.6, 5.12, 6.5, 6.6, 7, A.2	3.1 Structure	
6.3	3.2 Stability and freeboard	
3, 6.8, 6.10	3.3 Buoyancy and flotation	
5.7	3.4 Openings in hull	
5.7, 7.6	3.5 Flooding	
6.1, 6.4	3.6 Manufacturer's maximum load	
5.11, 7.3	3.9 Anchoring, towing	
6.2, 6.9, 7.1, 7.3, A.4	4. Handling characteristics	
5.8, 5.9	5.4 Steering system	

EN ISO 6185 Small craft - Inflatable boats

Part 3:2001 Boats with a motor power rating of 15 kW and greater

Clauses of EN ISO 6185-3:2001	Corresponding clauses of the RCD	Comments
	1. Boat design categories	Boats of Type 8, Offshore, may be assigned to Boat Design Category B. Other Part 3 boats shall be Category C or D
8	2.2 Builder's plate	The Builder's Plate must also include the CE mark and Boat Design Category. It is not a requirement of the Directive to show maximum engine power on the Builder's Plate, but this must be given in Owner's Manual
6.7	2.3 Means of reboarding	
6.11	2.4 Visibility for steering	
9	2.5 Owner's manual	Maximum engine power must be included in Owner's Manual
4, 5.1, 5.2, 5.4, 5.5, 5.6, 5.11, 6.5, 6.6, 7	3.1 Structure	
6.3	3.2 Stability and freeboard	Note: Some versions of the published national standard include an incorrect Annex Z The comment given above under clause 1 reflects the correct wording of the annex.
3, 6.8, 6.10	3.3 Buoyancy and flotation	
5.7	3.4 Openings in hull	
5.7, 7.6, 7.8	3.5 Flooding	
6.1, 6.4	3.6 Manufacturer's maximum load	
6.12	3.7 Liferaft stowage	
5.10, 7.4	3.9 Anchoring, towing	
6.2, 6.9, 7.1, 7.3, 7.7	4. Handling characteristics	
5.14	5.1.2, 5.2.2 Ventilation	
5.13	5.2 Fuel system	
5.12	5.3 Electrical system	
5.8	5.4 Steering system	

prEN ISO 6185-4:2001 Small craft - Inflatable boats

Part 4 - Boats greater than 8m overall length – Draft under development

Note that the comments in the above tables are important with respect to assigning the Boat Design Category.

E.A.7 PERSONAL WATERCRAFT

a. Text of the Directive Article 1 (3):

For the purposes of this Directive the following definitions shall apply:

"personal watercraft": a vessel less than 4 m in length which uses an internal combustion engine having a water jet pump as its primary source of propulsion and designed to be operated by a person or persons sitting, standing or kneeling on, rather than within the confines of, a hull;

b. Relevant parts of harmonised standards:

All the relevant essential requirements, including the stability and buoyancy requirements, for personal watercraft are covered by one harmonised standard.

EN ISO 13590:2003/AC:2004 Small craft – Personal Watercraft – Construction and system installation requirements

(to be completed in line with annexes ZA and ZB of the standards)

Clauses of EN ISO 13590:2003/AC:2004	Corresponding clauses of the Directive	Comments

E.B. ESSENTIAL REQUIREMENTS FOR EXHAUST EMISSIONS FROM

Propulsion engines shall comply with the following essential requirements for exhaust emissions.

E.B.1 ENGINE IDENTIFICATION**E.B.1.1**

a. Text of section B.1.1 of Annex I of the Directive:

Each engine shall be clearly marked with the following information:

- *engine manufacturer's trademark or trade-name,*
- *engine type, engine family, if applicable,*
- *a unique engine identification number,*
- *CE marking, if required under Article 10.*

b. Relevant parts of harmonised standards:

Actually, there are no standards envisaged.

c. Recommendations for use.

Relevant Recommendations for Use (RFU):

68, #69

E.B.1.2

a. Text of section B.1.2 of Annex I of the Directive:

These marks must be durable for the normal life of the engine and must be clearly legible and indelible. If labels or plates are used, they must be attached in such a manner that the fixing is durable for the normal life of the engine, and the labels/plates cannot be removed without destroying or defacing them.

b. Relevant parts of harmonised standards:

Actually, there are no standards envisaged.

c. Recommendations for use.

Relevant Recommendations for Use (RFU):

68, #69

E.B.1.3

a. Text of section B.1.3 of Annex I of the Directive:

These marks must be secured to an engine part necessary for normal engine operation and not normally requiring replacement during the engine life.

b. Relevant parts of harmonised standards:

Actually, there are no standards envisaged.

c. Recommendations for use.

Relevant Recommendations for Use (RFU): # 68, #69

E.B.1.4

a. Text of section B.1.4 of Annex I of the Directive:

These marks must be located so as to be readily visible to the average person after the engine has been assembled with all the components necessary for engine operation.

b. Relevant parts of harmonised standards:

Actually, there are no standards envisaged.

c. Recommendations for use.

Relevant Recommendations for Use (RFU): # 68, #69

E.B.2 EXHAUST EMISSION REQUIREMENTS

a. Text of section B.2 of Annex I of the Directive:

Propulsion engines shall be designed, constructed and assembled so that when correctly installed and in normal use, emissions shall not exceed the limit values obtained from the following table:

Table 1

Type	Carbon Monoxide $CO = A + B/P_N^n$ g/kWh			Hydrocarbons $HC = A + B/P_N^n$ g/kWh			Nitrogen oxides NO_x g/kWh	Particulates PT g/kWh
	A	B	n	A	B	n		
Two-stroke spark ignition	150,0	600,0	1,0	30,0	100,0	0,75	10,0	Not applicable
Four-stroke spark ignition	150,0	600,0	1,0	6,0	50,0	0,75	15,0	Not applicable
Compression ignition	5,0	0	0	1,5	2,0	0,5	9,8	1,0

Where A, B and n are constants in accordance with the table, P_N is the rated engine power in kW and the exhaust emissions are measured in accordance with the harmonised standard (EN ISO 8178-1:1996).

For engines above 130 kW either E3 (IMO) or E5 (recreational marine) duty cycles may be used.

The reference fuels to be used for the emissions test for engines fuelled with petrol and diesel shall be as specified in Directive 98/69/EC (Annex IX, Tables 1 and 2), and for those engines fuelled with Liquefied Petroleum Gas as specified in Directive 98/77/EC.

b. Relevant parts of non-harmonised standards:

EN ISO 8178-1:1996 - Reciprocating internal combustion engines

It should be noted that different parts of EN ISO 8178 may need to be referred to for application of the exhaust emission tests.

Clauses of EN ISO 8178-1:1996	Corresponding clauses of the Directive	Comments
All clauses are applicable		

c. Reference is made to 130 kW as this is the engine power limit that IMO applies. For diesel engines the E3 (IMO) or E5 (recreational marine) duty cycles may also be used for engine power below 130 kW. Petrol engines should use the E4 duty cycle.

The specifications of these reference fuels as specified in Directive 98/69/EC are given in Annex IX table 1 (petrol fuel) and table 2 (diesel fuel). If, in the light of evolution of technical knowledge and new scientific evidence amendments to the specification for reference fuels become necessary, these should be adopted using the Regulatory Committee procedure provided for in Article 6a.

d. Recommendations for use.

Relevant Recommendations for Use (RFU):

68, #69, #72

E.B.3 DURABILITY

a. Text of section B.3 of Annex I of the Directive:

The manufacturer of the engine shall supply engine installation and maintenance instructions, which if applied should mean that the engine in normal use will continue to comply with the above limits throughout the normal life of the engine and under normal conditions of use.

This information shall be obtained by the engine manufacturer by use of prior endurance testing, based on normal operating cycles, and by calculation of component fatigue so that the necessary maintenance instructions may be prepared by the manufacturer and issued with all new engines when first placed on the market.

The normal life of the engine is considered to mean:

- (a) inboard or stern drive engines with or without integral exhaust: 480 hours or 10 years, whichever occurs first;*
- (b) personal watercraft engines: 350 hours or 5 years, whichever occurs first;*
- (c) outboard engines: 350 hours or 10 years, whichever occurs first.*

b. Relevant parts of harmonised standards:

Actually, there are no standards envisaged.

c. Recommendations for use.

Relevant Recommendations for Use (RFU):

68, #69

E.B.4 OWNER'S MANUAL

a. Text of section B.4 of Annex I of the Directive:

Each engine shall be provided with an Owner's Manual in the Community language or languages, which may be determined by the Member State in which the engine is to be marketed. This manual shall:

- (a) *Provide instructions for the installation and maintenance needed to assure the proper functioning of the engine to meet the requirements of paragraph 3, (Durability);*
- (b) *Specify the power of the engine when measured in accordance with the harmonised standard.*

b. Relevant parts of harmonised standards:

EN ISO 8665:2006 – Small Craft - Marine propulsion engines and systems - Power measurements and declarations

Clauses of EN ISO 8665:2006	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.4, Handling	This standard is relevant only to the engine Manufacturer. It defines the required method of measuring engine power. The power of the engine measured according to this standard shall be declared by the engine Manufacturer in the owner's manual supplied with the engine.

The engine power and speed may alternatively be presented as a power curve (see also notes on calculation of the Power/displacement ratio in Annex I.C)

c. Language, translation and scope of Owner's Manual

A procedure shall be established for the particular information, as required by the Directive, to be included in the language required in the area where the product is put on the market..

A generic Owner's Manual, if relevant is acceptable. It may have provisions for filling out specific model information by hand.

d. Recommendations for use.

Relevant Recommendations for Use (RFU):

68, #69

E.C. ESSENTIAL REQUIREMENTS FOR NOISE EMISSIONS

E.C.1 NOISE EMISSION LEVELS

E.C.1.1

a. Text of section C.1.1 of Annex I of the Directive:

Recreational craft with inboard or stern drive engines without integral exhaust, personal watercraft and outboard engines and stern drive engines with integral exhaust shall be designed, constructed and assembled so that noise emissions measured in accordance with tests defined in the harmonised standard shall not exceed the limit values in the following table:*

Table 2

Single Engine Power In kW	Maximum Noise Pressure Level = L_{pASmax} In dB
$P_N \leq 10$	67
$10 < P_N \leq 40$	72
$P_N > 40$	75

where P_N = rated engine power in kW at rated speed and L_{pASmax} = maximum noise pressure level in dB.

For twin-engine and multiple-engine units of all engine types an allowance of 3 dB may be applied.

b. Relevant parts of harmonised standards:

EN ISO 14509-1:2000/A1:2004 and Amendment 1: Small craft - Measurement of sound pressure level of airborne noise emitted by powered recreational craft

Clauses of EN ISO 14509-1:2000/A1:2004	Corresponding clauses of RCD	Comments
All clauses in Annex ZB are applicable		

c. Recommendations for use.

Relevant Recommendations for Use (RFU):

66

* EN ISO 14509

E.C.1.2

a. Text of section C.1.2 of Annex I of the Directive:

As an alternative to noise measurement tests, recreational craft with inboard engine configuration or stern drive engine configuration, without integral exhaust, shall be deemed to comply with these noise requirements if they have a Froude number of ≤ 1.1 and a power displacement ratio of ≤ 40 and where the engine and exhaust system are installed in accordance with the engine manufacturer's specifications.

b. Relevant parts of harmonised standards:

Actually, there are no standards envisaged.

c. Recommendations for use.

Relevant Recommendations for Use (RFU):

66

E.C.1.3

a. Text of section C.1.3 of Annex I of the Directive:

"Froude number" shall be calculated by dividing the maximum boat speed $V(m/s)$ by the square root of the waterline length lwl (m) multiplied by a given gravitational constant ($g = 9,81 m/s^2$)

$$Fn = \frac{V}{\sqrt{(g \cdot lwl)}}$$

"Power displacement ratio" shall be calculated by dividing the engine power P (kW) by the boat's displacement $D(t) = P/D$

b. Relevant parts of harmonised standards:

Clauses of	Corresponding clauses of RCD	Comments

c. Displacement shall be measured in [t] at the performance test mass condition in accordance with EN ISO 8666:2002.

The total engine power (P) shall be measured in [kW] in accordance with EN ISO 8665:2006.

c. Recommendations for use.

Relevant Recommendations for Use (RFU):

66

E.C.1.4

- a. Text of section C.1.4 of Annex I of the Directive:

As a further alternative to noise measurement tests, recreational craft with inboard or stern drive engine configurations without integral exhaust, shall be deemed to comply with these noise requirements if their key design parameters are the same as or compatible with those of a certified reference boat to tolerances specified in the harmonised standard.

- b. Relevant parts of non-harmonised standards:

EN ISO 14509-2:2006 – Small craft - Measurement of airborne sound emitted by powered recreational craft – Part 2: Sound Assessment using reference craft
Part 2: Noise Assessment using reference craft

Clauses of EN ISO 14509-2:2006	Corresponding clauses of RCD	Comments
All clauses in Annex ZA are applicable		

- c. Recommendations for use.

Relevant Recommendations for Use (RFU):

66

E.C.1.5

- a. Text of section C.1.5 of Annex I of the Directive:

"Certified reference boat" shall mean a specific combination of hull/inboard engine or stern drive engine without integral exhaust that has been found to comply with the noise emission requirements, when measured in accordance with section 1.1, and for which all appropriate key design parameters and noise level measurements have been included subsequently in the published list of certified reference boats.

- b. Relevant parts of harmonised standards:

EN ISO 14509-2:2006 – Small craft - Measurement of airborne sound emitted by powered recreational craft – Part 2: Sound Assessment using reference craft

Clauses of EN ISO 14509-2:2006	Corresponding clauses of RCD	Comments
All clauses in Annex ZA are applicable		

c. Procedure to be applied to register a certified reference boat

The Technical Secretariat is maintaining and publishing the “list of certified reference boats” through the website of the RSG (www.rsg.be).

Manufacturers who want to add information on a certified reference boat to the list of certified reference boats should adapt to the following procedure:

- Download the form on key design parameters for the certified reference boat from the website.
- Fill in the form by giving complete information on the certified reference boat as requested.
- Send the form to the Notified Body, which has certified the conformity to noise emissions requirements in accordance with the pass-by-test for the certified reference boat.
- The Notified Body confirms the key design parameters given by the Manufacturer on the certified reference boat form
- The Notified Body sends the certified reference boat form, which is free from any information allowing the identification of the Manufacturer, to the Technical Secretariat for publication.
- The Technical Secretariat registers the received certified reference boat forms in a consecutive order by giving each reference boat a unique number and publishes them on the website of the RSG (www.rsg.be).
- The Technical Secretariat ensures that the received information can be traced back through the Notified Body to the Manufacturer, if required.

d. Recommendations for use.

Relevant Recommendations for Use (RFU):

66

E.C.2 OWNER'S MANUAL

a. Text of section C.2 of Annex I of the Directive:

For recreational craft with inboard engine or stern drive engines with or without integral exhaust and personal watercraft, the Owner's Manual required under Annex I.A Section 2.5, shall include information necessary to maintain the craft and exhaust system in a condition that, insofar as is practicable, will ensure compliance with the specified noise limit values when in normal use.

For outboard engines, the Owner's Manual required under Annex I.B.4 shall provide instructions necessary to maintain the outboard engine in a condition, that insofar as is practicable, will ensure compliance with the specified noise limit values when in normal use.

b. Relevant parts of harmonised standards:

Actually, there are no standards envisaged.

c. Introduces a new requirement for the owner's manual supplied with the recreational craft or personal watercraft to specify information on maintenance of the craft, engine and exhaust system to ensure continued compliance with the noise limits. With respect to stern drive engines with integral exhaust this requirement is satisfied by keeping a copy of the owner's manual for the engine with the owner's manual for the boat, provided that the owner's manual for the engine provides instructions as laid out in the paragraph below for outboard engines.

The owner's manual supplied with the outboard engine shall include information on maintenance for continued compliance with the noise emission limits.

d. Recommendations for use.

Relevant Recommendations for Use (RFU):

66

F. GUIDELINES FOR ASSESSMENT OF COMPONENTS

Certain components are specifically mentioned in the Directive:

"-whereas the essential requirements constitute the criteria by which recreational craft, partly completed craft and their components when separate and when installed must comply".

The certification requirements imply third party intervention, which has to take place before the component is placed on the market. However, if the components in F3, F4, and F5 below are made specifically by or for the craft builder, the conformity assessment has to be applied for by the craft builder.

CE marking for RCD is only permitted for components listed in Annex II.

The following are listed in Annex II:

F.1. Ignition protected equipment for inboard and stern drive engines

a. Relevant parts of harmonised standards:

EN 28846:1993/A1:2000 Small craft - Electrical devices - Protection against ignition of surrounding flammable gases (ISO 8846:1990)

Clauses of EN 28846:1993/A1:2000	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.1.1, Inboard engines	Sets requirements for ignition-protecting equipment
4.1, 5	Annex I, A.5.2.1, Fuel system	
6	Annex I, A.5.3, Electrical system	
4.2, 6	Annex II, Components, 1	

For further clarification reference is made to chapter E.A. 5.1.1 of these guidelines.

F.2. Start-in-gear protection devices for outboard engines

a. Relevant standards:

Harmonised standards:

EN ISO 11547:1995/A1:2000- Small craft - Start-in-gear protection – see E.A.5.1.4
Outboard engines starting

F.3. Steering wheels, steering mechanisms and cable assemblies

a. Relevant parts of harmonised standards:

EN ISO 8847: 2004/AC: 2005- Small craft - Steering gear - wire rope and pulley systems (ISO 8847)

EN 28848:1993/A1:2000 - Small craft - Remote steering system (ISO 8848:1990)

EN 29775:1993/A1:2000 - Small craft - Remote steering systems for outboard motors of 15 kW to 40 kW power (ISO 9775:1990)

EN ISO 10592:1994/A1:2000 - Small craft - Hydraulic steering gear

EN ISO 13929:2001 - Small craft - Geared link steering

EN ISO 15652:2005 - Small craft - Remote steering system for inboard and mini jet boats

Clauses of EN ISO 15652:2005	Corresponding clauses of RCD	Comments
All clauses are applicable		

See E.A.5.4 for details of steering standards.

F.4. Fuel tanks intended for fixed installations and fuel hoses

a. Relevant parts of harmonised standards:

EN ISO 10088:2001 Small craft - Permanently installed fuel systems and fixed fuel tanks (actually under review)– see E.A.5.2.

EN ISO 7840:2004 Small craft - Fire resistant fuel hoses

Clauses of EN ISO 7840:2004	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.1.1, Inboard Engine Annex I, A.5.2.1, Fuel system, General Annex I, A.5.6.1 – Fire protection, General Annex II, Components, 4	Specifies requirements for fire resistant fuel hoses that may be used in engine compartments.

EN ISO 8469: 2006 Small craft - Non-fire-resistant hoses

Clauses of EN ISO 8469: 2006	Corresponding clauses of RCD	Comments
All clauses	Annex I, A.5.1.1, Inboard Engine Annex I, A.5.2.1, Fuel system, General Annex I, A.5.6.1, Fire protection, General Annex II, Components, 4	Specifies requirements for fuel hoses that may not be used in engine compartments

Note 1: Portable fuel systems (as specified by EN ISO 13591) are outside the scope of the Directive, i.e. will not receive any CE marking according to this Annex II.

Note 2: Fuel tanks that are an integral part of the structure of the craft are also excluded from the scope of Annex II and therefore should not be CE marked.

F.5. Prefabricated hatches and portlights

a. Relevant parts of harmonised standards:

EN ISO 12216:2002 Small craft - Windows, portlights, hatches, deadlights and doors - Strength and tightness requirements – see E.A.3.4.

b. The term "portlights" refers to windows in the hull.

G. CONFORMITY ASSESSMENT MODULES

The Recreational Craft Directive establishes procedures applying to the assessment of compliance with the essential safety requirements. These procedures comply with Council Decision No 93/465/EEC of 22 July 1993 concerning the modules for the various phases of the conformity assessment procedures and the rules for the affixing of the CE conformity marking, which are intended to be used in the technical harmonization Directives.

It is to be noted, amongst other points, from this Council Decision (in Annex), that:

1. The essential objective of a conformity assessment procedure is to enable the public authorities to ensure that products placed on the market conform to the requirements as expressed in the provisions of the Directives, in particular with regard to the health and safety of users and consumers,
2. Conformity assessment can be subdivided into modules, which relate to the design phase of products and to their production phase,
3. As a general rule a product must be subject to both phases before being able to be placed on the market if the results are positive.
4. Notified bodies should be encouraged to apply the modules without unnecessary burden for the economic operators. The Commission, in cooperation with the Member States, must ensure that close cooperation is organized between the Notified Bodies in order to ensure consistent technical application of the modules,
5. Whenever Directives provide the Manufacturer with the possibility of using modules based on quality assurance techniques, the Manufacturer must also be able to have recourse to a combination of modules not using quality assurance, and vice versa, except where the compliance with the requirements laid down by the Directives requires the exclusive application of a certain procedure.
6. Whenever the NB subcontracts testing or verifies subcontracted testing, etc.,..., it is the responsibility of the NB to ensure that the subcontractor has the facilities and meets the criteria for that function (Annex XIV).

a) Text of Article 8 of the Directive as amended

1. *Before placing on the market, and/or putting into service, products referred to in Article 1(1) the manufacturer or his authorised representative established within the Community shall apply the procedures referred to in paragraphs 2, 3 and 4 of this Article.*

In the case of post-construction assessment for recreational craft, if neither the manufacturer nor his authorised representative established within the Community fulfils the responsibilities for the product's conformity to this Directive, these can be assumed by any natural or legal person established within the Community who places the product on the market, and/or puts it into service, under his own responsibility. In such a case, the person who places the product on the market or puts it into service must lodge an application for a post-construction report with a notified body. The person who places the product on the market and/or puts it into service must provide the notified body with any available document and technical file referring to the first placing on the market of the product in the country of origin. The notified body shall examine the individual product and carry out calculations and other assessment to ensure its equivalent conformity with the relevant requirements of the Directive. In this case, the Builder's plate described in Annex I, 2.2 shall include the words "(Post-construction certificate)". The notified body shall draw up a report of conformity concerning the assessment carried out and shall inform the person who places the product on the market and/or puts it into service of his obligations. That person shall draw up a declaration of conformity (see Annex XV) and affix, or cause to be affixed, the CE mark accompanied by the distinguishing number of the relevant notified body on the product.

Note: Comments to post construction assessment see chapter I of this document

2. *With regard to design and construction of products referred to in Article 1(1)(a), the boat manufacturer or his authorised representative established in the Community shall apply the following procedures for boat design categories A, B, C and D as referred to in section 1 of Annex I.A:*

(a) for categories A and B:

(i) for boats from 2,5 m to 12 m hull length: the internal production control plus tests (module Aa) referred to in Annex VI, or the EC type-examination (module B) as described in Annex VII, supplemented by conformity to type (module C) referred to in Annex VIII, or any of the following modules: B+D, or B+E, or B+ F, or G or H;

(ii) for boats from 12 m to 24 m hull length: the EC type-examination (module B) referred to in Annex VII supplemented by conformity to type (module C) referred to in Annex VIII, or any of the following modules: B + D, or B+E, or B + F, or G or H;

(b) for category C:

(i) for boats from 2,5 m to 12 m hull length:

– where the harmonised standards relating to Sections 3.2 and 3.3 of Annex I.A are complied with: the internal production control (module A), referred to in Annex V, or internal production control plus tests (module Aa) referred to in Annex VI, or the EC type-examination (module B) as described in Annex VII, supplemented by conformity to type (module C) referred to in Annex VIII, or any of the following modules: B+D, or B+E, or B+F, or G, or H,

- *where the harmonised standards relating to Sections 3.2 and 3.3 of Annex I.A are not complied with: the internal production control plus tests (module Aa) referred to in Annex VI, or the EC type-examination (module B) as described in Annex VII, supplemented by conformity to type (module C) referred to in Annex VIII, or any of the following modules: B+D, or B+E, or B+F, or G, or H;*
- (ii) *for boats from 12 m to 24 m hull length: the EC type-examination (module B) referred to in Annex VII followed by conformity to type (module C) referred to in Annex VIII, or any of the following modules: B+D, or B+E, or B+F, or G or H;*
- (c) *for category D:*
 - for boats from 2,5 m to 24 m hull length: the internal production control (module A) referred to in Annex V, or the internal production control plus tests (module Aa) referred to in Annex VI, or the EC type-examination (module B) as described in Annex VII, supplemented by conformity to type (module C) referred to in Annex VIII, or any of the following modules: B+D, or B+E, or B+F or G or H;*
 - (d) *for personal watercraft:*
 - the internal production control (module A) referred to in Annex V, or the internal production control plus tests (module Aa) referred to in Annex VI, or the EC type-examination (module B) as described in Annex VII followed by conformity to type (module C) referred to in Annex VIII, or any of the following modules: B+D, or B+E, or B+F, or G or H;*
 - (e) *for components referred to in Annex II: any of the following modules: B+C, or B+D, or B+F, or G or H.*
- 3. *With regard to exhaust emissions:*
 - for products referred to in Article 1(1)(b), the engine manufacturer or his authorised representative established in the Community shall apply the EC type-examination (module B) as described in Annex VII followed by conformity to type (module C) referred to in Annex VIII, or any of the following modules: B+D, or B+E, or B+F, or G or H.*
- 4. *With regard to noise emissions:*
 - (a) *for products referred to in Article 1(1)(c)(i) and (ii), the boat manufacturer or his authorised representative established in the Community shall apply:*
 - (i) *where tests are conducted using the harmonised standard 2 for noise measurement: either internal production control plus tests (module Aa) referred to in Annex VI, or unit verification (module G) referred to in Annex XI, or full quality assurance (module H) referred to in Annex XII;*
 - (ii) *where the Froude number and power displacement ratio method is used for assessment: either the internal production control (module A) referred to in Annex V, or the internal production control plus tests (module Aa)*

referred to in Annex VI, or unit verification (module G) referred to in Annex XI, or full quality assurance (module H) referred to in Annex XII;

(iii) where certified reference boat data, established in accordance with point (i), is used for assessment: either internal production control (module A) referred to in Annex V, or internal production control plus supplementary requirements (module Aa) referred to in Annex VI, or unit verification (module G) referred to in Annex XI, or full quality assurance (module H) referred to in Annex XII;

(b) for products referred to in Article 1(1)(c)(iii) and (iv), the personal watercraft/engine manufacturer or his authorised representative established in the Community shall apply: internal production control plus supplementary requirements referred to in Annex VI (module Aa) or module G or H.

b) Comments

These conformity assessment procedures applying to products covered by the Directive can be summarized in the following table:

Available Modular Choice

	Design Category/ Product type	2.5m ≤ hull length <12m	12m ≤ hull length ≤ 24m	
	Design & Construction	A "Ocean"	Aa, B+C, B+D, B+E, B+F, G or H	B+C, B+D, B+E, B+F, G or H
B "Offshore"				
C "Inshore"		A, Aa, B+C, B+D, B+E, B+F, G or H If harmonised standard for stability and buoyancy are complied with		
		Aa, B+C, B+D, B+E, B+F, G or H If harmonised standard for stability and buoyancy are not complied with		
D "Sheltered Waters"		A, Aa, B+C, B+D, B+E, B+F, G or H		
PWC		A, Aa, B+C, B+D, B+E, B+F, G or H		
Components		B+C, B+D, B+F, G or H		
Exhaust	Recreational Marine Propulsion Engines.	B+C, B+D, B+E, B+F, G or H		

		Pass-by test	Reference Boat concept	F _n + P/D method
Noise	Outboard engines, Personal Watercraft and stern drive engines with integral exhaust	Aa, G or H		
	Recreational craft with inboard engines or stern drive engines without integral exhaust	Aa, G or H	A, Aa, G or H	A, Aa, G or H

c. Recommendations for use.

Relevant Recommendations for Use (RFU): # 67, #74

Relevant Approved Recommendations for Use (ARFU): # 15, #36, # 58, # 59

G.1. INTERNAL PRODUCTION CONTROL (Module A)

a) Text of Annex V of the Directive:

1. *The manufacturer or his authorized representative established within the Community, who carries out the obligations laid down in point 2, ensures and declares that the products concerned satisfy the requirements of the Directive that apply to them. The manufacturer or his authorized representative established within the Community shall affix the CE marking to each product and draw up a written declaration of conformity (see Annex XV).*

2. *The manufacturer shall establish the technical documentation described in paragraph 3 and he or his authorized representative established within the Community shall keep it for a period ending at least 10 years after the last product has been manufactured at the disposal of the relevant national authorities for inspection purposes.*

Where neither the manufacturer nor his authorized representative is established within the Community, the obligation to keep the technical documentation available shall be the responsibility of the person who places the product on the Community market.

3. *Technical documentation shall enable the conformity of the products with the requirements of the Directive to be assessed. It shall, as far as relevant for such assessment, cover the design, manufacture and operation of the product (see Annex XIII).*

4. *The manufacturer or his authorized representative shall keep a copy of the declaration of conformity with the technical documentation.*

5. *The manufacturer shall take all measures necessary in order that the manufacturing process shall ensure compliance of the manufactured products with the technical documentation referred to in point 2 and with the requirements of the Directive that apply to them.*

b) Procedure to be applied for module A:

Manufacturer or his authorized representative:	Notified Body:
Design phase: - To ensure that the craft meets the requirements of the Directive. - It is the obligation of the Manufacturer or his authorized representative in the Community to <ul style="list-style-type: none"> ▪ establish the technical documentation in accordance with Annex XIII of the Directive (see Chapter H of RSG Guidelines for guidance) ▪ establish the Owner's Manual in accordance with Annex I.A.2.5 and I.C.2 of the Directive. The technical documentation and a copy of	Design phase (specimen): No intervention

Manufacturer or his authorized representative:	Notified Body:
<p>the Declaration of Conformity shall be kept for at least 10 years with either</p> <ul style="list-style-type: none"> - the Manufacturer, or - the Manufacturer's authorized representative in the Community, or - the person who places the craft on the Community market 	
<p>Production phase: It is the obligation of the manufacturer to take all measures necessary in order that the manufacturing process shall ensure compliance of the manufactured craft with the technical documentation and the applicable parts of the essential safety requirements.</p> <p>To draw up a Declaration of Conformity and affix the CE mark</p>	<p>Production phase: No intervention</p>

c. Recommendations for use.

Relevant Recommendations for Use (RFU): # 15, #67

Relevant Approved Recommendations for Use (ARFU): # 09, #36, # 58

G.2. INTERNAL PRODUCTION CONTROL PLUS TESTS (Module Aa, Option 1)

a) Text of Annex VI of the Directive:

This module consists of module A, as referred to in Annex V, plus the following supplementary requirements:

A. Design and construction:

On one or several boats representing the production of the manufacturer one or more of the following tests, equivalent calculation or control shall be carried out by the manufacturer or on his behalf:

- (a) *test of stability according to section 3.2 of the Essential Requirements (Annex IA);*
- (b) *test of buoyancy characteristics according to section 3.3 of the Essential Requirements (Annex IA).*

Provisions common to both variations:

These tests or calculations or control shall be carried out under the responsibility of a notified body chosen by the manufacturer.

B. Noise Emissions:

For recreational craft fitted with inboard or stern drive engines without integral exhaust and for personal watercraft:

On one or several craft representing the production of the craft manufacturer, the noise emission tests defined in Annex I.C shall be carried out by the craft manufacturer, or on his behalf, under the responsibility of a notified body chosen by the manufacturer.

For outboard engines and stern drive engines with integral exhaust:

On one or several engines of each engine family representing the production of the engine manufacturer, the noise emission tests defined in Annex I.C shall be carried out by the engine manufacturer, or on his behalf, under the responsibility of a notified body chosen by the manufacturer.

Where more than one engine of an engine family is tested, the statistical method described in Annex XVII shall be applied to ensure conformity of the sample.

b) Recommendations for use

Relevant Recommendations for Use (RFU):	#66
Relevant Approved Recommendations for Use (ARFU):	#06, #07, #09, #15, #36, #58, #59

In discussion with the Notified Body, the Manufacturer may establish boat families for noise assessment (compare RFU #66, chapter J).

Procedure to be applied for module Aa:

<p>Manufacturer or his authorized representative:</p>	<p>Notified Body:</p>
<p>Design phase:</p> <p>In addition to requirements laid out in the table for module A, the manufacturer needs to agree with the Notified Body (NB) on tests, procedures, equivalent calculations, or controls to be undertaken, the number of these, and the number of boats upon which they have to apply.</p>	<p>Design phase :</p> <p>Module Aa requires Notified Body (NB) intervention only for stability, buoyancy and noise for the craft under review.</p> <p>It shall be the NB's responsibility to ensure that agreed tests, procedures, equivalent calculations or controls are assessed to demonstrate conformity with Annex I, A par. 3.2 & 3.3 of the ESR and Annex I.C. of the ESR.</p> <p>These tests or controls may be carried out by the craft manufacturer and witnessed and/or verified by the NB. Alternatively the tests may be conducted by another party appointed by the manufacturer and agreed upon by the NB and witnessed and/or verified by the NB.</p> <p>When conformity with the ESR of the Directive is established, an official document is issued by the NB. It must be titled as Examination Report</p> <p>Design and construction</p> <p>To perform this assessment, the NB must review any technical documentation established by the Manufacturer which deals exclusively with stability and freeboard (A.3.2) and buoyancy and flotation (A.3.3) as well as with cockpit drainage, openings and windows, noise as appropriate.</p> <p>Tests, procedures calculations, or other controls are performed on one or several boats representing the production of the Manufacturer, which are identified in the technical documentation.</p> <p>A complete new stability assessment of the craft may not be necessary if analysis by extrapolation and/or interpolation is based on already verified types very close to the craft in question, and the relevant requirements are obviously fulfilled with a large margin.</p> <p>This may be the case when:</p> <ul style="list-style-type: none"> • a few well defined items are removed or added • a few well defined measures are decreased or increased <p>Noise Emission</p> <p>For noise assessment, boat families may be used to identify the boats representing the production (see RFU #66).</p>
<p>Production phase:</p> <p>See table for module A</p>	<p>Production phase:</p> <p>No intervention</p>

G.3. EC TYPE-EXAMINATION (Module B)**a) Text of Annex VII of the Directive:**

1. *A notified body ascertains and attests that a specimen, representative of the production envisaged, meets the provisions of the Directive that apply to it.*
2. *The application for the EC type-examination shall be lodged by the manufacturer or his authorized representative established within the Community with a notified body of his choice.*

The application shall include:

- *the name and address of the manufacturer and, if the application is lodged by the authorized representative, his name and address in addition,*
- *a written declaration that the same application has not been lodged with any other notified body,*
- *the technical documentation, as described in point 3.*

The applicant shall place at the disposal of the notified body a specimen, representative of the production envisaged and hereinafter called 'type' ().*

The notified body may request further specimens if needed for carrying out the test programme.

3. *The technical documentation shall enable the conformity of the product with the requirements of the Directive to be assessed. It shall, as far as relevant for such assessment, cover the design, manufacture and functioning of the product (see Annex XIII).*
4. *The notified body shall:*
 - 4.1 *examine the technical documentation, verify that the type has been manufactured in conformity with the technical documentation and identify the elements which have been designed in accordance with the relevant provisions of the standards referred to in Article 5, as well as the components which have been designed without applying the relevant provisions of those standards;*
 - 4.2. *perform or have performed the appropriate examinations and necessary tests to check whether, where the standards referred to in Article 5 have not been applied, the solutions adopted by the manufacturer meet the Essential Requirements of the Directive;*
 - 4.3. *perform or have performed the appropriate examinations and necessary tests to check whether, where the manufacturer has chosen to apply the relevant standards, these have actually been applied;*
 - 4.4. *agree with the applicant the location where the examinations and necessary tests shall be carried out.*
5. *Where the type meets the provisions of the Directive, the notified body shall issue an EC type-examination certificate to the applicant. The certificate shall contain the name and address of the manufacturer, conclusions of the examination, conditions for its validity and the necessary data for identification of the approved type.*

A list of the relevant parts of the technical documentation shall be annexed to the certificate and a copy kept by the notified body.

If the manufacturer is denied a type certification, the notified body shall provide detailed

reasons for such denial.

6. *The applicant shall inform the notified body that holds the technical documentation concerning the EC type-examination certificate of all modifications to the approved product which must receive additional approval where such changes may affect the conformity with the essential requirements or the prescribed conditions for use of the product. This additional approval is given in the form of an addition to the original EC type-examination certificate.*
7. *Each notified body shall communicate to the other notified bodies the relevant information concerning the EC type-examination certificates and additions issued and withdrawn.*
8. *The other notified bodies may receive copies of the EC type-examination certificates and/or their additions. The annexes to the certificates shall be kept at the disposal of the other notified bodies.*
9. *The manufacturer or his authorized representative shall keep with the technical documentation copies of EC type-examination certificates and their additions for a period ending at least 10 years after the last product has been manufactured.*

Where neither the manufacturer nor his authorized representative is established within the Community, the obligation to keep the technical documentation available shall be the responsibility of the person who places the product on the Community market.

- (*) *A type may cover several versions of the product provided that the differences between the versions do not affect the level of safety and the other requirements concerning the performance of the product.*

b) Recommendations for use

Relevant Recommendations for Use (RFU): #67, #78

Relevant Approved Recommendations for Use (ARFU): #10, #15, #17, #36, #43, #58, #59

ARFU # 10 refers to point 4.2 and especially to “perform or have performed” (to be revised according to 2003/44/EC)

ARFU # 17 refers to point 4.1 (to be revised according to 2003/44/EC):

1. To verify that the type has been manufactured in conformity with the technical documentation. the NB must visit the workshop.
2. In case the manufacturing process is not relevant for the EC-type examination, no such visit is required.(RFU #17)

c) Procedure to be applied for module B:

Manufacturer or his authorized representative or person placing the product on the market	Notified Body:
Design phase (specimen) To ensure that the product meets the requirements of the Directive, it is the obligation of the Manufacturer or his authorized representative in the Community to: <ul style="list-style-type: none"> ▪ apply for “EC Type Examination”. The 	Design phase (specimen) A Notified Body (NB) shall ascertain and attest that a specimen, representative of the production envisaged, meets the provisions of the Directive. The NB shall: <ul style="list-style-type: none"> ▪ witness all tests deemed necessary, or endorse the corresponding test reports.

Manufacturer or his authorized representative or person placing the product on the market	Notified Body:
<p>application shall be lodged with a Notified Body (NB) of his choice.</p> <ul style="list-style-type: none"> ▪ confirm by a written declaration that he has not lodged an application for EC type examination of his product with another NB ▪ agree with the NB on examinations, tests, procedures, equivalent calculations, or controls to be undertaken. ▪ provide before the beginning of the manufacturing process the technical information needed by the NB at this stage. ▪ places at the disposal of the NB one (or more) specimen(s), which is (are) representative of the production envisaged ▪ ensure at the time of inspection that the relevant technical documentation is available to the NB. ▪ establish the technical documentation in accordance with Annex XIII of the Directive (see Chapter H of RSG Guidelines for guidance) and the Owner's Manual in accordance with Annex I.A.2.5 and I.C.2 of the Directive. <p>The technical documentation and a copy of the Declaration of Conformity shall be kept for at least 10 years with either</p> <ul style="list-style-type: none"> - the Manufacturer, or - the Manufacturer's authorized representative in the Community, or - the person who places the craft on the Community market <p>Modifications to approved product</p> <p>The Manufacturer or the authorized representative must inform the NB of all modifications to the approved product which may affect the Essential Safety Requirements. These changes must receive additional approval from the NB.</p>	<ul style="list-style-type: none"> ▪ examine the technical documentation established by the manufacturer covering all objectives stated by the essential safety requirements of the Directive. ▪ check the compliance of a specimen representative of the production with the examined technical documentation. <p>When conformity to the Directive has been verified, an EC Type-Examination Certificate is issued by the NB. The certificate contains the name and address of the manufacturer, conclusions of the examination, conditions for its validity and the necessary data for identification of the approved type.</p> <p>Craft</p> <p>The technical documentation shall be in compliance with Annex XIII, detailed in a further paragraph of this RSG Guideline (Chapter H). This documentation can not be limited to leaflets for boat shows, and is to be composed of drawings, list of applied standards or documented solutions followed, documents, list of CE marked components including their DOCs, test reports, construction procedures, as appropriate clearly.</p> <p>In general the assessment involves visiting the workshop and witnessing the different steps of the construction of the specimen (from hull construction till the final manufacturer's tests); and include the examination of construction processes in particular, for example composite construction which is highly dependant on the production procedures. Test specimens may support the verification</p> <p>The following minimum survey activities must be performed (when applicable by random checks) with regards to</p> <ul style="list-style-type: none"> a) <u>construction</u> <ul style="list-style-type: none"> -if necessary for the assessment of the structure, surveys shall be carried out during selected phases of the project. -verification of dimensions and position of structural members and enforcements -visual inspection of construction details

Manufacturer or his authorized representative or person placing the product on the market	Notified Body:
	<p>-perform spot check of the specimen's construction process. (laminating, welding, gluing, etc.)</p> <p>b) <u>installations</u> Verification of technical installations, e.g.:</p> <ol style="list-style-type: none"> a. Engine and engine spaces b. Fuel system c. Electrical system d. Steering system e. Gas system f. Fire protection g. Navigation lights h. Discharge prevention i. CE marked components <p>c) <u>final inspection and trials</u></p> <ul style="list-style-type: none"> - Craft identifications, positioning, size ,composition and affixing. - Builder's plate - Protection from falling overboard and means of reboarding - Visibility from the main steering position - Liferaft stowage - Escape (when applicable) - Anchoring, mooring and towing. - Stability tests and handling tests when applicable. <p>Components and Engines</p> <ul style="list-style-type: none"> • Witness all tests deemed necessary, or endorse the corresponding test reports.
Production phase: Not covered by this module	Production phase: Not covered by this module

To fulfil the requirements as outlined in RCD Annex VII.6 (report of all modifications to the approved product) the EC type certificate holders may follow the procedures as outlined in RFU #78.

G.4. CONFORMITY TO TYPE (Module C)

a) The text of Annex VIII of the Directive:

1. *The manufacturer or his authorised representative established within the Community ensures and declares that the products concerned are in conformity with the type as described in the EC type-examination certificate and satisfy the requirements of the Directive that applies to them. The manufacturer shall affix the CE marking to each product and draw up a written declaration of conformity (see Annex XV).*
2. *The manufacturer shall take all measures necessary to ensure that the manufacturing process assures compliance of the manufactured products with the type as described in the EC type-examination certificate and with the requirements of the Directive that apply to them.*
3. *The manufacturer or his authorised representative shall keep a copy of the declaration of conformity for a period ending at least 10 years after the last product has been manufactured.*

Where neither the manufacturer nor his authorised representative is established within the Community, the obligation to keep the technical documentation available shall be the responsibility of the person who places the product on the Community market (see Annex XIII).

4. *With regard to the assessment of conformity with the exhaust emission requirements of this Directive and if the manufacturer is not working under a relevant quality system as described in Annex XII, a notified body chosen by the manufacturer may carry out or have carried out product checks at random intervals. When the quality level appears unsatisfactory or when it seems necessary to verify the validity of the data presented by the manufacturer, the following procedure shall be used:*

An engine is taken from the series and subjected to the test described in Annex I.B. Test engines shall have been run in, partially or completely, according to the manufacturer's specifications. If the specific exhaust emissions of the engine taken from the series exceed the limit values according to Annex I.B, the manufacturer may ask for measurements to be done on a sample of engines taken from the series and including the engine originally taken. To ensure the conformity of the sample of engines defined above with the requirements of the Directive, the statistical method described in Annex XVII shall be applied.

b) Procedure to be applied for module C:

This module is to be used in conjunction with module B (EC type-examination).

<p>Manufacturer or his authorized representative or person placing the craft on the market:</p>	<p>Notified Body:</p>
<p>Design phase: Not covered by this module (see module B).</p>	<p>Design phase: Not covered by this module (see module B).</p>
<p>Production phase: It is the obligation of the Manufacturer to take all measures necessary in order that the manufacturing process shall ensure compliance of the manufactured product with the technical documentation of the type and the applicable parts of the essential safety requirements. Note: In order to maintain the validity of the EC-type examination it is the Manufacturer's responsibility, as required under module B, to inform the Notified Body of any change that <u>may</u> affect the conformity with the essential requirements. Draw up the declaration of conformity, supply with each product and affix the CE mark.</p>	<p>Production phase: Exhaust Emissions: If the Manufacturer is not working under a relevant quality system as described in Annex XII, a Notified Body chosen by the Manufacturer may carry out or have carried out product checks at random intervals. Craft, components and engines in regards to Design and Construction as well as Noise Emissions: No intervention</p>

G.5. PRODUCTION QUALITY ASSURANCE (Module D)

a) Text of Annex IX of the Directive:

1. *The manufacturer who satisfies the obligations of point 2 ensures and declares that the products concerned are in conformity with the type as described in the EC type-examination certificate and satisfy the requirements of the Directive that apply to them. The manufacturer or his authorised representative established within the Community shall affix the CE marking to each product and draw up a written declaration of conformity (see Annex XV). The CE marking shall be accompanied by the distinguishing number of the notified body responsible for the monitoring as specified in point 4.*
2. *The manufacturer shall operate an approved quality system for production, final product inspection and testing as specified in paragraph 3 and shall be subject to monitoring as specified in point 4.*

3. Quality system

3.1. *The manufacturer shall lodge an application for assessment of his quality system with a notified body of his choice, for the products concerned.*

The application shall include:

- *all relevant information for the product category envisaged,*
- *the documentation concerning the quality system,*
- *where appropriate, the technical documentation of the approved type (see Annex XIII) and a copy of the EC type-examination certificate.*

3.2. *The quality system shall ensure compliance of the products with the type as described in the EC type-examination certificate and with the requirements of the Directive that apply to them.*

All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic and orderly manner in the form of written policies, procedures and instructions. The quality system documentation must permit a consistent interpretation of the quality programmes, plan, manuals and records.

It shall contain in particular an adequate description of

- *the quality objectives and the organisational structure, responsibilities and powers of the management with regard to product quality,*
- *the manufacturing, quality control and quality assurance techniques, processes and systematic actions that will be used,*
- *the examinations and tests that will be carried out before, during and after manufacture, and the frequency with which they will be carried out,*
- *the quality records, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.,*
- *the means to monitor the achievement of the required product quality and the effective operation of the quality system.*

3.3. *The notified body shall assess the quality system to determine whether it satisfies the requirements referred to in point 3.2. It shall presume conformity with these requirements in respect of quality systems that implement the relevant harmonised standard.*

The auditing team shall have at least one member with experience of evaluation in the product technology concerned. The evaluation procedure shall include an inspection visit to

the manufacturer's premises.

The decision shall be notified to the manufacturer. The notification shall contain the conclusions of the examination and the reasoned assessment decision.

3.4. The manufacturer shall undertake to fulfil the obligations arising out of the quality system as approved and to uphold it so that it remains adequate and efficient. The manufacturer or his authorised representative shall keep the notified body that has approved the quality system informed of any intended updating of the quality system.

The notified body shall evaluate the modifications proposed and decide whether the amended quality system will still satisfy the requirements referred to in paragraph 3.2 or whether a reassessment is required.

It shall notify its decisions to the manufacturer. The notification shall contain the conclusions of the examination and the reasoned assessment decision.

4. Surveillance under the responsibility of the notified body

4.1. The purpose of surveillance is to make sure that the manufacturer duly fulfils the obligations arising out of the approved quality system.

4.2. The manufacturer shall allow the notified body entrance for inspection purposes to the locations of manufacture, inspection and testing, and storage and shall provide it with all necessary information, in particular:

- the quality system documentation,*
- the quality records, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.*

4.3. The notified body shall periodically carry out audits to make sure that the manufacturer maintains and applies the quality system and shall provide an audit report to the manufacturer.

4.4. Additionally the notified body may pay unexpected visits to the manufacturer. During such visits the notified body may carry out, or cause to be carried out, tests to verify that the quality system is functioning correctly, if necessary. The notified body shall provide the manufacturer with a visit report and, if a test has taken place, with a test report.

5. The manufacturer shall, for a period ending at least 10 years after the last product has been manufactured, keep at the disposal of the national authorities:

- the documentation referred to in the second indent of the second subparagraph of point 3.1,*
- the updating referred to in the second subparagraph of point 3.4,*
- the decision and reports from the notified body which are referred to in the final subparagraph of point 3.4, point 4.3 and point 4.4.*

6. Each notified body shall give the other notified bodies the relevant information concerning the quality system approvals issued and withdrawn.

b) Recommendations for use:

Relevant Recommendations for Use (RFU): #73

Relevant Approved Recommendations for Use (ARFU): #15, #36, #59

c) Procedure to be applied:

This module is to be used in conjunction with module B (EC type-examination). This module

refers to a quality system operated by the builder.

The assessment under this module shall be performed by a NB, which may be different from the NB who assessed the product under module B.

The two different following cases are to be considered:

1st Case: Quality system already approved:

As mentioned in A.3.3 of the text of the Directive, the NB shall presume conformity with the requirements referred to in point A.3.2 in respect of quality systems that implement the relevant harmonised standard. In conformity with the Council Decision 93/465/CEE, the harmonised standard referred to is the **EN ISO 9001:2000 as applicable**.

Even if a quality system is certified according to the standard by an accredited certification body, the NB has the obligation to assess the system, in order to give approval. The purpose of module D is product certification, while the purpose of the harmonised standard is system certification. Accordingly, the assessment by the NB of quality systems, which are certified, should focus on the product-related parts of the system. The extent of the assessment has to be decided by the NB in each case. The NB may require modification of the system.

When the approval of the NB is partly based on the system certification of an accredited certification body, the surveillance by the NB should concentrate on:

- Validity of the certificate
- Review of audit reports and corrective action
- Focus on product related procedures and end product, rather than the system in general, during audits.

2nd Case: Quality system not approved

When the NB assesses an uncertified quality system normal procedures for system certification should be applied, again bearing in mind that product certification is the main object of the approval. Reference should be made to relevant parts of **EN ISO 9001:2000 as applicable** and not to the entire standard.

The above also applies to the surveillance of the quality system by the NB.

Manufacturer or his authorized representative or person placing the craft on the market:	Notified Body:
Design phase: Not covered by this module (see module B).	Design phase: Not covered by this module. (see module B).
Production phase: Quality system: Implementing a quality system including all processes in the company with a description of procedures ensuring conformity of the <u>product production</u> with the applicable essential	Production phase: Check the quality System upon the following: 1st option: Check validity of certificates and proper implementation of the quality system in particular with respect to the harmonised standard regarding points concerning the production phase of the product.

<p>requirements</p>	<p>2nd option: Proper implementation of the quality system in general with respect to the harmonised standard but with main focus on the design phase of the product.</p> <p>Procedures to ensure that relevant standards are considered with regard to the Essential requirements and the design category envisaged for the <u>production process</u>.</p>
<p>For both options:</p> <ul style="list-style-type: none"> • Ensure that appropriate contracts are made with subcontractors to ensure that the quality system requirements are applied by them. 	<p>For both options:</p> <ul style="list-style-type: none"> • If deemed necessary the Notified Body may have the right to assess as well proper consideration of quality system procedures at the subcontractor.
<ul style="list-style-type: none"> • The Manufacturer or his authorised representative established within the Community shall affix the CE marking to each product and draw up a written declaration of conformity (see Annex XV). The CE marking shall be accompanied by the distinguishing number of the Notified Body responsible for the monitoring 	<ul style="list-style-type: none"> • Audit report to client with information of any findings RECOMMENDATION FOR IMPROVEMENT or DEFICIENCIES non conformities. If applicable follow up audit to assess any improvement of the system. • If deficiencies are found, which cannot be solved in a foreseeable amount of time, the Manufacturer may be recommended to apply for another module • If at the audit satisfies the requirements of Module D, certification is issued. With this the Manufacturer is authorized to state the Notified Body distinguishing number following the CE mark. • The audit report should inform about the next regular intermediate surveillance audit. • The validity of certificates and the sequence of intermediate audits shall follow the audit procedure as required by the harmonised standard.

d) Recommendations for use

Relevant Approved Recommendations for Use (ARFU):

#15, #59

G.6. PRODUCT VERIFICATION (Module F)**a) Text of Annex X of the Directive:**

1. *This module describes the procedure whereby a manufacturer or his authorised representative established within the Community checks and attests that the products subject to the provisions of point 3 are in conformity with the type as described in the EC type-examination certificate and satisfy the requirements of the Directive that apply to them.*
2. *The manufacturer shall take all measures necessary in order that the manufacturing process ensures conformity of the products with the type as described in the EC type-examination certificate and with the requirements of the Directive that apply to them. The manufacturer or his authorised representative established within the Community shall affix the CE marking to each product and shall draw up a declaration of conformity (see Annex XV).*
3. *The notified body shall carry out the appropriate examinations and tests in order to check the conformity of the product with the requirements of the Directive either by examination and testing of every product as specified in point 4 or by examination and testing of products on a statistical basis, as specified in point 5, at the choice of the manufacturer.*
 - 3a. *The manufacturer or his authorised representative shall keep a copy of the declaration of conformity for a period ending at least 10 years after the last product has been manufactured.*
4. *Verification by examination and testing of every product*
 - 4.1. *All products shall be individually examined and appropriate tests as set out in the relevant standard(s) referred to in Article 5 or equivalent tests shall be carried out in order to verify their conformity with the type as described in the EC type-examination certificate and the requirements of the Directive that apply to them.*
 - 4.2. *The notified body shall affix, or cause to be affixed; its distinguishing number to each approved product and draw up a written certificate of conformity relating to the tests carried out.*
 - 4.3. *The manufacturer or his authorised representative shall ensure that he is able to supply the notified body's certificates of conformity on request.*
5. *Statistical verification*
 - 5.1. *The manufacturer shall present his products in the form of homogeneous lots and shall take all measures necessary in order that the manufacturing process ensures the homogeneity of each lot produced.*
 - 5.2. *All products shall be available for verification in the form of homogeneous lots. A random sample shall be drawn from each lot. Products in a sample shall be individually examined and appropriate tests as set out in the relevant standard(s) referred to in Article 5, or equivalent tests, shall be carried out to ensure their conformity with the requirements of the Directive which apply to them and to determine whether the lot is accepted or rejected.*
 - 5.3. *The statistical procedure shall use the following elements:*
 - *the statistical method to be applied,*
 - *the sampling plan with its operational characteristics.*

For the assessment of conformity with the exhaust emission requirements, the procedure defined in Annex XVII shall be applied.

5.4. *In the case of accepted lots, the notified body shall affix, or cause to be affixed, its distinguishing number to each product and shall draw up a written certificate of conformity relating to the tests carried out. All products in the lot may be put on the market except those products from the sample which were found not to be in conformity.*

If a lot is rejected, the notified body or the competent authority shall take appropriate measures to prevent the putting on the market of that lot. In the event of frequent rejection of lots the notified body may suspend the statistical verification.

The manufacturer may, under the responsibility of the notified body, affix the latter's distinguishing number during the manufacturing process.

5.5. *The manufacturer or his authorised representative shall ensure that he is able to supply the notified body's certificates of conformity on request.*

b) Recommendations for use

Relevant Approved Recommendations for Use (ARFU): #15, #36, #59

c) Procedures to be applied

This module is to be used in conjunction with Module B (EC Type-examination)

The assessment under this module shall be performed by a NB, which may be different from the NB who assessed the product under module B.

Manufacturer or his authorized representative or person placing the product on the market:	Notified Body:
Design phase: Not covered by this module.	Design phase: Not covered by this module.
Production phase: It is the obligation of the Manufacturer to take all measures necessary in order that the manufacturing process shall ensure compliance of the manufactured product with the technical documentation of the type and the applicable parts of the essential safety requirements. Note: In order to maintain the validity of the EC-type examination it is the Manufacturer's responsibility, as required under module B, to inform the Notified Body of any change that may affect the conformity with the essential requirements.	Production phase: <u>Verification by examination of every product.</u> This verification shall include all relevant essential requirements. <u>Statistical verification.</u> This verification shall include all relevant essential requirements. The application of statistical verification may follow the procedures outlined in Annex 17 of the Directive also for design and construction.

The Manufacturer chooses the verification procedure by examination and testing of every product or by statistical verification of products when presented in homogeneous lots.

For verification by examination of every product.

The Manufacturer shall make the product available for verification.

For statistical verification.

The Manufacturer shall make all products available for verification in the form of homogeneous lots.

Affixes the CE marking to each product.

The Manufacturer may, under the responsibility of the Notified Body, affix the latter's distinguishing number during the manufacturing process.

Draws up a declaration of conformity

Keeps all relevant technical information, the Notified Body's certificate of conformity and a copy of the declaration of conformity at the disposal of the surveillance authorities for a period of 10 years after the last product has been manufactured.

G.7. UNIT VERIFICATION (Module G)

a) Text of Annex XI of the Directive

1. *This module describes the procedure whereby the manufacturer ensures and declares that the product concerned, which has been issued with the certificate referred to in point 2, conforms to the requirements of the Directive that apply to it. The manufacturer or his authorised representative established within the Community shall affix the CE marking to the product and draw up a declaration of conformity (see Annex XV).*
2. *The notified body shall examine the individual product and carry out the appropriate tests as set out in the relevant standard(s) referred to in Article 5, or equivalent tests, to ensure its conformity with the relevant requirements of the Directive.
The notified body shall affix, or cause to be affixed; it's distinguishing number on the approved product and shall draw up a certificate of conformity concerning the tests carried out.*
3. *The aim of the technical documentation is to enable conformity with the requirements of the Directive to be assessed and the design, manufacture and operation of the product to be understood (see Annex XIII).*

b) Recommendations for use

Relevant Recommendations for Use (RFU): #67, #73
 Relevant Approved Recommendations for Use (ARFU): #15, #36, #59

c) Procedure to be applied for module G:

Manufacturer or his authorized representative or person placing the product on the market:	Notified Body:
Design and construction phase: To ensure that individual product meets the requirements of the Directive, it is the obligation of the Manufacturer or his authorized representative in the Community to: <ul style="list-style-type: none"> • apply for the Unit Verification and places at the disposal of the Notified Body (NB) the product. • provide before the beginning of the manufacturing process the technical information needed by the NB at this stage • agree with the NB on examinations, tests, procedures, equivalent calculations, or controls to be undertaken • ensure at the time of inspection that the relevant technical documentation is available to the NB. • demonstrate the conformity of the product by tests and/or calculations where necessary • 	Design and construction phase: A Notified Body (NB) shall ascertain and attest that the presented product meets the provisions of the Directive. The NB shall: <ul style="list-style-type: none"> ▪ witness all tests deemed necessary, or endorse the corresponding test reports ▪ verify calculations ▪ examine the technical documentation established by the manufacturer covering all relevant objectives stated by the essential safety requirements of the Directive. The documentation shall be in compliance with Annex XIII, detailed in a further paragraph of this RSG Guideline (Chapter H). ▪ check the compliance of the product, with the examined technical documentation When conformity to the Directive has been verified, a Certificate of Conformity is issued by the NB. This

<ul style="list-style-type: none"> establish the technical documentation in accordance with Annex XIII of the Directive and the Owner's Manual in accordance with Annex I.A.2.5 and I.C.2 of the Directive. 	<p>certificate shall contain the name and address of the Manufacturer, conclusions of the examination and tests carried out, conditions for its validity and the necessary data for identification of the approved product</p> <p>The Notified Body shall affix, or cause to be affixed, it's distinguishing number on the approved product.</p> <p>Craft (design and construction)</p> <p>The technical documentation shall be in compliance with Annex XIII, detailed in a further paragraph of this RSG Guideline (Chapter H). This documentation can not be limited to leaflets for boat shows, and is to be composed of drawings, list of applied standards or documented solutions followed, documents, list of CE marked components including their DOCs, test reports, construction procedures, as appropriate.</p> <p>In general the assessment involves visiting the workshop and witnessing the different steps of the construction of the craft (from hull construction till the final manufacturer's tests); and include the examination of construction processes in particular, for example composite construction which is highly dependant on the production procedures. Test specimens may support the verification</p> <p>The following minimum survey activities must be performed (when applicable by random checks) with regards to</p> <ol style="list-style-type: none"> <u>Construction</u> <p>If necessary for the assessment of the structure, surveys shall be carried out during selected phases of the project.</p> <ul style="list-style-type: none"> verification of dimensions and position of structural members and enforcements visual inspection of construction details spot check of the specimen's construction process. (laminating, welding, gluing, etc.) <ol style="list-style-type: none"> <u>Installations</u> <p>Verification of technical installations, i.e.:</p> <ul style="list-style-type: none"> Engine and engine spaces Fuel system Engine and engine spaces Electrical system Steering system Gas system Fire protection Navigation lights
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	<ul style="list-style-type: none"> ▪ Discharge prevention ▪ CE marked components <p>3. <u>Final inspection and trials</u></p> <ul style="list-style-type: none"> ▪ Craft identifications positioning, size, composition and affixing. ▪ Builder's plate ▪ Protection from falling overboard and means of reboarding ▪ Visibility from the main steering position ▪ Liferaft stowage ▪ Escape (when applicable) ▪ Anchoring, mooring and towing. ▪ Stability tests and handling tests when applicable <p>Components (design and construction): Apply the corresponding ISO standard and witness all tests deemed necessary, or endorse the corresponding test reports.</p> <p>Emissions</p> <p>1. <u>Noise emissions</u> Apply EN ISO 14509 or alternative methods given by the directive (e.g. P/D ratio, certified reference boat)</p> <p>2. <u>Exhaust emissions</u> Apply EN ISO 8178-1</p> <p>Note: For post-construction assessment refer to chapter I of the RSG Guidelines.</p>
<p>Production phase</p> <p>Not covered by this module</p> <p>Draw up the declaration of conformity, supply with each product and affix the CE mark.</p> <p>The Manufacturer shall, under the responsibility of the Notified Body, affix the latter's distinguishing number.</p>	<p>Production phase</p> <p>Not covered by this module</p>

G.8. FULL QUALITY ASSURANCE (Module H)**a) Text of Annex XII of the Directive**

1. *This module describes the procedure whereby the manufacturer who satisfies the obligations of paragraph 2 ensures and declares that the products concerned satisfy the requirements of the Directive that apply to them. The manufacturer or his authorised representative established within the Community shall affix the CE marking to each product and draw up a written declaration of conformity (see Annex XV). The CE marking shall be accompanied by the distinguishing number of the notified body responsible for the surveillance as specified in point 4.*

2. *The manufacturer shall operate an approved quality system for design, manufacture and final product inspection and testing as specified in point 3 and shall be subject to surveillance as specified in point 4.*

3. Quality system

3.1. *The manufacturer shall lodge an application for assessment of his quality system with a notified body.*

The application shall include:

- *all relevant information for the product category envisaged,*
- *the quality system's documentation.*

3.2. *The quality system shall ensure compliance of the products with the requirements of the Directive that apply to them.*

All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic and orderly manner in the form of written policies, procedures and instructions. This quality system documentation shall ensure a common understanding of the quality policies and procedures such as quality programmes, plans, manuals and records.

It shall contain in particular an adequate description of:

- *the quality objectives and the organisational structure, responsibilities and powers of the management with regard to design and product quality,*
- *the technical design specifications, including standards, that will be applied and, where the standards referred to in Article 5 will not be applied in full, the means that will be used to ensure that the essential requirements of the Directive that apply to the products will be met,*
- *the design control and design verification techniques, processes and systematic actions that will be used when designing the products pertaining to the product category covered,*
- *the corresponding manufacturing, quality control and quality assurance techniques, processes and systematic actions that will be used,*
- *the examinations and tests that will be carried out before, during and after manufacture, and the frequency with which they will be carried out,*
- *the quality records, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.,*

- *the means to monitor the achievement of the required design and product quality and the effective operation of the quality system.*

3.3. *The notified body shall assess the quality system to determine whether it satisfies the requirements referred to in point 3.2. It shall presume compliance with these requirements in respect of quality systems that implement the relevant harmonised standard (EN 29001).*

The auditing team shall have at least one member experienced as an assessor in the product technology concerned. The evaluation procedure shall include an assessment visit to the manufacturer's premises.

The decision shall be notified to the manufacturer. The notification shall contain the conclusions of the examination and the reasoned assessment decision.

3.4. *The manufacturer shall undertake to fulfil the obligations arising out of the quality system as approved and to uphold it so that it remains adequate and efficient.*

The manufacturer or his authorised representative shall keep the notified body that has approved the quality system informed of any intended updating of the quality system.

The notified body shall evaluate the modifications proposed and decide whether the amended quality system will still satisfy the requirements referred to in paragraph 3.2 or whether a reassessment is required.

It shall notify its decision to the manufacturer. The notification shall contain the conclusions of the examination and the reasoned assessment decision.

4. *EC surveillance under the responsibility of the notified body*

4.1. *The purpose of surveillance is to make sure that the manufacturer duly fulfils the obligations arising out of the approved quality system.*

4.2. *The manufacturer shall allow the notified body entrance for inspection purposes to the locations of design, manufacture, inspection and testing, and storage, and shall provide it with all necessary information, in particular:*

- *the quality system documentation,*
- *the quality records as foreseen by the design part of the quality system, such as results of analyses, calculations, tests, etc.,*
- *the quality records as foreseen by the manufacturing part of the quality system, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.*

4.3. *The notified body shall periodically carry out audits to make sure that the manufacturer maintains and applies the quality system and shall provide an audit report to the manufacturer.*

4.4. *Additionally the notified body may pay unexpected visits to the manufacturer. At the time of such visits, the notified body may carry out tests or have them carried out in order to check the proper functioning of the quality system where necessary; it shall provide the manufacturer with a visit report and, if a test has been carried out, with a test report.*

5. *The manufacturer shall, for a period ending at least 10 years after the last product has been manufactured, keep at the disposal of the national authorities:*

- *the documentation referred to in the second indent of the second subparagraph of point 3.1,*
 - *the updating referred to in the second subparagraph of point 3.4,*
 - *the decisions and reports from the notified body which are referred to in the final subparagraph of point 3.4, point 4.3 and point 4.4.*
6. *Each notified body shall forward to the other notified bodies the relevant information concerning the quality system approvals issued and withdrawn.*

b) Recommendations for use

Relevant Recommendations for Use (RFU):	#67
Relevant Approved Recommendations for Use (ARFU):	#15, #36, #59

c) Procedure to be applied:

The two different following cases are to be considered:

1st Case: Quality system already approved:

As mentioned in 3.3 of the text of the Directive, the NB shall presume conformity with the requirements referred to in point 3.2 in respect of quality systems that implement the relevant harmonised standard. In conformity with the Council Decision 93/465/CEE, the harmonised standard referred to is the EN 29001 EN ISO 9001:2000.

Even if a quality system is certified according to the standard by an accredited certification body, the NB has the obligation to assess the system, in order to give approval. The purpose of module H is product certification, while the purpose of the harmonised standard is system certification. Accordingly, the assessment by the NB of quality systems, which are certified, should focus on the product-related parts of the system. The extent of the assessment has to be decided by the NB in each case. The NB may require modification of the system.

When the approval of the NB is partly based on the system certification of an accredited certification body, the surveillance by the NB should concentrate on:

- Validity of the certificate
- Review of audit reports and corrective action
- Focus on product related procedures and end product, rather than the system in general, during audits.

2nd Case: Quality system not approved

When the NB approves an uncertified quality system normal procedures for system certification should be applied, again bearing in mind that product certification is the main object of the approval. Reference should be made to relevant parts of EN 29001 EN ISO 9001:2000 and not to the entire standards.

The above also applies to the surveillance of the quality system by the NB.

<p>Manufacturer or his authorized representative or person placing the craft on the market:</p>	<p>Notified Body:</p>
<p>Design phase:</p> <p>Quality system:</p> <ul style="list-style-type: none"> Implementing a quality system comprising all process in the company and including a description of procedures ensuring conformity of the <u>product design</u> with the applicable essential requirements. <p><i>The quality system shall ensure compliance of the products with the requirements of the Directive that apply to them (see point 3.2)</i></p>	<p>Design phase:</p> <p>Check the quality System upon the following:</p> <ul style="list-style-type: none"> 1st option: Check validity of QS certificates plus the proper implementation of the quality system in particular with respect to the harmonised standard regarding points concerning the design phase of the product. 2nd option: Proper implementation of the quality system in general with respect to the harmonised standard but with main focus on the design phase of the product. <p>For 1st and 2nd option:</p> <ul style="list-style-type: none"> Information on harmonised standards used to ensure compliance with the Directive Description of alternative methods used for points where harmonised standards are not complied with. Procedures to ensure that relevant standards are considered with regard to the Essential requirements and the design category envisaged for the <u>design process</u>.
<p>Production phase:</p> <p>Quality system:</p> <p>Implementing a quality system including all processes in the company with a description of procedures ensuring conformity of the <u>product production</u> with the applicable essential requirements.</p> <p><i>The quality system shall ensure compliance of the products with the requirements of the Directive that apply to them (see point 3.2)</i></p>	<p>Production phase:</p> <p>Check the quality System upon the following:</p> <ul style="list-style-type: none"> 1st option: Check proper implementation of the quality system in particular with respect to the harmonised standard regarding points concerning the production phase of the product. 2nd option: Proper implementation of the quality system in general with respect to the harmonised standard but with main focus on the design phase of

	<p>the product.</p> <ul style="list-style-type: none"> • Procedures to ensure that relevant standards are considered with regard to the Essential requirements and the design category envisaged for the <u>production process</u>.
<p>For both options:</p> <ul style="list-style-type: none"> • Ensure that appropriate contracts are made with subcontractors to ensure that the quality system requirements are applied by them. 	<p>For both options:</p> <ul style="list-style-type: none"> • If deemed necessary the Notified Body may have the right to assess as well proper consideration of quality system procedures at the subcontractor.
<p>The Manufacturer shall undertake to fulfil the obligations arising out of the quality system as approved and to uphold it so that it remains adequate and efficient.</p> <p>The Manufacturer or his authorised representative shall keep the Notified Body that has approved the quality system informed of any intended updating of the quality system.</p>	<ul style="list-style-type: none"> • Audit report to client with information of any findings minor or mayor non conformities. If applicable follow up audit to assess any improvement of the system. • If at least after the second follow up audit the requirements of Module H are satisfied, certification is issued. The audit report should inform about the next regular intermediate surveillance audit. • The validity of certificates and the sequence of intermediate audits shall follow the audit procedure as required by the harmonised standard.

G.9. PRODUCT QUALITY ASSURANCE (MODULE E)

a) Text of Annex XVI of the Directive

1. *This module describes the procedure whereby the manufacturer who satisfies the obligations of point 2 ensures and declares that the products concerned are in conformity with the type as described in the EC type-examination certificate and satisfy the requirements of the directive that apply to them. The manufacturer or his authorised representative established within the Community must affix the CE mark to each product and draw up a written declaration of conformity. The CE mark must be accompanied by the identification symbol of the notified body responsible for surveillance as specified in point 4.*

2. *The manufacturer must operate an approved quality system for final product inspection and testing as specified in point 3 and must be subject to surveillance as specified in point 4.*

3. Quality system

3.1. *The manufacturer must lodge an application for assessment of his quality system for the products concerned, with a notified body of his choice.*

The application must include:

- all relevant information for the product category envisaged,*
- the quality system's documentation,*
- if applicable, the technical documentation of the approved type and a copy of the EC type-examination certificate.*

3.2. *Under the quality system, each product must be examined and appropriate tests as set out in the relevant standard(s) referred to in Article 5 or equivalent tests shall be carried out in order to ensure its conformity with the relevant requirements of the directive. All the elements, requirements and provisions adopted by the manufacturer must be documented in a systematic and orderly manner in the form of written policies, procedures and instructions. This quality system documentation must ensure a common understanding of the quality programmes, plans, manuals and records.*

It must contain in particular an adequate description of:

- the quality objectives and the organisational structure, responsibilities and powers of the management with regard to product quality,*
- the examinations and tests that will be carried out after manufacture,*
- the means to monitor the effective operation of the quality system,*
- quality records, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.*

3.3. *The notified body must assess the quality system to determine whether it satisfies the requirements referred to in point 3.2.*

It presumes conformity with these requirements in respect of quality systems that implement the relevant harmonised standard.

The auditing team must have at least one member experienced as an assessor in the product technology concerned. The assessment procedure must include an assessment visit to the manufacturer's premises.

The decision must be notified to the manufacturer. The notification must contain the conclusions of the examination and the reasoned assessment decision.

- 3.4. *The manufacturer must undertake to fulfil the obligations arising from the quality system as approved and to maintain it in an appropriate and efficient manner.*

The manufacturer or his authorised representative must keep the notified body which has approved the quality system informed of any intended updating of the quality system.

The notified body must evaluate the modifications proposed and decide whether the modified quality system will still satisfy the requirements referred to in point 3.2 or whether a re-assessment is required.

It must notify its decision to the manufacturer. The notification must contain the conclusions of the examination and the reasoned assessment decision.

b) Recommendations for use

Relevant Recommendations for Use (RFU): #73

Relevant Approved Recommendations for Use (ARFU): #15, #36, #59

c) Procedure to be applied:

This module is to be used in conjunction with module B (EC type-examination). This module refers to a quality system operated by the builder.

The assessment under this module shall be performed by a NB, which may be different from the NB who assessed the product under module B.

The two different following cases are to be considered:

1st Case: Quality system already approved:

As mentioned in Annex XVI 3.3 of the text of the Directive, the NB shall presume conformity with the requirements referred to in point Annex XVI 3.2 in respect of quality systems that implement the relevant harmonised standard. In conformity with the Council Decision 93/465/CEE, the harmonised standard referred to is the EN 29003.

Even if a quality system is certified according to the standard by an accredited certification body, the NB has the obligation to assess the system, in order to give approval. The purpose of module E is product certification, while the purpose of the harmonised standard is system certification. Accordingly, the assessment by the NB of quality systems, which are certified, should focus on the product-related parts of the system. The extent of the assessment has to be decided by the NB in each case. The NB may require modification of the system.

When the approval of the NB is partly based on the system certification of an accredited certification body, the surveillance by the NB should concentrate on:

- Validity of the certificate
- Review of audit reports and corrective action
- Focus on product related procedures and end product, rather than the system in general, during audits.

2nd Case: Quality system not approved

When the NB approves an uncertified quality system normal procedures for system certification should be applied, again bearing in mind that product certification is the main object of the approval. Reference should be made to relevant parts of EN 29003 and not to the entire standards.

The above also applies to the surveillance of the quality system by the NB.

H. TECHNICAL DOCUMENTATION

Technical Documentation supplied by the Manufacturer

a) Text of Annex XIII of the Directive

The technical documentation referred to in Annexes V, VII, VIII, IX, XI and XVI must comprise all relevant data or means used by the manufacturer to ensure that components or craft comply with the essential requirements relating to them.

The technical documentation shall enable understanding of the design, manufacture and operation of the product, and shall enable assessment of conformity with the requirements of this Directive.

The documentation shall contain so far as relevant for assessment:

- (a) a general description of the type,*
- (b) conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.,*
- (c) descriptions and explanations necessary for the understanding of said drawings and schemes and the operation of the product,*
- (d) a list of the standards referred to in Article 5, applied in full or in part, and descriptions of the solutions adopted to fulfil the essential requirements when the standards referred to in Article 5 have not been applied,*
- (e) results of design calculations made, examinations carried out, etc.,*
- (f) test reports, or calculations namely on stability according to section 3.2 of the Essential Requirements and on buoyancy according to section 3.3 thereof (Annex I.A),*
- (g) exhaust emissions test reports demonstrating compliance with section 2 of the Essential Requirements (Annex I.B),*
- (h) noise emissions test reports or reference boat data demonstrating compliance with section 1 of the Essential Requirements (Annex I.C).*

Remarks:

In general the Technical Documentation below is applicable according to the Recreational Craft Directive, however an individual Notified Body may ask for further clarification. Alternative media, such as photos, are acceptable in place of drawings. Checklists only filled in on behalf of- or by the Manufacturer, without additional diagrams, specifications, drawings or other information as required are not acceptable.

ESR	ESR name	Documentation	Standard
A.1	Design Category	<p>General description of the type</p> <p>General product description:</p> <ul style="list-style-type: none"> - type of product - main particulars, (e.g. Length, Beam, Draft) - boat design category 	EN ISO 8666:2002
A.2.1	Craft identification	<p>General description of the type</p> <p>CIN – code</p>	EN ISO 10087:2006
A.2.2	Builder's plate	<p>General description of the type</p> <p>Builders plate, including Builders plate information</p>	EN ISO 14945:2004/AC:2005
A.2.3	Protection from falling overboard and means of reboarding	<p>Design and manufacturing drawings</p> <p>Deck plan</p> <p>Detail drawings</p> <ul style="list-style-type: none"> - hand grips, railing, toe rails etc... Reboarding means <p><i>e.g: Protection: Choice of option and solutions specs of fittings required in prevention of falling overboard.</i></p>	EN ISO 15085:2003
A.2.4	Visibility from the main steering position	<p>Motor driven craft only</p> <p>Drawing with compliance to 11591</p>	EN ISO 11591:2000
A.2.5	Owner's manual	<p>Description of the craft and its operation.</p> <p>Manual should draw special attention to risk of fire and flooding and shall contain the information listed in 2.2, 3.6 and 4 as well as the unladen weight of the craft.</p> <p>List of applied standards or documented solution followed</p>	EN ISO 10240:2004
A.3.1	Structure	<p>Design and manufacturing drawings</p> <p>General arrangement</p> <p>Lines plan, if used for assessment</p> <p>Deck plan</p> <p>Construction plan (with cross sections over bulkheads and several frames)</p>	<p>EN ISO 12215-1:2000</p> <p>EN ISO 12215-2:2002</p> <p>EN ISO 12215-3:2002</p> <p>EN ISO 12215-4:2002</p>

ESR	ESR name	Documentation	Standard
		<p>Detail drawings</p> <ul style="list-style-type: none"> - engine mounts and other strength critical items - keel - hull connection - deck - hull connection - mast support - chainplates - strong points - cockpit drainage <p>Laminate details</p> <p>Manufacturing details</p> <ul style="list-style-type: none"> List of fitted materials GRP schedule / Sandwich schedule Details of welding procedure Details of laminate construction / laminate procedure (e.g. resin / core) Details of wood construction <p>Calculations / Tests</p> <ul style="list-style-type: none"> Scantlings calculations (if available) <p><i>e.g: Material specification for structural members, glues, hull, deck superstructures: Structural members in side view, plan view, cross section; laminate plans for FRP construction; structural details, transitions, connections; engine foundation, thrust bearing, propeller bracket; built-in tanks (dimensions, pressure head, fastening); Mast step/mast pillar, Ballast keel : Geometry, weight, centre of gravity; Keel root (configuration) and bolts (number, location, anchoring in keel, material), transition of forces into hull; welding specification Rudder: Geometry, rudder stock dimensions, incorporation of stock in rudder blade; bearings (material, dimensions, working loads, seats); shaft tube, Chain plates: Related to rig dimensions; material, dimensions, bolt diameters, transition of forces into hull structure, details of fitting attachments.</i></p>	<p>prEN ISO 12215-5 prEN ISO 12215-6 prEN ISO 12215-7 prEN ISO 12215-8 prEN ISO 12215-9</p>
A.3.2	Stability and freeboard	<p>Design and manufacturing drawings</p> <ul style="list-style-type: none"> Sail plan, if used for assessment Lines plan, if used for assessment General arrangement 	<p>EN ISO 12217-1:2002 EN ISO 12217-2:2002</p>

ESR	ESR name	Documentation	Standard
		Calculations / Tests Stability calculations, test reports <i>e.g: CG position (calculation, inclining test); hydrostatic data; proof of stability for relevant load cases; closing appliances</i>	EN ISO 12217-3:2002
A.3.2	Buoyancy and flotation	Design and manufacturing drawings Calculations / Tests Buoyancy calculations <i>e.g. :(where applicable) Buoyancy tanks and devices (material, positioning) Calculation, test (documentation)</i>	EN ISO 12217-1:2002 EN ISO 12217-2:2002 EN ISO 12217-3:2002
A.3.4	Openings in hull deck and structure	Design and manufacturing drawings Deck plan - windows, hatches <i>e.g: Hatches, doors, portlights (see Annex II, clause 5 for prefabricated) degree of watertightness of closing appliances</i>	EN ISO 12216:2002
A.3.5	Flooding	Design and manufacturing drawings Detail drawings - cockpit drainage Schemes of components, system drawings and circuits Drainage (e.g. bilge and toilet, including list of bilge-pumps and capacity) <i>e.g.: Sill heights; cockpit drainage; Bilge pumping arrangement (pumps, lines, discharge, back-flow prevention), position of through-hull fittings; Electrically operated bilge pumps</i>	EN ISO 11812:2001 EN ISO 15083:2003 EN ISO 9093-1:1997 EN ISO 9093-2:2002 EN 28849:1993/A1:2000 (ISO 8849:1990)
A.3.6	Manufacturer's max. recommended load	Break down to be mentioned in owner's manual	EN ISO 14946:2001/AC:2005
A.3.7	Liferaft stowage	Design and manufacturing drawings - liferaft stowage area - strong points <i>e.g: Feasible position in relation to size (number of persons)</i>	
A.3.8	Escape hatch	Size, position when boat upright and inverted	

ESR	ESR name	Documentation	Standard
		(multihulls only)	
A.3.9	Anchoring, mooring, towing	Designated strong points; transfer of forces into hull structure	EN ISO 15084:2003
A.4	Handling characteristics	Prevention of overpowering (motorboats only) Rudder size, profile and position suitable for the craft. Assessment only by sea trial. Maximum rated power to be stated in the owner's manual.	EN ISO 11592:2001
A.5.1.1	Inboard engine	Schemes of components, system drawings and circuits Engine installation, including possible exposed parts Exhaust system <i>e.g.: Separation from living quarters; risk and spread of fire; hazard from fumes, heat, noise, vibration; easy access to engine parts needing servicing; insulation material; exhaust system;</i>	
A.5.1.2	Ventilation	<i>Design and manufacturing drawings - engine room ventilation e.g.: Details of ventilation for engine and fuel spaces; Ventilation of petrol engine and tank spaces</i>	EN ISO 11105:1997
A.5.1.3	Exposed parts	Schemes of components, system drawings and circuits Engine installation, including possible exposed parts <i>e.g.: Shielding of exposed parts, unless engine is covered.</i>	
A.5.1.5	Personal Watercraft running without driver	(to be defined)	EN ISO 13590:2003/AC:2004
A.5.2.1	Fuel system – general	Schemes of components, system drawings and circuits Fuel system <i>e.g.: Minimising risk of fire and explosion; Fuel lines, fittings (material, support, routing) Detailed checklist for ISO 10088 advisable.</i>	EN ISO 10088:2001
A.5.2.2	Fuel tanks	Design and manufacturing drawings Tanks	EN ISO 10088:2001

ESR	ESR name	Documentation	Standard
		<i>e.g.: Material, fittings, support, positioning, CE marking, test results.</i>	
A.5.3	Electrical system	<p>Schemes of components, system drawings and circuits</p> <p>Electrical system, AC/DC</p> <p><i>E.g.: Cables (routing, chafe protection, connections, board; power generators and batteries (location, type, protection, ventilation), battery disconnect switch (max amps), wiring (colour code or traceability, conduits, type, temp. class); wiring diagram; fuses, switch shielding); grounding / bounding; GFCI devices; panels design; power source system</i></p>	<p>EN ISO 10133:2000</p> <p>EN ISO 13297:2000</p>
A.5.4	Steering system	<p>Design and manufacturing drawings</p> <p>Detail drawings</p> <ul style="list-style-type: none"> - rudderstock - rudder construction - shaft <p>Schemes of components, system drawings and circuits</p> <p>Steering system, including emergency arrangements (= steering system only)</p> <p><i>e.g.: General layout, accessibility of components; Compliance with Annex II, clause 3; emergency steering</i></p>	
A.5.5	Gas system	<p>Schemes of components, system drawings and circuits</p> <p>LPG system</p> <p><i>e.g.: Pipes, flexible lines (routing, chafe prevention, expansion); CE marked consuming devices. Test results.</i></p>	<p>EN ISO 10239:2000</p>
A.5.6	Fire protection	<p>Schemes of components, system drawings and circuits</p> <p>Fire extinguisher system (permanent- and/or portable, including volume and capacities)</p> <p><i>e.g.: Escape route, alternative escape route, escape hatch sizes, fixed extinguishing system Portable extinguishers: number, location, capacity protection of engine and fuel space Liquid fuelled galley stoves</i></p>	<p>EN ISO 9094-1:2003</p> <p>EN ISO 9094-2:2002</p> <p>EN ISO 14895:2003</p>

ESR	ESR name	Documentation	Standard
A.5.7	Navigation lights	Schemes of components, system drawings and circuits Navigation lights <i>e.g.: Certificates, position on craft.</i>	Colreg / Cevni
A.5.8	Discharge prevention	Schemes of components, system drawings and circuits Drainage (e.g. bilge and toilet, including list of bilge-pumps and capacity) Through hull fittings <i>e.g.: Fuel, oil, oily water: prevention from overboard discharge?</i> <i>Seacock (Y-valve?) able to be sealed shut; holding tank, deck fitting. Height of anti-siphon</i>	EN ISO 8099:2000
B.	Exhaust emissions	Exhaust emission test report (including Declaration of Conformity)	EN ISO 8178-1:1996
C.	Noise emissions	Noise emission test report (including Declaration of Conformity)	EN ISO 14509
	Annex II: Components	Manufacturing details List of fitted installations and components (including Declaration of Conformity)	EN 28846:1993/A1:2000 (ISO 8846:1990) EN ISO 11547:1995/A1:2000 EN 28848:1993/A1:2000 (ISO 8848:1990) EN 29775:1993/A1:2000 (ISO 9775:1990) EN ISO 10592:1995/A1:2000 EN ISO 10088:2001 EN ISO 7840:2004 EN ISO 12216:2002

d) Recommendations for use

Relevant Approved Recommendations for Use (ARFU):

#36

I. POST CONSTRUCTION ASSESSMENT

a) Text of Article 8 (1) of the Directive

1. *Before placing on the market, and/or putting into service, products referred to in Article 1(1) the manufacturer or his authorised representative established within the Community shall apply the procedures referred to in paragraphs 2, 3 and 4 of this Article. In the case of post-construction assessment for recreational craft, if neither the manufacturer nor his authorised representative established within the Community fulfils the responsibilities for the product's conformity to this Directive, these can be assumed by any natural or legal person established within the Community who places the product on the market, and/or puts it into service, under his own responsibility. In such a case, the person who places the product on the market or puts it into service must lodge an application for a post-construction report with a notified body. The person who places the product on the market and/or puts it into service must provide the notified body with any available document and technical file referring to the first placing on the market of the product in the country of origin. The notified body shall examine the individual product and carry out calculations and other assessment to ensure its equivalent conformity with the relevant requirements of the Directive. In this case, the Builder's plate described in Annex I, 2.2 shall include the words "(Post-construction certificate)". The notified body shall draw up a report of conformity concerning the assessment carried out and shall inform the person who places the product on the market and/or puts it into service of his obligations. That person shall draw up a declaration of conformity (see Annex XV) and affix, or cause to be affixed, the CE mark accompanied by the distinguishing number of the relevant notified body on the product.*

b) General Comments

In accordance with Article 8 of the Directive, the Manufacturer shall, before producing and placing his products on the market, apply the conformity assessment procedure foreseen in relation to the boat design category and hull length. However, in certain cases, it is necessary for craft and PWC with their installed engines and components to be certified, in line with Article 8.1 of the RCD, after they have been built. These are those craft and PWC, where the Manufacturer does not want to take responsibility for placing it on an EEA market. These are not necessarily used craft or PWC, but also new ones, where imported e.g. by private persons. All essential safety requirements are applicable for such craft and PWC. This includes design, construction, noise and exhaust. The post construction assessment report issued by the Notified Body has to cover all these requirements.

In the Directive no modules are defined for post construction assessment. RSG recommends Notified Bodies to apply the following .procedures

Procedure to be applied for Post construction:	
Applicant:	Notified Body:
1. Apply for post construction assessment for the individual product with one Notified Body for all essential requirements (Annexes 1a,	1. Examines the available technical documentation and/or historical data provided by the applicant.

1b and 1c).	
2. Provide all available relevant technical documentation and/or historical data to the Notified Body.	2. The Notified Body shall assess which information is still missing and communicate this to the applicant.
3. Agree with the Notified Body who will draw up the missing technical information. This information may be drawn up by the applicant or a consult. This information will then be provided to the Notified body. Alternatively the Notified body may collect the required information as a part of the assessment.	3. Assess the individual craft by means of: <ul style="list-style-type: none"> - an onboard survey, - a visual hull inspection, - sea trails if required, - flotation and/or stability tests if required, - component tests and other tests if required checking compliance with noise and exhaust emission requirements
4. Provide the individual craft to the Notified body. This may be in- and/or outside the water at the discretion of the Notified Body.	4. Assess the equivalent conformity of the individual craft with the relevant requirement(s) using the information provided and information gathered from the inspection of the craft and communicate all non conformities found to the applicant.
5. Provide the owner's manual.	5. Assess the owner's manual and provide information of its deficiencies.
6. Address all non-conformities identified by the Notified Body. Provide the vessel to the Notified body for reassessment of the corrections of the non conformities.	6. Re-asses non conformant items that have been corrected.
7. The applicant affixes the CIN assigned by the Notified Body.	7. The Notified Body assigns the applicant with a CIN including the Notified Body MIC. If there is no national body to provide the applicant with a MIC
8. The applicant affixes the builder's plate including CE marking and the wording "Post Construction Certificate".	8. When equivalent conformity to the Directive has been verified, a report of conformity shall be produced. A Post Construction Certificate shall be issued by the Notified Body. The certificate contains the name and address of the applicant, conclusions of the

	examination, and conditions for its validity and the necessary data for identification of the approved product.
9. Draw up the declaration of conformity.	9. Inform the applicant of his obligation with regards to the declaration of conformity which is to be annexed to the report of conformity and to be included into the owner's manual.

As examples, the following boats are covered by post construction assessment, where the Manufacturer or his authorised representative does not fulfil the responsibility that the boat conforms with the requirement of the Directive:

- boats that were not constructed, placed on the market or put into service in the present EEA Member State territory prior to the full application date of the Directive
- boats intended solely for racing or experimental craft, subsequently placed on the market as recreational craft and therefore required to be CE marked in accordance with the Directive.
- Totally refitted boats (e.g. former commercial boats)

Attention is drawn to the responsibility and the legal aspects, having the owner, the importer, or the person placing the craft on the market or putting it into service in the EEA, as applicable, to assume the role of the Manufacturer and being identified as the responsible person in this context (not being the authorised Manufacturers representative).

For PCA assessment all requirements of the directive, i.e. design, noise and exhaust need to be covered. In case a craft has to be assessed, which obviously has provisions for engine installations or the propulsion engine installation has been removed, the PCA certificate shall include an explicit disclaimer stating, "This certificate is only valid when a propulsion engine installation is fitted in compliance with the Recreational Craft Directive and certified for compliance with noise and exhaust".

Relevant Approved Recommendations for Use (RFU):

#73

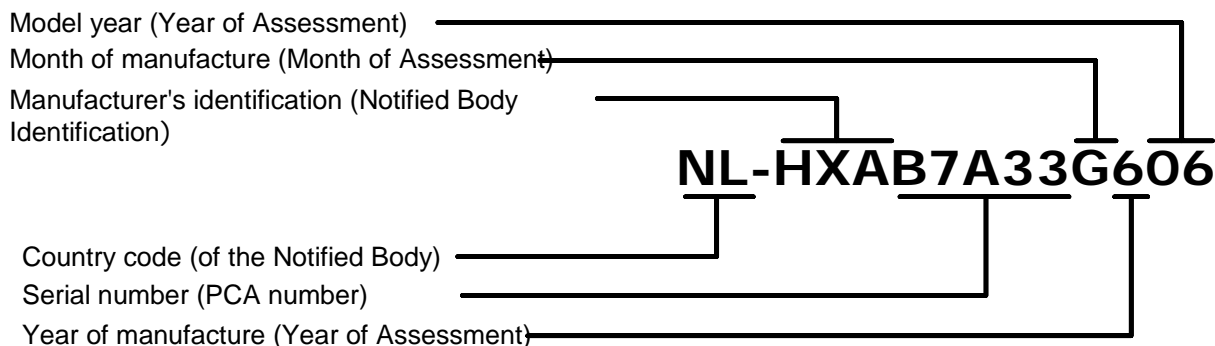
c) Procedure to be applied for PCA (assessment of requirements acc. Annex I):

A.1. Boat Design Categories: see chapter E of the Guidelines

A.2.1. Craft identification: The scope of the requirement is to identify each craft with some indications relevant to the Manufacturer. In case such information are missing or unidentified (e.g.: the date of build or model year when the builder is unknown) it becomes the responsible person's duty to act as though he was the original builder and include such details in the CIN.

The NB should assign the MIC for Recreational craft which are subject to PCA in combination with a digit code to allow unique identification. ESR A.2.1. requires the use of

EN ISO 10087 for coding as illustrated in the following. For PCA the principles of this standard are applied with the following modifications:



A.2.2. Builder's plate: the responsible person takes the role of the Manufacturer and includes his name on the plate.

A.2.3. Protection from falling overboard and means of reboarding: see chapter E of the Guidelines

A.2.4. Visibility from the main steering position: see chapter E of the Guidelines

A.2.5. Owner's manual: the responsible person shall ensure that the manual is provided in accordance with chapter E of the Guidelines

A.3.1. Structure: in order to assess the strength of the structure it is recommended to obtain as much information as possible concerning hull construction and scantlings (e.g.: past acceptability by Certification Bodies or Local Authorities or declaration of conformity in accordance with the Annex III of the Directive) and any possible empirical data (e.g.: details of voyages undertaken or record relevant to adequate experience of safe operation in an area where the sea and weather condition are not less than those applicable in the Design Category). If there is insufficient documentation to assess construction of the boat or insufficient empirical data to demonstrate adequate strength compliance, then tests may also be carried out. A hull inspection should then be carried out in order to assess satisfactorily the conditions of the boat.

A.3.2. and A.3.3 Stability & Freeboard and Buoyancy & Flotation: see chapter E of the Guidelines. *For all design categories, a Notified Body is required to have assessed this Essential Safety Requirement*

For A & B category boats, if there is insufficient documentation to assess stability and buoyancy with the harmonised stability standard, it is required to obtain as much information as possible concerning stability and buoyancy (e.g.: past acceptability by Certification Bodies or Local Authorities) or any possible historical data (e.g.: record of voyages undertaken in safe operation in an area where the sea and weather condition are not less than those applicable in the corresponding Design Category) which may permit to define the design category, the maximum number of persons and the maximum load capacity.

For C & D category boats, if there is insufficient documentation to assess stability and buoyancy, tests have to be conducted to assess stability and buoyancy and to define the design category, the maximum number of persons and the maximum load capacity.

A.3.4. Openings in the hull, deck and superstructure: Tightness degree test and strength assessment relevant to the installation of the appliances according to EN ISO 12216:2002 is required. This test may be omitted provided that a visual inspection is carried out satisfactorily and adequate experience in the use may be demonstrated.

A.3.5. Flooding: see chapter E of the Guidelines.

A.3.6. Manufacturer's Recommended Maximum Load: see chapter E of the Guidelines. The maximum load, crew limit and design category are strictly linked. The relationship between the three items is given in the Stability and Buoyancy Standard

A.3.7. Liferaft stowage: see chapter E of the Guidelines

A.3.8. Escape: see chapter E of the Guidelines

A.3.9. Anchoring, mooring and towing: see chapter E of the Guidelines

A.4. Handling characteristics: see chapter E of the Guidelines

A.5.1. Engine and engine spaces: see chapter E of the Guidelines. In the absence of satisfactory information insulating materials may be tested and the relevant results included in the Technical Documentation

A.5.2. Fuel system: compliance of the fuel system may be assessed by mean of an inspection of the fuel system and parts of it as installed on the lines, including filling, venting and return hoses, connection to the tanks, fuel filters, any shut-off valves or auxiliary equipment. In case of petrol system, non-ignition protected components are required to be replaced in the engine compartment. Fuel tanks are to be inspected as installed to ascertain any corrosion or leaking areas, tests may be required.

A.5.3. Electrical system: inspection of the installed system including batteries, generators, switches, battery chargers is to be carried out as applicable. Information is required to verify the characteristics of the electrical cables and protection systems

A.5.4. Steering system: compliance with the relevant standards is to be assessed as applicable. A functional test is required.

A.5.5 Gas system: a general inspection of the system including gas storage, gas cylinders, piping hoses, pressure devices and ventilation is required, tests may be required.

A.5.6. Fire protection: see chapter E of the Guidelines

A.5.7. Navigation lights: see chapter E of the Guidelines

A.5.8. Discharge prevention: see chapter E of the Guidelines

A.6. Inflatable boats and ribs assessment procedure should be similar to craft assessment, but with additional application of the harmonised standard for ribs as far as practical. See chapter E.A.6 b)

A.7. Personal Watercraft (PWC) assessment procedure should be similar to craft assessment, but with additional application of the harmonised standard for PWC as far as practical. See chapter E.A.7 b)

B. Exhaust Emissions:

The Notified Body is fully involved in post construction certification.

It is up to the Notified Body how to prove equivalent conformity.

The Notified Body is urged to use tests and procedures according to the Directive. However, the Notified Body can be convinced of equivalent conformity by demonstrating that the engine is certified to some requirement setting limits below or equal to Directive 2003-44-EC under equal or similar test methods (compare regulations as listed below). Engines not certified in accordance with one of these regulations shall be submitted to exhaust emission testing in accordance with the harmonised standard or an equivalent method.

For PCA of used boats the Notified Body should take into account the history of the maintenance and use of the engine and should assess the condition of the craft and the engine in order to ensure compliance with the exhaust limit values.

Regulation Comparison for CI Engines

- Central Commission Navigation river Rhine (CCNR) [if >75kW]
- EU Directive 97/68/EC [stage 2 and if >37kW]
- EU Directive 97/68/EC as amended by EU Directive 2002/88/EC
- USA Environmental Protection Agency (EPA) Recreational Marine (40 CFR 94)
- USA Environmental Protection Agency (EPA) Commercial Marine (40 CFR 94)
- EU Directive 88/77/EEC as amended by 2001/27/EC
- UN Regulation ECE-R96 as amended by Series 01

Regulation Comparison for SI Engines

- Lake Constance Shipping Ordinance (BSO - Bodenseeschiffahrtsordnung) [stage 2]
- EU Directive 97/68/EC as amended by 2004/26/EC
- California Air Resources Board (CARB, 13 California Code of regulation, section 2440) SD/I Rule

C. Noise Emissions: see chapter E of the Guidelines

The Notified Body is fully involved in post construction certification.

It is up to the Notified Body how to prove equivalent conformity.

The Notified Body is urged to use tests and procedures according to the Directive. However, if the Notified Body can be convinced of equivalent conformity this can be demonstrated by other means (e.g. certified reference boats).

For PCA of used boats the Notified Body should take into account the history of the maintenance and use of the engine and should assess the condition of the craft and the engine in order to ensure compliance with the noise limit values.

d) Other procedure to be applied for PCA:

Components listed in Annex II:

Components not CE certified in compliance with the RCD are to be inspected according to the relevant standards as applicable. In case such components are found not in compliance they are to be replaced.

Relevant Approved Recommendations for Use (ARFU):

#09, #26

Technical documentation:

The person who places the product on the market and/or puts it into service must provide the Notified Body with any available document and technical file referring to the first placing on the market of the product in the country of origin.

The Notified Body shall examine the individual product. The list given on minimum survey activities (chapter G. VII c) "Procedures to be applied for module G") should be used.

The NB shall carry out calculations and other assessment to ensure its equivalent conformity with the relevant requirements of the Directive. If the provided available document and technical file is not sufficient to carry out these assessments and calculations, additional technical documentation may need to be generated in order to allow the Notified Body to ensure the assessment of equivalent conformity.

Documents to be issued by the Notified Body

- Report of Conformity – This report includes the assessment results per relevant Essential Requirement and includes information to the applicant with regard to his obligations.
- Post-Construction Certificate – This certificate will be issued when the product has been found to have equivalent conformity.

Note: Equivalent conformity is reached when the product in its current state can reasonably be expected to fulfil all relevant essential requirements of the RCD.

J. RECOMMENDATIONS FOR USE

RSG meets frequently to discuss the common interpretation and implementation of the Directive.

Some of these decisions are established as Recommendation for Use (RFU). These RFUs form an integral part of this RSG Guidelines and are taken into consideration by the Notified Bodies in their certification procedures. Recommendations for Use as worked out by the RSG are discussed for final acceptance by the Standing Committee established under article 6(3) of the Directive. Those RFUs, which have successfully passed this scrutiny procedure, are named Approved Recommendation for Use (ARFU). Those RFUs which are still subject of approval by the Standing Committee remain named Recommendation for Use.

Additional RFUs are published prior to subsequent revisions of the RSG Guidelines and are available from the RSG Secretariat or from the RSG website, which is <http://www.rsg.be>.

All ARFU's and RFU's valid at the time of issue of this revision of the RSG Guidelines are listed below.

LIST OF VALID ARFUs/RFUs

RCD 94/25, 2003/44		Relevant ARFU / RFU
	General comments	#14
Chapter 1	Scope and definitions	#34, #35, #44, #54, #56, #62, #64, #65, #69, #75
Chapter 2	Conformity assessment	#15, #36, #58, #59, #67, #68, #73, #74
Chapter 3	CE Marking	#35
Chapter 4	Final Provisions	
Annex IA - 1	Boat design categories	#28
Annex IA - 2.1	Craft Identification	#39, #48
Annex IA - 2.2	Builder's Plate	
Annex IA - 2.3	Protection from falling overboard.	
Annex IA - 2.4	Visibility from the main steering position	
Annex IA - 2.5	Owner's Manual	#36
Annex IA - 3.1	Structure	#45
Annex IA - 3.2	Stability and freeboard	#32, #40
Annex IA - 3.3	Buoyancy and flotation	#32
Annex IA - 3.4	Openings in hull, deck and superstructure	#56
Annex IA - 3.5	Flooding	

Annex IA - 3.6	Manufacturer's max. recommended load	#76
Annex IA - 3.7	Liferaft stowage	
Annex IA - 3.8	Escape	#70
Annex IA - 3.9	Anchoring, mooring and towing	
Annex IA - 4	Handling characteristics	
Annex IA - 5.1	Engine and engine spaces	#50, #51, #55
Annex IA - 5.2	Fuel system	#22, #23, #25, #30, #55, #60
Annex IA - 5.3	Electrical system	#55
Annex IA - 5.4	Steering system	#45, #71, #77
Annex IA - 5.5	Gas system	
Annex IA - 5.6	Fire protection	#61
Annex IA - 5.7	Navigation lights	#27
Annex IA - 5.8	Discharge prevention and installations facilitating the delivery ashore of waste	
Annex IA - 6	Inflatable Boats and Ribs	
Annex IA - 7	Personal Watercraft	
Annex IB - 1	Exhaust emissions - engine identification	#68, #69
Annex IB - 2	Exhaust emissions- requirements	#68, #69, #72
Annex IB - 3	Exhaust emissions- durability	#68, #69
Annex IB - 4	Exhaust emissions- owner's manual	#68, #69
Annex IC - 1	Noise emission - levels	#66
Annex IC - 2	Noise emission - owner's manual	#66
Annex II	Components	#09, #26, #50
Annex III	Declaration by the builder	#31, #49
Annex IV	CE Marking	#49, #73
Annex V	Int. production control – Module A	#09, #15, #36, #58, #67
Annex VI	Int. production control plus tests – Module Aa	#06, #07, #09, #15, #36, #58, #59, #66, #67
Annex VII	EC type examination – Module B	#10, #15, #17, #36, #43, #58, #59, #67, #78
Annex VIII	Conformity to type – Module C	

Annex IX	Production quality assurance – Module D	#15, #36, #59, #73
Annex X	Product verification – Module F	#15, #36, #59
Annex XI	Unit verification – Module G	#15, #36, #59, #67, #73
Annex XII	Full quality assurance – Module H	#15, #36, #59, #67, #73
Annex XIII	Tech. Doc. supplied by the Manufacturer	#36
Annex XIV	Min. criteria to be taken into account by member states for the notification of bodies	
Annex XV	Written declaration of conformity	#20, #49, #69, #72
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RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 06
	Recreational Craft Sectoral Group	Revision No.: 5
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
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Origin (Notified Body): Sjöfartsverket, Sweden

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Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.3.2 & VI		
Key Words:		
Test procedures		

Scenario/Questions:

Test procedures, interpretation of Annex 6 par.3.2.2 and 3.2.3

Recommended Solution:

Annex 6, 2nd sentence shall be understood to mean that tests, or calculations, or controls shall be carried out by the Manufacturer, or on his behalf, to meet the requirements of 3.2, and 3.3, as applicable.

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 07
	Recreational Craft Sectoral Group	Revision No.: 5
<h1>ARFU</h1>	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
	Recreational Craft Directive 94/25/EC as amended	Page: 111/170

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Origin (Notified Body): PFE 136

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Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: VI		
Key Words:		
Modules, assessment		

Scenario/Questions:

What kind of assessment under Module Aa does the NB have to carry out?

Recommended Solution:

In discussion with the Manufacturer, the NB will agree on tests, equivalent calculations, or controls to be undertaken, the number of these, and the number of boats upon which they have to apply.

It shall be the NB's responsibility to ensure that such test, equivalent calculation, or control shall be carried out to demonstrate conformity with par.3.2 & 3.3 of the ESR.

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 09
	Recreational Craft Sectoral Group	Revision No.: 4
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
	Recreational Craft Directive 94/25/EC as amended	Page: 112/170

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Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: II, V & VI		
Key Words:		
Assessment, components, boat Manufacturer		

<u>Scenario/Questions:</u>
What kind of assessment shall be undertaken in cases where components are produced by the boat Manufacturer and installed in boats subject to modules A and Aa.

<u>Recommended Solution:</u>
"See article 8.2.(e) of the amended Directive":
(2) With regard to design and construction of products referred to in Article 1(1)(a), the boat Manufacturer or his authorised representative established in the Community shall apply the following procedures for boat design categories A, B, C and D as referred to in section 1 of Annex I.A:
(e) for components referred to in Annex II: any of the following modules: B+C, or B+D, or B+F, or G or H.

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 10
	Recreational Craft Sectoral Group	Revision No.: 6
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
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Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: VII		
Key Words:		
Assessment, subcontracting		

Scenario/Questions:

What kind of assessment the Notified Body shall have to carry out in relation to Annex VII.4.2 : "perform or have performed".

Recommended Solution:

Whenever a Notified Body subcontracts testing etc., then it is the responsibility of the NB to ensure that the subcontractor has the facilities and meets the criteria required for that function (RCD Annex XIV, RCD Article 9 paragraph 2, Guide to the Implementation of Directives based on New Approach and Global Approach 6.5).

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 14
	Recreational Craft Sectoral Group	Revision No.: 5
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
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Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex:		
Key Words:		
Translations, Interpretation, Basic text		

<u>Scenario/Questions:</u>
Which basic version of the RCD shall be used within the RSG?

<u>Recommended Solution:</u>
The English text of the Recreational Craft Directive as published in the Official Journal L/164/15 from 30.06.1994, L/127/27 from 10.06.1995, and L/41/20 from 15.02.2000 is the basic text used for a common understanding within the Recreational Craft Sectoral Group.

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 15
	Recreational Craft Sectoral Group	Revision No.: 8
<h1>ARFU</h1>	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
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Additional Comments:	

Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:	Ch. II, 8	Other:
Annex:	V, VI, VII, IX, X, XI, XII, XVI	
Key Words:		
Certification modules, documents, post-construction		

<u>Scenario/Questions:</u>
What kind of documents shall be used in the different certification modules?

<u>Recommended Solution:</u>	
For conformity assessment documents issued by Notified Bodies under the different modules, only the following names shall be used :	
Module Aa:	Examination Report,
Module B:	EC Type - Examination Certificate
Module D, H:	Quality system assessment decision
Module F, G:	Certificate of Conformity
Post Construction Assessment:	Post-construction certificate

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 17
	Recreational Craft Sectoral Group	Revision No.: 5
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
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Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: VII		
Key Words:		
module B, verify the manufacturing, conformity, technical documentation, visiting the workshop		

<p><u>Scenario/Questions:</u></p> <p>According to module B (annex VII) par.4.1, the NB shall verify that the type has been manufactured in conformity with the technical documentation. Is this equivalent to a visit at the Manufacturer's workshop to inspect that he (or she) manufactures in conformity with the technical documentation? Or is it enough to let the Manufacturer declare on his honour, with some sort of a contract, that his manufacturing process is in conformity?</p>
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<p><u>Recommended Solution:</u></p> <ol style="list-style-type: none"> 1. To verify that a type with a laminated or moulded (e.g. FRP, wood) construction has been manufactured in conformity with the technical documentation the Notified Body must visit the workshop. 2. To verify that a type with a non-laminated or moulded construction (such as e.g. fabricated steel, aluminium) has been manufactured in conformity with the technical documentation, the Notified Body should inspect the construction as appropriate for the materials used.
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<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 20
	Recreational Craft Sectoral Group	Revision No.: 6
<h1>ARFU</h1>	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
	Recreational Craft Directive 94/25/EC as amended	Page: 117/170

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Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: XV		
Key Words:		
Declaration, Conformity, Manufacturer, Representative		

<u>Scenario/Questions:</u>
Can a Manufacturer in a third country sign the Declaration of Conformity?

<u>Recommended Solution:</u>
The Manufacturer in a third country can draw up the Declaration of Conformity.
A signature is not required but recommended. Preference should be given to the use of the harmonised form of the Declaration of Conformity, as developed by ADCO which provides that the name of the empowered person, his signature and title (or an equivalent marking) is affixed on the declaration.
This solution is supported through the following quotes from the "Guide to the implementation of directives based on the new approach and the global approach (Blue Book 2000 Edition, para 5.4, page 35, bullet point no.5 and footnote no. 103):
„As a minimum the following information should be provided:
<ul style="list-style-type: none"> • the date of issue of the declaration; signature and title or an equivalent marking of authorized person”
“It is not necessary for the signatory to be domiciled in the Community. A Manufacturer established outside the Community is entitled to carry out all the certification procedures at his premises and, therefore, to sign the declaration of conformity, unless otherwise provided for in the Directive(s).”

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 22
	Recreational Craft Sectoral Group	Revision No.: 4
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
	Recreational Craft Directive 94/25/EC as amended	Page: 118/170

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Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.5.2.1	EN-ISO 10088:2001	
Key Words:		
Clamps		

<u>Scenario/Questions:</u>
Does the Oetiker Ear Clamp meet the intent of the RCD?
Ref. EN-ISO 10088:2001 – par.6.4.7 “clamps” must be re-usable, and clamps “depending solely on spring tension shall not be used”.

<u>Recommended Solution:</u>
“These clamps do not meet the intent of the RCD’s essential requirements in relation to minimizing the risk of flooding (ESR 3.5) and fire and explosion (ESR 5.2.1)”

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 23
	Recreational Craft Sectoral Group	Revision No.: 5
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
	Recreational Craft Directive 94/25/EC as amended	Page: 119/170

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Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.5.2.2a	EN-ISO 10088:2001	
Key Words:		
Petrol fuel tanks, engine compartments		

<u>Scenario/Questions:</u>
Can petrol fuel tanks be installed in engine compartments?

<u>Recommended Solution:</u>
Petrol fuel tanks can be installed in engine compartments according to EN-ISO 10088:2001, as this will satisfy the requirements of 5.2.2 a (a).

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 25
	Recreational Craft Sectoral Group	Revision No.: 6
<h1>ARFU</h1>	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
	Recreational Craft Directive 94/25/EC as amended	Page: 120/170

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Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:		Other:
Annex:	I, A.5.2.1	EN-ISO 10088:2001
Key Words:		
Fire protection, Fuel filter, Fire test, Fuel system		

<u>Scenario/Questions:</u>
<p>Must all non-metallic fuel filters meet a fire test according to EN-ISO 10088:2001 or a similar fire test? Should the fire test include metal covered filters with internal plastic parts, which could cause a leak after the test?</p>

<u>Recommended Solution:</u>
<p>"All fuel systems components such as filters shall be in compliance with the ESR 5.2.1. One way to show compliance with this ESR for a fuel filter or a metal covered filter with internal plastic parts is if such filters are complying with the harmonized standard EN ISO 10088:2001"</p>

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 26
	Recreational Craft Sectoral Group	Revision No.: 4
<h1>ARFU</h1>	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-06-30
	Recreational Craft Directive 94/25/EC as amended	Page: 121/170

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Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: II		
Key Words:		
Pre-fabricated hatches and porthlights		

<u>Scenario/Questions:</u>
<p>There are many small ports giving access to valves, junction boxes, pipe connections and sealed compartments. They are located on decks, in cockpits and on bulkheads and described as:</p> <ul style="list-style-type: none"> -inspection covers -inspection ports -deck plates <p>They vary in sizes from 100mm to 300mm clear opening.</p> <p>Are these components intended to be part of Annex II.5?</p>

<u>Recommended Solution:</u>
<p>Inspection covers and deck plates are not covered by Annex II.5. They shall comply with ESR 3.4.</p>

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 27
	Recreational Craft Sectoral Group	Revision No.: 6
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Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.5.7		
Key Words:		
Navigation light, COLREG		

<u>Scenario/Questions:</u>
Is it sufficient for CE certification if the navigation lights meet the 1972 Colreg?
Some countries have adopted different standards according to Annex I, b in Colreg. One example is a one-half meter separation between the all round white light and sidelights or a country specifies for instance the height for the lens and requires its own national approval certification.

<u>Recommended Solution:</u>
The RSG considers recreational craft not fitted with navigation lights or fitted with navigation lights in accordance with Annex I from Colreg 1972 for installation locations, light intensity, chromaticity and cut-off angles to comply with the RCD.
<i>Note</i> National administrations may apply different requirements for local use, as provided for in rule 1 b of 1972 Colreg.
"COLREG 1972: Annex I, point 13: Approval: The construction of light and shapes and the installation of light on board the vessel shall be to the satisfaction of the appropriate authority of the State whose flag the vessel is entitled to fly."

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 28
	Recreational Craft Sectoral Group	Revision No.: 4
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Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.1		
Key Words:		
Design categories		

<u>Scenario/Questions:</u>
Is it possible for a boat to be simultaneously assigned more than one design category with different maximum capacities corresponding to each one? (Number of persons, engine power, maximum weight).

<u>Recommended Solution:</u>
Yes, if all relevant requirements are satisfied.

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 30
	Recreational Craft Sectoral Group	Revision No.: 5
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
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Additional Comments:	

Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:		Other:
Annex:	I, A.5.2.1	ISO 10088
Key Words:		
Fuel system, engine		

<u>Scenario/Questions:</u>
Annex I 5.2.1 refers to fuel supply arrangements and installations in general while ISO 10088 exclude the engine unit itself.
Does Annex I 5.2.1 apply to fuel supply arrangements and installations on the engine?

<u>Recommended Solution:</u>
"Yes, Annex I ESR.5.2.1 applies to fuel supply arrangements and installations on the engine. The standard quoted, EN ISO 10088, refers to the supply arrangements and not to the engine units. Engine-mounted fuel supply components are covered by EN ISO 16147:2002 for inboard diesel engines and by EN ISO 15584:2001 for inboard petrol engines."

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 31
	Recreational Craft Sectoral Group	Revision No.: 3
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-06-30
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Approval by Member States Expert Group: Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: III		
Key Words:		
Declaration by the builder, partly completed craft		

<u>Scenario/Questions:</u>
With craft in excess of 12 m of hull length, should a Notified Body require retrospective inspection of a hull structure where a declaration by the builder exists in accordance with Annex III?

<u>Recommended Solution:</u>
Such declaration must include statements from the Notified Body where their involvement has been required by the modular system.

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 32
	Recreational Craft Sectoral Group	Revision No.: 4
	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
ARFU	Recreational Craft Directive 94/25/EC as amended	Page: 126/170

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Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.3.2 & 3.3		
Key Words:		
Stability, buoyancy, flotation		

<u>Scenario/Questions:</u>
When tests according to point 3.2 (Stability) and 3.3 (Buoyancy & Flotation) of the essential safety requirements are carried out in module Aa, it may be argued that the design and construction of the following details are inseparable parts of the issue and therefore should also be assessed by or on the responsibility of one of the Notified Bodies:
-Quick draining cockpits
-Windows, portlights and hatches (positioning, tightness and scantlings?)

<u>Recommended Solution:</u>
The cockpit and windows, portlights and hatches should be included as possible tests, equivalent calculations or controls, in the assessment carried out by or on the responsibility of the Notified Body.

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 34
	Recreational Craft Sectoral Group	Revision No.: 5
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
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Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article: Ch. I, Art. 1 (1a)		
Annex:		
Key Words: inflatables (Lh >2 (m), non reinforced PVC		

Scenario/Questions:

Are such small inflatables with Lh>2,5 m of non reinforced PVC to be considered as boats in the sense of the RCD ?

Recommended Solution:

In the sense of the RCD 94/25 EC inflatables of Lh>2,5m of non reinforced PVC are to be considered as boats.

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 35
	Recreational Craft Sectoral Group	Revision No.: 5
<h2>ARFU</h2>	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
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Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:	Ch. I, Art. 1 (1a) & Ch. III, Art. 10	Other:
Annex:		
Key Words:		
CE marking of boats, CE marking of products not covered by RCD but by other Directives.		

<u>Scenario/Questions:</u>
Situation: A boat can be brought into the market equipped with computers, dishwashers, stereo devices , TV, microwave oven, electric heater, air condition etc
Question: Are those devices be CE marked before the boat is CE marked ?

<u>Recommended Solution:</u>
<ol style="list-style-type: none"> 1) The Manufacturer or the person who puts the boat on the market is responsible that the boat and the components of annex 2 are in compliance of the RCD. 2) The Manufacturer is only responsible for the compliance of components with other Directives if these components have not been placed on the market or put into service in the EU. 3) The responsibility of assessment of the NB's is restricted to the RCD.

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 36
	Recreational Craft Sectoral Group	Revision No.: 5
<h1>ARFU</h1>	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
	Recreational Craft Directive 94/25/EC as amended	Page: 129/170

Document ID : arfu # 36r5 070511.doc

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Approval by Member States Expert Group: Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article: Ch. II, 8		
Annex: I, A.2.5, V, VI, VII, , IX, X, XI, XII, XIII & XVI		
Key Words:		
Technical file, Owner's manual		

<u>Scenario/Questions:</u>
<ol style="list-style-type: none"> 1) Can a Notified Body produce, either fully or partly, a Technical File or an Owner's Manual for a Boat builder? 2) Can a company whose equity is partly owned by a Notified Body and or his Staff produce, either fully or partly, a Technical File or an Owner's Manual for a Boat builder?

<u>Recommended Solution:</u>
The answer is "No" for both questions

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 39
	Recreational Craft Sectoral Group	Revision No.: 4
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
	Recreational Craft Directive 94/25/EC as amended	Page: 130/170

Document ID : arfu # 39r4 051123.doc

Origin (Notified Body): PFE 137
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Approval by Member States Expert Group: Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.2.1	ISO 10087	
Key Words:		
HIN (ISO) and other HINs		

<u>Scenario/Questions:</u>
Situation:
A boat is built outside the EU. As required by the national waterways authorities it has got a (non-ISO) HIN.
The Manufacturer wants to export that boat model to the EU. It fulfils all requirements of the RCD and has to get its HIN according to ISO 10087.
Question:
May this boat show both numbers?

<u>Recommended Solution:</u>
Yes.

RSG	APPROVED RECOMMENDATION FOR USE	RFU No.: 40
	Recreational Craft Sectoral Group	Revision No.: 4
ARFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
	Recreational Craft Directive 94/25/EC as amended	Page: 131/170

Document ID : arfu # 40r4 051123.doc

Origin (Notified Body): PFE 134
Contact Person:
e-mail:

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Approval by Member States Expert Group: Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.3.2		
Key Words:		
Acceptable standards other than EN		

<u>Scenario/Questions:</u>
Situation :
Considering the RCD Art. 5, Blue Book Part 1.2, RSG Guidelines and the CC-Paper, the Manufacturer has the obligation to prove that his product is in conformity with the essential requirements of RCD by the use of the harmonised standards or other means of his own choice. It is the task of the Notified Body to make its own decision if the level of safety required by the ESR of the Directive is fulfilled or not.
Question:
Are standards other than EN to be used as a method to comply with the RCD?

<u>Recommended Solution:</u>
<p>"Yes, standards other than harmonised standards may be used to demonstrate compliance with the essential requirements of the Directive, unless the Directive specifies explicitly that a harmonised standard has to be used to demonstrate such compliance. (e.g. EN ISO 14509 for the noise emission measurement and EN ISO 8178-1:1996 for the measurement of exhaust emissions).</p> <p>However industry and Notified Bodies are urged to use harmonised standards whenever possible, since otherwise they will suffer the consequence of losing the presumption of conformity provided for in article 5. Moreover, in the case of craft of design category C with a hull length from 2,5 to 12 metres, non-compliance with the harmonised stability standards will exclude the possibility of conformity assessment in accordance with Module A (internal production control)."</p>

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 43
	Recreational Craft Sectoral Group	Revision No.: 4
<h1>ARFU</h1>	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2005-11-23
	Recreational Craft Directive 94/25/EC as amended	Page: 132/170

Document ID : arfu # 43r4 051123.doc

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Approval by Member States Expert Group:	Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:	

Question related to		
Directive No.	94/25/EC as amended	Standard:
Article:		Other:
Annex:	VII	
Key Words:		
EC type examination		

<u>Scenario/Questions:</u>
Situation: A producer requests an EC type examination and presents a representative prototype to the Notified Body. One year later there is still no new product.
Question: Can the producer keep this type examination or should this one be changed to Unit Verification.

<u>Recommended Solution:</u>
"Yes, the Manufacturer can maintain this type examination. A Notified Body can not withdraw an EC-type examination certificate on this basis. Unit Verification certificates (module G) should only be issued at Manufacturer's request."

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 44 Revision No.: 5
	ARFU	Date: 2007-05-11 Page: 133/170

Document ID : rfu # 44r5 070511.doc

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Approval by RSG Committee (Meeting No./Date):	30/15-16 June 2005, Decision 44
Approval by Member States Expert Group:	Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:	

Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:	Ch. I, Art. 1	Other:
Annex:		
Key Words:		
Kit boats		

<u>Scenario/Questions:</u>
<p>Are Kit boats covered by the RCD? There are two interpretations possible for kit boats:</p> <ul style="list-style-type: none"> - as amateur built boats they are out of the field of the Directive - as indicated in the "Comments to the Directive combined" when all parts necessary for completion are supplied and subject to confirmation that the building is properly made, a kit boat can be CE marked.

<u>Recommended Solution:</u>
<p>The interpretation of kit boat should be as given in the CC document, i.e. all parts necessary for completion are supplied by a professional Manufacturer. As a person building a boat for own use shall not have it built by others, a kit boat cannot be considered as amateur built. Hence, kit boats of length 2,5-24m are covered by the RCD. Reference is made to the CC document Chapter 1, Article1.</p> <p>"However, in the clarification provided in the CC-Guide on the exemption of craft built for own use, it is stated that" a kit boat bought by its end user from the kit boat Manufacturer, not completed in accordance with the kit boat Manufacturer's instructions [i.e. modified³] but to the 'desires' of the end user is considered to be a 'boat built for own use'."</p>

³ It is considered that these modifications relate to compliance with the directive's essential requirements and not features outside the scope of Annex I

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 45 Revision No.: 5
	ARFU	Date: 2007-05-11 Page: 134/170

Document ID : rfu # 45r5 070511.doc

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Approval by Member States Expert Group:	Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.3.1 & 5.4	ISO/DIS 12215-6.1	
Key Words:		
Assessment of rudder, chain plates and ballast keel attachment.		

<u>Scenario/Questions:</u>
Rudder, chain plates and ballast keel attachment are major structural details of a sailing boat design. ISO/DIS 12215-6.1 (date 2001-03-02) states that "when determining the detailed scantlings of the craft the following considerations shall be taken into account: "followed by a list of items such as rudder stocks, keel bolts, chain plates etc. without providing any criteria of how to consider them. The question is how to achieve a common assessment for all NB's without having as standard providing any criteria of how to consider them.

<u>Recommended Solution:</u>
A Notified Body has the necessary technical competence for conformity assessment. Lack of standards does not exclude important essential requirements for assessment.

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 48 Revision No.: 4
	ARFU	Date: 2005-11-23 Page: 135/170

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Approval by Member States Expert Group: Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.2.1		
Key Words:		
HIN, catamaran hull is today destroyed by collision.		

<u>Scenario/Questions:</u>
<p>A catamaran has been marked properly with a HIN on his starboard hull. A hidden HIN was placed inside the hull as well. During some collision this hull has totally be damaged so that a repair is not recommended. As this craft is of demountable type a simple replacement of the damaged hull by a new one is possible.</p> <p>How to attach a HIN to a replacement hull?</p>

<u>Recommended Solution:</u>
<p>The RSG Group general statement is: Repairs are not covered by the RCD.</p> <p>See Blue Guide on the implementation of New Approach Directives, § 2.1, 4th bullet point: "Products, which have been repaired without changing the original performance , purpose or type, are not subject to conformity assessment according to the New Approach Directives". Any assessment of the repairs carried out should therefore be done in the voluntary/private domain.</p>

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 49
	Recreational Craft Sectoral Group	Revision No.: 4
CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT		Date: 2007-05-11
ARFU	Recreational Craft Directive 94/25/EC as amended	Page: 136/170

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Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: III, IV, XV		
Key Words:		
Duplicate information		

<p><u>Scenario/Questions:</u></p> <p>It appears that Annexes III and XV ask for the component Manufacturers to provide duplicate information. Both annexes refer to the components listed in Annex II; first Annex III via Article 4 (3), which refers to Annex II and second Annex XV, which refers to Annex II directly. All information required by Annex III is also required by Annex XV. How to avoid that?</p>
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<p><u>Recommended Solution:</u></p> <p>"The information may be provided in one declaration".</p>

<h1>RSG</h1>	RECOMMENDATION FOR USE	RFU No.: 50
	Recreational Craft Sectoral Group	Revision No.: 7
RFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
	Recreational Craft Directive 94/25/EC as amended	Page: 137/170

Document ID : rfu # 50r7 070511.doc

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Approval by RSG Committee (Meeting No./Date):
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.5.1.1 & II	EN/ISO 15584: 2001	
Key Words:		
Ignition protection		

<u>Scenario/Questions:</u>
Should petrol inboard and sterndrive engines be ignition protected as specified in EN/ISO 15584: 2001 and certified under Annex II??

<u>Recommended Solution:</u>
No, engines are not Annex II components.
Electrical devices/components for installation on petrol inboard and stern drive engines shall be certified under Annex II.
Note:
-See also chapter E.A.5.1.1 of the RSG Guidelines.
-DOCs according to Annex XV for these components shall be supplied to the boat builder via the engine Manufacturer.

<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 51 Revision No.: 5 Date: 2005-11-23
	RFU Recreational Craft Directive 94/25/EC as amended	Page: 138/170

Document ID : rfu # 51r5 051123.doc

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Approval by RSG Committee (Meeting No./Date):
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.5.1	ISO 4589	
Key Words:		
Insulation material engine room		

Scenario/Questions:

During RSG meeting 20-21 November 1997 it was decided that part 2 of ISO 4589 would be used for determination of allowable insulation materials. The comments to the Directive as well as the RSG guidelines refer to ISO 4589 or ASTM D2863. ASTM D2863 is technically equivalent to ISO 4589 part 2. This test method and ISO 4589-2 are technically equivalent when using the Type A gas measurement and control device accuracy as described in 6.4.."

Therefore we can conclude that the comments and the RSG guidelines mean ISO 4589 part 2 for fulfilling requirement of E.S.R. 5.1.1 Inboard engine. However ISO 9094-1 (relevant standard for ESR 6.1) refers to ISO 4589 part 3. As it is not possible to compare both tests this would mean that a producer needs to have his material tested twice in order to fulfil both requirements.

Recommended Solution:

The 2nd edition of the CC guide and the RSG Guidelines do no longer refer to ASTM D2863, but only to EN ISO 9094-1:2003, which is the only harmonised standard that can be used to benefit from the presumption of conformity with regard to requirement of ESR 5.1.1 that insulating materials inside engine spaces shall be non-combustible. In this harmonised standard reference is made to ISO4589, Part 3, for the measurement of the oxygen index. If this harmonised standard is not followed, or the measurement of the oxygen index is done in accordance with another standard, the Manufacturer has the obligation to prove that the insulating material being used complies with this essential requirement.

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 54 Revision No.: 4
	ARFU	Date: 2005-11-23 Page: 139/170

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Additional Comments:	

Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:	Ch. I, Art. 1	Other:
Annex:		
Key Words:		
floating devices with special recreational purposes		

<u>Scenario/Questions:</u>
<p>Scenario: There are floating devices with i.e. water-chutes (slides) out in the field. Others are used to take a sunbath only or to serve as a floating island. These devices are either rigid or inflatable or rigid inflatable. Their size is above 2,50 m of length or diameter. They are free floating and/or moored and not used to move specifically from point A to point B by engine or human power.</p> <p>Question: Are these devices considered as boats in the sense of RCD?</p>

<u>Recommended Solution:</u>
<p>RSG agrees that aquatic toys are not considered as boats and are out of the scope of the RCD.</p>

<h1>RSG</h1>	RECOMMENDATION FOR USE	RFU No.: 55
	Recreational Craft Sectoral Group	Revision No.: 7
RFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
	Recreational Craft Directive 94/25/EC as amended	Page: 140/170

Document ID : rfu # 55r7 070511.doc

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Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:	EN ISO 11105:1997	
Annex: I, A, 5.1.2, 5.2 & 5.3	ISO 10088:2001	
Key Words:		
Ignition Protection / compartments open to atmosphere		

<u>Scenario/Questions:</u>
<p>Scenario: In EN ISO 11105:1997, "Ventilation of petrol engine and/or petrol tank compartment", § 4.7, the ignition protection of electrical devices is reduced to compartments which are not open to atmosphere (Definition given in §3.1 of that standard).</p> <p>Furthermore in ISO 10088:2001 in §4.3.4 it says that "Petrol engine compartments and petrol tank compartments shall have ventilation and ignition protection in accordance with ISO 11105 and ISO 8846". However in ISO 10088:2001 in §4.1.5 it says that "Electrical devices located in compartments with petrol tanks or petrol fuel system connections or joints shall be ignition protected in accordance with ISO 8846".</p> <p>Question: Should electrical devices be ignition protected in petrol engine/tank compartments that are just opened to atmosphere in their upper part and corners are existing inside these compartments where petrol gas might accumulate?</p>

<u>Recommended Solution:</u>
<p>Yes, electrical devices that are installed in compartments defined as open to atmosphere have to be ignition protected, if the regarding compartments have their opening solely in the upper part.</p>

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 56 Revision No.: 4
	ARFU	Date: 2007-05-11 Page: 141/170

Document ID : arfu # 56r4 070511.doc

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Approval by Member States Expert Group:	Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:	

Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:	Ch. I, Art. 2 (1)	Other:
Annex:	I, A.3.4	
Key Words:		
Sliding roof hatches and cabin doors		

<u>Scenario/Questions:</u>
<p>Scenario: Sliding roof hatches and cabin doors that can not be secured in open position may in heavy seas and at manoeuvring at high-speed start sliding and cause injuries to people on board.</p> <p>This item is not covered by any of the mandated ISO standards, but article 2, clause 1 of the Directive requires that products referred to in article 1 shall not endanger the safety and health of persons when correctly constructed and maintained.</p>

<u>Recommended Solution:</u>
<p>"Lock for open position of sliding roof hatches and cabin doors to be recommended, provided a warning for petrol boats on the risk and potential for exhaust gas intrusion. This recommendation may be included in ISO 12216."</p>

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 58 Revision No.: 4
	ARFU	Date: 2005-11-23 Page: 142/170

Document ID : arfu # 58r4 051123.doc

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Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article: Ch. II, 8		
Annex: V, VI & VII		
Key Words: Craft modification during production		

<p><u>Scenario/Questions:</u></p> <p>There are two forms of craft modifications during production:</p> <ol style="list-style-type: none"> 1. Modification of a product type (Module B): The Manufacturer changes one model of the EC type approved product. In this case the Manufacturer has to inform the Notified Body, who holds the technical documentation, of the change he made. When the change affects the conformity of the ESRs, an addition to the EC type examination certificate must be issued. This scenario is stated in Annex VII para 6. 2. Modification of a product (Module A or Aa): The Manufacturer changes the product, rather than the product type. When he modifies the product to such extent that it would affect the ESRs, the craft could be considered as a new product and the Manufacturer should self-certify the product again. <p>Is the understanding of both cases above correct? Do modifications that affect the ESR in a positive way need to be re-assessment?</p>
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<p><u>Recommended Solution:</u></p> <p>If compliance with the ESRs is affected by modifications the craft should be re-assessed.</p>

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 59 Revision No.: 5
	ARFU	Date: 2007-05-11 Page: 143/170

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Approval by Member States Expert Group:	Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:	

Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:	Ch. II, 8	Other:
Annex:	VI, VII, IX, X, XI, XII, XVI, XVII	
Key Words:		
Non-conformity, reassessment		

<u>Scenario/Questions:</u>
When non-conformity has been found on board during an inspection, what are acceptable ways for the producer to proof compliance of his product after the changes? When is reassessment needed?

<u>Recommended Solution:</u>
Notified Bodies may accept a picture, a written declaration of the Manufacturer or a drawing of change. Decision of acceptance on the proof of compliance is to be made by the Notified Body according to the nature of the non-conformity and taking into account the relevant provisions of the applied conformity assessment module.

<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 60 Revision No.: 7
	RFU	Date: 2005-11-23 Page: 144/170

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Origin (Notified Body):	PFE # 174
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Approval by Member States Expert Group:	Ref doc:
Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:	EN ISO 7840:2004	
Annex: I, A.5.2.1	EN ISO 16147:2001	
Key Words:		
Fuel Return lines		

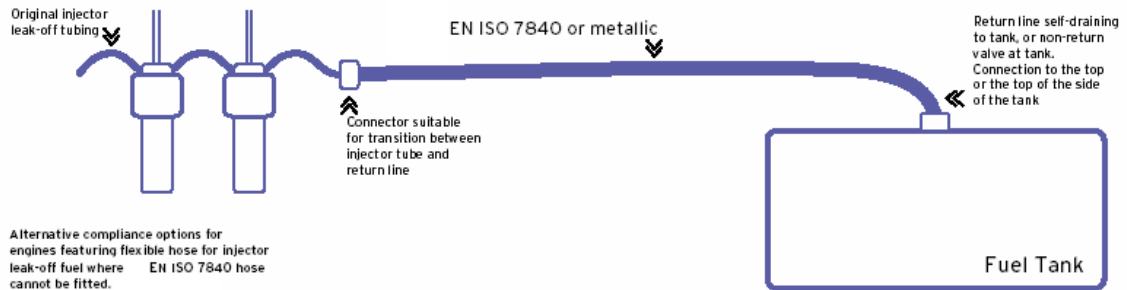
<u>Scenario/Questions:</u>
<p>Some automotive based diesel engines, commonly used in small craft, feature non-fire resistant tubing to carry leak-off fuel from the injectors. This fuel return normally connects with the fuel pump return line before going to the tank.</p> <p>In the event of a fire it is believed that a failure of these tubes could lead to a leak of fuel that may increase or 'feed' the fire.</p> <p>The fitting of hose that meets the fire resistance test of ISO 7840 in place of the original tubing is impractical due to the design of the injector and the non-availability of suitable small bore hose.</p> <p>By arranging the tube installation so that the amount of fuel in the injector return system is reduced to the minimum the possibility of 'feeding' the fire is removed.</p> <p>Or by shielding the injector return system from fire, the risk of failure is removed.</p>

<u>Recommended Solution:</u>
<p>Applying § 5.3.1 of EN ISO 16147:2001 should be the preferred option, where the fitting of fire-resistant hoses complying with EN ISO 7840:2004 in place of the original tubing would be impractical.</p> <p>The following three options meet the Essential Safety Requirement 5.2.1."The filling, storage, venting and fuel-supply arrangements and installations shall be designed and installed so as to minimise the risk of fire and explosion".</p> <p>Option 1: To minimise the flow of fuel from the injector leak off tubes in the event of a failure, a separate injector leak-off return line from the engine complying with EN ISO 7840:2004, self draining to the fuel tank, or other collection tank.</p> <p>OR</p> <p>Option 2: To minimise the risk of reverse flow from either the fuel tank return line or the fuel pump return line in the event of the injector fuel return line failing due to fire damage, the installation of a non-return valve between the injector leak off line and the fuel pump return line. The separate return line from the engine shall be in compliance with EN ISO 7840:2004.</p> <p>OR</p>

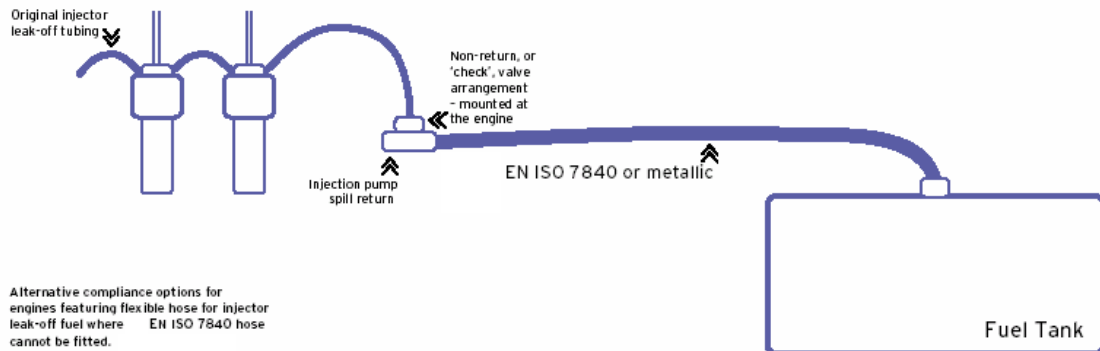
Option 3: To minimise the risk of failure through fire, the injector return system shall be shielded and fire tested in accordance with ISO 7840 Annex A, as installed on the engine.

The three options shall apply to engines with a total fuel flow rate (all injectors, excluding injector pump) in the injector return system of maximum 8.3 ml/min.

Option 1 Direct return to tank



Option 2 Connection to fuel system through non return valve - Example



<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 61 Revision No.: 5
	RFU	Date: 2005-11-23 Page: 146/170

Document ID : rfu # 61r5 051123.doc

Origin (Notified Body):	PFE # 175
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Approval by RSG Committee (Meeting No./Date):
Approval by Member States Expert Group: Ref doc:
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.5.6	ISO 9094 -1/2	
Key Words:		
Fixed fire-extinguishing systems - EN 9094-1/2		

<u>Scenario/Questions:</u>
Standard ISO 9094 does not indicate if the visual indication of discharge of an extinguishing system should be placed in or out the protected place, As the standard is written now the visual indication could be inside the engine room. Opening the protected place to control if the extinguishing system has been discharged could lead to dangerous situations.
STANDARD ISO 9094-1/2 Small craft — Fire protection —Part 1: Craft with a hull length of up to and including 15 m. 7 Fixed fire-extinguishing systems. 7.5 Discharge and control. 7.5.1 A visual indication of discharge shall be provided.

<u>Recommended Solution:</u>
"A visual indication shall be placed so it can be seen from outside the protected space (e.g. an LED). Note: The protected space shall be the engine space or any similar space protected by the fire-extinguishing system."

<h1>RSG</h1>	RECOMMENDATION FOR USE	RFU No.: 62
	Recreational Craft Sectoral Group	Revision No.: 6
RFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
	Recreational Craft Directive 94/25/EC as amended	Page: 147/170

Document ID : rfu # 62r6 070511.doc

Origin (Notified Body):	PFE # 164
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Approval by RSG Committee (Meeting No./Date):
Approval by Member States Expert Group: Ref doc:
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article: Ch. I, Art. 1 & 2(a)		
Annex:		
Key Words: CE Marking of Canoes		

<u>Scenario/Questions:</u>
None of the following described "canoes" have a CE-marking. Should they have???
Example 1: Open boat with a canoe shaped hull (bow and stern) and equipped with two one oars considered for rowing.
Example 2: Open boat with a canoe shaped bow and fitted with an outboard engine
Example 3: Open boat with a canoe shaped bow and fitted with an outboard engine and with two one oars considered for rowing.
The exclusions in Article 1 3 (b) (canoes and kayaks, gondolas and pedalos) concern types of watercraft, which are by nature incompatible with some of the essential requirements but whose inclusion in the Directive might be debatable. Canoes and kayaks, gondolas and pedalos are considered to be craft designed to be propelled by human power excluding rowing. Rowing is considered to be the use of more than one oar.

<u>Recommended Solution:</u>
Yes.
Definition of canoe or kayak in relation to Art. 1(3) 3.(b): Canoes and kayaks are crafts which are narrow (Bh <1.1m), pointed in both ends, intended for paddling and which do not have fixed points for engines, more than one oar or sails.
Reference to the CC Guide Article 1 (3) b "The exclusions in (b) concern types of watercraft, which are by nature incompatible with some of the essential requirements but whose inclusion in the Directive might be debatable. Canoes and kayaks, gondolas and pedalos are considered to be craft designed to be propelled by human power excluding rowing. Rowing is considered to be the use of more than one oar. If canoes are so designed and constructed that they can be fitted with an engine and placed on the market as such, they are covered by the Directive."

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 64
	Recreational Craft Sectoral Group	Revision No.: 5
	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
ARFU	Recreational Craft Directive 94/25/EC as amended	Page: 148/170

Document ID : arfu # 64r5 070511.doc

Origin (Notified Body):	PFE # 178
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Approval by RSG Committee (Meeting No./Date):	30/15-16 June 2005, Decision 64
Approval by Member States Expert Group:	Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:	

Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:	Ch. I, Art. 3	Other:
Annex:	I	
Key Words:		
Compliant and non-compliant systems installed on board in parallel		

<u>Scenario/Questions:</u>
<p>A boat is under RCD assessment. The Manufacturer installs parallel to some device (# 1) covered by the RCD requirements a second device of same function but different characteristics (# 2) leaving by some switch the choice of using the one or the other device by the user.</p> <p>With # 1 the boat complies fully with RCD. If # 2 would be installed as the only option, the boat would not comply with RCD.</p> <p>The OM shows the caution note: Please use device # 2 only when having left EU demarcation lines.</p> <p>Is this approach in accordance with RCD?</p>

<u>Recommended Solution:</u>
No. (Compare RCD Article 3)

<h1>RSG</h1>	APPROVED RECOMMENDATION FOR USE	RFU No.: 65
	Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT Recreational Craft Directive 94/25/EC as amended	Revision No.: 5
ARFU		Date: 2007-05-11
		Page:149/170

Document ID : arfu # 65r5 070511.doc

Origin (Notified Body):	PFE # 179
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Approval by RSG Committee (Meeting No./Date):	30/15-16 June 2005, Decision 65
Approval by Member States Expert Group:	Ref doc: "IN Final Recommendations RFU WG 050530"
Additional Comments:	

Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:	Ch. I, Art. 1	Other:
Annex:		
Key Words:		
Powered remote controlled unmanned device		

<u>Scenario/Questions:</u>
A builder in the USA is about to be assessed for a product, a self-propelled "doodlebug" which tows a water-skier. The skier controls the speed and direction of this self powered device through the connecting tow line.
No one rides on it, but it does have all the other features of a boat; engine, fuel system, steering et cetera. These vessels are banned in Canada.
Is it a craft covered by the RCD?

<u>Recommended Solution:</u>
No, it is not a craft covered by the RCD.

<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 66 Revision No.: 4
	RFU	Date: 2007-05-11 Page: 150/170

Document ID : rfu # 66r4 070511.doc

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Approval by RSG Committee (Meeting No./Date):	meeting No. 30/15-16 th June 2005, Decision 8
Approval by RSG Committee (Meeting No./Date):	meeting No. 29/13-14 th January 2005
Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I.C & VI.B		
Key Words: Boat families		

<p><u>Scenario/Questions:</u></p> <p>Annex VI.B states:</p> <p>“For recreational craft fitted with inboard or stern drive engines without integral exhaust and for personal watercraft:</p> <p>On one or several craft representing the production of the craft manufacturer, the sound emission tests defined in Annex I.C shall be carried out by the craft manufacturer, or on his behalf, under the responsibility of a notified body chosen by the manufacturer.”</p> <p>Module Aa recognizes that not all craft will have to be tested if the builder can establish a selection of craft representing the production. Furthermore, it should be noted the European Commission’s Application Guide to Directive 94/25/EC specifies in relation to Module Aa assessment that “in discussions with the Manufacturer, the Notified Body should agree on the type, number and scope of the tests to be carried out”.</p> <p>How can the builder establish this selection of craft representing the production?</p>
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Recommended Solution:

“Boat family” is a grouping of craft which have similar sound emission characteristics and which comply with the sound emission requirements of the Directive.

Boat builders select “Master Boats” against which other boats are assessed. Such Master Boats must have taken and passed the “pass-by” test (EN ISO 14509).

The following provides a guide for establishing such grouping:

Boat builders may establish boat families in discussion with their Notified Body by using the following guidelines:

CRITERIA TO DEVELOP BOAT FAMILIES

1. Selection of Master Boat.

- Selection of Master Boats should be made in coordination with the Notified Body.
- Master Boats must record a sound level in the EN ISO 14509 pass by test equal to or less than the following4:

- a. Single Engined Craft – 72 dB(A)
- b. Multiple Engined Craft - 75 dB(A)

This is because of the current tolerance between pass-by sound measurements and on-board sound measurements. (It is hoped that this tolerance may be revised down slightly following further evaluation from the Soundboat project)

2. Parameters for establishing a Boat Family:

	Key Parameters	Units	Master Boat	Family Boat	Tolerance Level vs Master Boat	Within Tolerance? Yes/no
1	Length of the waterline L_{WL} as defined in ISO 8666	m			± 10 %	
2	Beam at the waterline B_{WL} as defined in ISO 8666	m			± 10 %	
3	Bottom type configuration (hard-chine, multi-chine, flat, round)				Same	
4	Performance test mass, m_p as defined in EN ISO 8666	kg			± 25 %	
5	Test Speed	km/h			±25%	
6	Number of engines				Same	
7	Exhaust outlet location during test above or below waterline				Same	
8	stern shape (plan view)				Same	
9	stern shape (elevation)				Same	
10	stern swim platform yes or no				Same	
11	stern swim platform construction (solid or open)				Same	
12	On-board sound level. Enter Master Boat's Maximum Allowable Sound and Family Boat's recorded on-board sound	dB(A)			Equal to or less than Master Boat's Maximum Allowable Sound	

3. Operating and Test Conditions for on-board sound measurement

- The boat speed shall be 70 km/h or maximum speed whichever is the smaller
- **Equipment Specification:** The sound measurement equipment including the windshield recommended by the Manufacturer shall meet the requirements for a Class 2 instrument according to IEC 61672-1. A sound calibrator, which meets the requirements of IEC 60942 shall be used. The overall acoustic performance of the measurement equipment shall be checked with the sound calibrator according to the instructions of its Manufacturer at the beginning and at the end of each series of measurements, and at least at the beginning and end of each measurement day. The sound calibrator used for calibration of the sound level meter shall undergo laboratory verification every year with traceability to a primary standards laboratory. The microphone shield shall not show any evidence of moisture.

4. Measurement of on-board Sound

- Overall A-weighted (setting on sound meter) sound measurements shall be made at the seven microphone positions given in the figure in paragraph 5 below.
- The microphone is best fitted to the end of a pole which is held manually in turn at each of the positions indicated in paragraph 5 for the time specified
- Each on-board sound level measurement shall be averaged over a 10 seconds period.
- At all times the microphone windshield must remain dry.
- The average of these seven sound level measurements shall be the arithmetic average of the value measured at each of the seven microphone positions.
- **Master Boats.** The sound level recorded on the sound pass-by test shall be subtracted from the allowable maximum in paragraph 1a or 1b above as applicable. This result should be added to the actual recorded on-board sound. This total will be known as the Master Boat's Maximum Allowable Sound.
- **Family Boats.** The family boat's on-board sound measurement must be equal to or less than the Master Boat's Maximum Allowable Sound.
- The family boat's average sound level measurement is the on-board sound level to be inserted at Item 12 in the Key Parameters Table in paragraph 2 above.

Example:

The **Master Boat** with a single engine records the following sound emissions:

- EN ISO 14509 Test: 69dB(A)
- On-board sound: 80dB(A)

Calculation of Maximum Allowable Sound

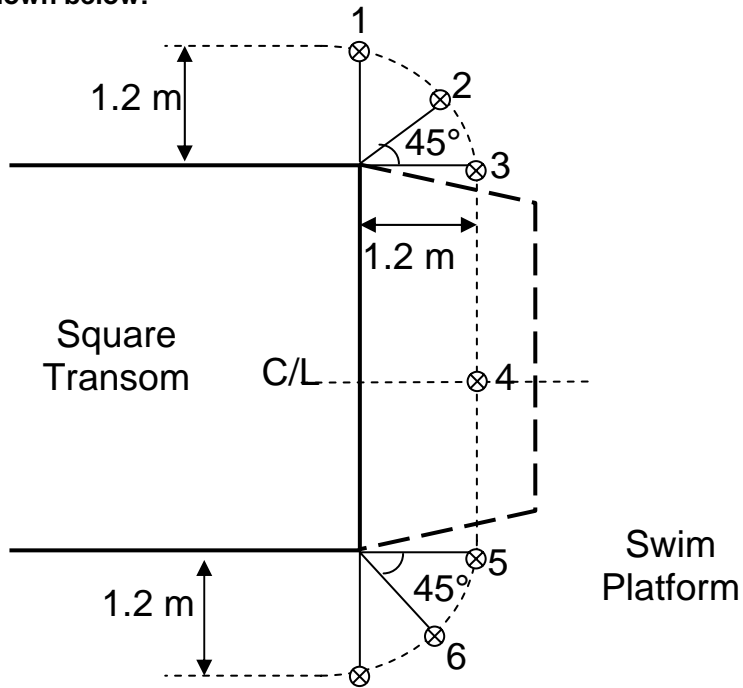
- Allowed sound level (single engine) (a) 72dB(A)
- Recorded EN ISO 14509 sound (b) 69dB(A)
- Difference (a) minus (b) = (c) 3dB(A)
- Maximum Allowable Sound: Recorded on-board sound (80dB(A)) + Difference at (c) 3dB(A) = 83dB(A). This must be entered at Item 12 in the table in paragraph 2.

The **Family Boat** on-board sound measurement:

- Recorded On-Board Sound of family boat was 82dB(A), which is less than the Master Boat's Maximum Allowable Sound of 83dB(A). The 82dB(A) must be entered at Item 12 in the table in paragraph 2.

5. On-board Sound Measurement.

Microphone Positions. **Measurements shall be made at the seven microphone positions shown below:**



NB. Microphones shall be located as close to 1.2m from the hull as practically possible. Similarly they shall be located as close to 1.2m from the water surface as practically possible.

Swim Platform

<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 67 Revision No.: 5
	RFU	Date: 2005-11-23 Page: 154/170

Document ID : rfu # 67r5 051123.doc

Origin (Notified Body):	RINA
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Approval by RSG Committee (Meeting No./Date):	meeting No. 29/13-14 th January 2005
Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article: Ch. II, 8		
Annex: V, VI, VII, XI, XII		
Key Words: existing " EC Type-Examination Certificates " (module B) issued under Directive 94/25/EC		

<p><u>Scenario/Questions:</u></p> <p>From 1st January 2005 and considering that existing EC Type-Examination Certificates issued under Directive 94/25/EC can maintain their validity for the transitional period only, for boats still in production and to be placed in the market, Manufacturers will have to apply with a Notified Body for a new EC Type-Examination Certificate to certify conformity with amending provisions of Directive 2003/44/EC or an additional approval to EC Type-examination Certificate issued under Directive 94/25/EC.</p> <p>What kind of assessment / verifications the Notified Body will have to carry out (excluding "noise emission" to be assessed under Module A, Aa, G or H)?</p>
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<p><u>Recommended Solution:</u></p> <p>An addition to an existing EC Type-Examination Certificate issued under Directive 94/25/EC or a new EC Type-Examination Certificate may be issued by the Notified Body on the basis of an examination of technical documentation and/or declaration supplied by the Manufacturer concerning the compliance with the new and amended provisions regarding design and construction introduced by Directive 2003/44/EC and after having verified that the type has been manufactured in conformity with the technical documentation and/or declaration.</p> <p>Such an examination may be complemented with an inspection of the type as deemed appropriate by the Notified Body, but should be limited to verify the conformity of the type with the new and amended provisions regarding design and construction as introduced by Directive 2003/44/EC.</p>
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<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 68 Revision No.: 1
	RFU	Date: 2007-05-11 Page: 155/170

Document ID : rfu # 68r1 070511.doc

Origin (Notified Body):	IMCI (PFE 185)
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Approval/Revision by RSG Committee (Meeting No./Date):	meeting No. 31/17-18 th November 2005
Additional Comments:	

Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:	Ch. II, 8	Other:
Annex:	I.B	
Key Words: Exhaust gas emissions from engines running on both petrol and Diesel		

<u>Scenario/Questions:</u>
An engine Manufacturer has an engine model that is a spark ignited. It is an engine that can also run on Diesel.
Question: Does this engine need assessment for both ignition types?

<u>Recommended Solution:</u>
Yes, due the fact that a worst case scenario cannot be defined covering all types of emission components.

<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 69 Revision No.: 1
	RFU	Date: 2007-05-11 Page: 156/170

Document ID : rfu # 69r1 070511.doc

Origin (Notified Body):	Lloyd's Register Quality Assurance GmbH (PFE 189)
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Approval by RSG Committee (Meeting No./Date):	meeting No. 29/13-14 th January 2005
Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article: Ch. I, Art. 4.4		
Annex: I.B and XV		
Key Words: Exhaust emission, EC type examination certificate, Compression ignition engines which are type approved according to Directive 97/68/EC (stage II) or Directive 88/77/EEC		

<p><u>Scenario/Questions:</u></p> <p>Article 4.4 refers to engines which are type-approved according to 97/68/EC (stage II) or 88/77/EEC. The engine Manufacturer is required to declare the conformity with 94/25/EC as amended in accordance with Annex XV.3 where appropriate before it is placed on the market and/or put into service.</p> <p>The Declaration of Conformity (DoC) in Annex XV.3 requires the reference to an EC type examination. Is it therefore necessary for subject engine Manufacturers to apply for an EC-type examination certificate in addition to the existing approval?</p>
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<p><u>Recommended Solution:</u></p> <p>No, because</p> <ul style="list-style-type: none"> • Engines, type approved for marine use according to 97/68/EC (stage II) keeping the limits of Directive 94/25/EC as amended, need no additional EC type examination certificate. The Declaration of Conformity (DoC) may refer to the existing type-approval. • Engines type approved according to 97/68/EC (stage II) or 88/77/EEC keeping the limits of Directive 94/25/EC as amended but modified for marine use after being type approved generally do not need to be assessed by a Notified Body for conformity with 94/25/EC as amended, if the engine Manufacturer's installation specifications for the existing approval are kept. The engine Manufacturer may refer to the existing type approval on the DoC. <p>However, it is the choice of the engine Manufacturer to apply for an additional Notified Body assessment and certification in accordance with one of the options given in Article 8.3 to verify his declaration.</p>

<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 70 Revision No.: 1
	RFU	Date: 2007-05-11 Page: 157/170

Document ID : rfu # 70r1 070511.doc

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Approval/Revision by RSG Committee (Meeting No./Date):	meeting No. 32, 03/04 May 2006
Additional Comments:	

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, A.3.8		
Key Words: Viable means of escape for multihull craft		

<u>Scenario/Questions:</u>
<p>What is a viable means of escape?</p> <p>a. Text of section 3.8 of Annex I of the Directive:</p> <p><i>All habitable multihull craft over 12 metres long shall be provided with viable means of escape in the event of inversion.</i></p> <p><i>All habitable craft shall be provided with viable means of escape in the event of fire.</i></p>

<u>Recommended Solution:</u>
<p>Technical view in the event of fire: Viable means of escape in the event of fire is covered by ISO 9094 The specification of hatches is covered ISO 12216.</p> <p>Technical view in the event of inversion: A "viable means of escape" is any kind of suitable method designated and prepared by the Manufacturer providing persons on board to safely escape to the outside of the craft in inverted position. A "viable mean of escape" shall not compromise the stability or buoyancy in all floating conditions and does not necessarily needs to be a hatch.</p> <p>Manufacturers shall describe in the owner's manual how persons on board can safely escape the craft in inverted position from each habitable compartment of the craft.</p>

<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 71 Revision No.: 1
	RFU	Date: 2007-05-11 Page: 158/170

Document ID : rfu # 71 070511.doc

Origin (Notified Body):	ECB (PFE 187)
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Approval/Revision by RSG Committee (Meeting No./Date):	meeting No. 32, 03/04 May 2006
Additional Comments:	

Question related to		
Directive No.:	94/25/EC as amended	Standard:
Article:	5.4.2	Other:
Annex:	I, A.5.4.2	
Key Words: Emergency arrangements for steering		

<u>Scenario/Questions:</u>
Article 5.3.2 Emergency arrangements Sailboat and single-engine inboard powered motor boats with remote-controlled rudder steering systems shall be provided with emergency means of steering the craft at reduced speed.
Question: Is a twin screw sail boat (multihull) equivalent to a twin engine powered boat, with respect to emergency steering?

<u>Draft Recommended Solution:</u>
Emergency steering means any kind of means provided by the Manufacturer to be used in case of failure of the remote controlled primary steering system.
Parallel twin screw arrangement may be considered as an emergency steering means when the screws can be controlled separately.

<h1>RSG</h1>	RECOMMENDATION FOR USE	RFU No.: 72
	Recreational Craft Sectoral Group	Revision No.: 1
RFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
	Recreational Craft Directive 94/25/EC as amended	Page: 159/170

Document ID : rfu # 72r1 070511.doc

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Approval/Revision by RSG Committee (Meeting No./Date): meeting No. 32, 03/04 May 2006
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended	Standard:	Other:
Article:		
Annex: I, B.2, XV.3		
Key Words: Declaration of Conformity, Exhaust emissions, Engines without integral exhaust		

<p><u>Scenario/Questions:</u></p> <p>Secenario: Reference is made to the Declaration of Conformity issued by an engine Manufacturer for an engine without integral exhaust (Annex XV.3): Quote... "the declaration of conformity shall include in addition to the information of point 2, a statement of the manufacturer that the engine will meet the exhaust emission requirements of this Directive, <u>when installed in a recreational craft, in accordance with the manufacturer's supplied instructions and that this engine must not be put into service until the recreational craft into which it is to be installed has been declared in conformity</u>, if so required, with the relevant provision of the Directive;" ...unquote.</p> <p>With the above the engine Manufacturer is leaving the responsibility to ensure continuous validity of compliance with the exhaust emission limits for the engine with the boat Manufacturer who is installing the individual exhaust system. (Usually the installation instructions of the engine Manufacturer will give reference to a maximum exhaust gas backpressure which has to be kept). As well the decision of the Commission that engines without integral exhaust system have to be CE marked is not altering the above situation. http://europa.eu.int/comm/enterprise/maritime/maritime_regulatory/doc/compliance_matrix_rev1.pdf</p> <p>However, the new Declaration of Conformity form for the RCD as amended (see ICOMIA web page: http://www.icomia.com/technical-info/document.asp?TI_ID=7) does not provide a distinction between engines with and engines without integral exhaust system regarding Annex I. B. Therefore, the current form is only suitable for boats which are equipped with an engine with integral exhaust system.</p>
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<p><u>Draft Recommended Solution:</u></p> <p>Notified Bodies which are responsible for issuing the certificate for exhaust emissions of inboard engines and stern drive engines without integral exhaust are recommended to add to their certificate the sentence: "This certificate is only valid, if the engine is installed in accordance with the engine installation instructions supplied by the engine Manufacturer."</p> <p>Note:</p> <ul style="list-style-type: none"> • NB's shall consider chapter E.B.4 of the RSG Guidelines. • Notified Bodies shall verify that the owner's manual issued by the engine Manufacturer contains instructions for installation and maintenance.
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<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 73 Revision No.: 2
	RFU	Date: 2007-05-11 Page: 160/170

Document ID : rfu # 73r2 070511.doc

Origin (Notified Body): ICOMIA (PFE #193) Contact Person: Jan Matthiesen e-mail: jan@icomia.com
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Approval/Revision by RSG Committee (Meeting No./Date): meeting No. 34, 10/11 May 2007 Approval/Revision by RSG Committee (Meeting No./Date): meeting No. 32, 03/04 May 2006 Additional Comments:
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Question related to		
Directive No.: 94/25/EC as amended Article: Ch. II, Art. 8 (1) Annex: IV, IX (1), XI (2), XII (1), XVI (1)	Standard:	Other: Blue Guide §7.3
Key Words: Marking when more than one NB is involved		

<p><u>Scenario/Questions:</u></p> <p>In the Guidance issued by the Commission services (Blue Guide §7.3), it is recognized that several Notified Bodies may be involved in the production phase, which is possible where more than 1 Directive is applicable, and that in these situations several identification numbers follow . It is also specified that the CE-marking consists exclusively of the letters "CE" followed by the identification numbers of any Notified Body involved in the production phase.</p> <p>The above rules out the possibility of having each of identification number individually preceded by the letters "CE".</p> <p>As to the order in which these identification numbers have to follow the letters "CE", no guidance has been issued. However, in this specific case it looks common sense that first the identification number of the NB for design and construction is mentioned, followed by the identification nr of the NB for sound (as sound emission compliance is normally tested after design and construction have been finished).</p> <p>Whether these identification numbers follow each other by putting them one after another after the letters "CE" or one above the other after the letters "CE" is an issue that should be agreed between the industry and the Notified Bodies, as the Directive specifies under the concerned modules that "the Manufacturer shall affix the CE-marking" and that "the Notified Body shall affix, or cause to be affixed, its distinguishing number on the approved product".</p> <p><u>Question:</u> How the identification numbers of the Notified Bodies should accompany the CE marking on the builders plate in those cases where the Notified Body involved in the conformity assessment of design and construction compliance (under module B+D, B+E, B+F, G or H) is not the same as the one involved in the conformity assessment of the noise emission compliance (under module G or H)?</p>

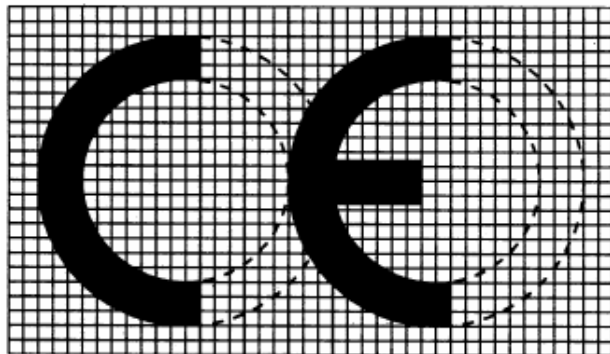
Draft Recommended Solution:

The identification numbers of Notified Bodies can be vertically or horizontally arranged. The top or left position shall be allocated for the identification number of the NB for design and construction. The bottom or right position shall be allocated for the identification number of the NB for sound assessment.

Additional Note: Separate PCA certification for design and construction, noise and exhaust by more than one Notified Body is not possible.

Example:

Example 1:



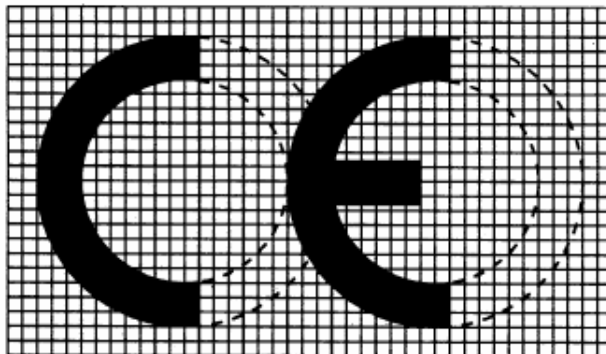
Notified Body for design and construction

1234

5678

Notified Body for sound assessment

Example 2:



1234

5678

Notified Body for sound assessment

Notified Body for design and construction

<h1>RSG</h1>	RECOMMENDATION FOR USE	RFU No.: 74
	Recreational Craft Sectoral Group	Revision No.: 1
RFU	CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	Date: 2007-05-11
	Recreational Craft Directive 94/25/EC as amended	Page: 162/170

Document ID : rfu # 74r1 070511.doc

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Approval/Revision by RSG Committee (Meeting No./Date): meeting No. 32, 03/04 May 2006
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended Article: Ch. II, Art. 8 (1) Annex:	Standard:	Other:
Key Words: Post Construction Assessment, Report of Conformity		

<p><u>Scenario/Questions:</u></p> <p>The recent discussions in the RSG working groups on PCA agreed that the "report of conformity" as described in the RSG guidelines 2006 is more or less comparable to a technical documentation which has to be drawn up by a Manufacturer if he would apply for a "normal" conformity assessment of his product. Since there is most probably no such technical documentation in the case of PCA, the NB may have to make further calculations etc (compare 2006 RSG Guidelines, revision 5, chapter I d)) to have an as complete set of technical data on which it can base its assessment of the craft's equivalent conformity with the relevant requirements of the Directive. In line with that reasoning, the report of conformity would have the equivalent value of a technical documentation that has been assessed and approved by Notified Body, and should therefore be kept by the person that applied for the PCA (as he is taking over the responsibility normally assumed by the Manufacturer) and have it available for inspection by the relevant national authorities.</p>
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<p><u>Draft Recommended Solution:</u></p> <p>The report of conformity should be kept by the person that applied for the PCA (as he is taking over the responsibility normally assumed to be taken over by the Manufacturer) together with the DoC and have it available for inspection by the relevant national authorities. A standard DoC for PCA is actually defined by EBA on behalf of ADCO.</p>
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<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT	RFU No.: 75 Revision No.: 1
	RFU	Date: 2007-05-11 Page: 163/170

Document ID : rfu # 75r1 070511.doc

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Approval/Revision by RSG Committee (Meeting No./Date): meeting No. 32, 03/04 May 2006
Additional Comments:

Question related to		
Directive No.: 94/25/EC as amended Article: Ch. I, Art. 5 Annex:	Standard:	Other:
Key Words: Withdrawn harmonized standards, Validity of certificates		

<p><u>Scenario/Questions:</u></p> <p>If a harmonized standard is superseded and replaced by a revision a date of cessation of presumption of conformity for the superseded standard is communicated in the Official Journal together with the references of the revision of the harmonized standard. (See 'Blue Book' part 4.5 'Revision of harmonized standards')</p> <p>a) Can a superseded version of a harmonized standard still be used by a Manufacturer to demonstrate the conformity with an Essential Requirement after the date of cessation of presumption of conformity?</p> <p>b) Is a Module B certificate for a series production still valid if its presumption of conformity with a certain Essential Requirement was based upon conformity with a version of a harmonized standard which was superseded after the certificate had been issued?</p> <p>c) What necessary action is required by the Notified Body who has issued the above mentioned certificate(s)?</p>

<p><u>Draft Recommended Solution:</u></p> <p>a) No.</p> <p>b) Yes, subject to respecting the conditions of validity mentioned on the certificate.</p> <p>c) RSG should assess each revision of a harmonized standard with a view to consider the impact of that revision with regard to the presumption of conformity with the relevant essential requirement and the eventual need to renew or amend the certificates issued based upon the superseded standard.</p>
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RSG	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT Recreational Craft Directive 94/25/EC as amended	RFU No.: 76 Revision No.: 1 Date: 2007-05-11 Page: 164/170
RFU		

Document ID : rfu # 76r1 070511.doc

Origin (Notified Body): EBA (CE-Proof)
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Question related to		
Directive No.: 94/25 as amended by 2003/44/EC Article: Annex: I, A.3.6	Standard:	Other:
Key Words: Max Recommended Load, Builders Plate		

<p><u>Scenario/Questions:</u></p> <p>Boats "grow" in weight over time for many reasons. GRP boats absorb water, all boats become dirty and larger habitable boats can accumulate a great deal of non-standard equipment, fittings, tools and general stores. It is common for Naval Architects to add a "growth allowance" in their weight calculations. The RCD and its standards do not list a growth allowance and so there is no guidance on where this weight should be considered during the calculation of lightweight, Mmoc and Mldc.</p> <p>Can the Max Recommended Load as shown on the Builders Plate, be voluntarily reduced from the calculated figure in order to include a safety margin?</p>

<p><u>Draft Recommended Solution:</u></p> <p>Yes. Maximum recommended load indicated on the Builders Plate must reflect the maximum recommended loads listed on the Certificate. However, this can be a lower value than the calculated maximum total load at the discretion of the manufacturer.</p>
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<h1>RSG</h1>	RECOMMENDATION FOR USE Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT Recreational Craft Directive 94/25/EC as amended	RFU No.: 77 Revision No.: 1 Date: 2007-05-11 Page: 165/170
<h2>RFU</h2>		

Document ID : rfu # 77r1 070511.doc

Origin (Notified Body): DNV
Contact Person: Hakan Lindqvist
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Question related to		
Directive No.:	Standard:	Other:
Article:	ISO 8848 and ISO 10592	
Annex: I, A.5.4.1		
Key Words: integral steering device, CE marking		

<p><u>Scenario/Questions:</u></p> <p>Some engines on the market (sterndrive, OB....) are manufactured with an integral steering device, forming a part of the engine. Such steering devices interface with remote steering systems that can be separately bought on the market or delivered by the engine manufacturer as a separate part.</p> <p><u>Question:</u> Shall such steering systems be separately CE marked?</p>
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<p><u>Draft Recommended Solution:</u></p> <p>The part of the steering system forming an integral part of the engine shall not be CE marked. These parts shall be addressed in a DoC issued by the engine manufacturer stating conformance with relevant Standards and that these components are designed to interface with remote mechanical and hydraulic boat steering system complying to ISO 8848 and ISO 10592.</p> <p>Interfacing part of the remote steering systems, delivered as a separate part by the engine manufacturer or acquired on the market shall be separately CE marked.</p>
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<h1>RSG</h1>	Recreational Craft Recreational Craft Sectoral Group CO-ORDINATION BETWEEN NOTIFIED BODIES FOR COHERENT CONFORMITY ASSESSMENT Recreational Craft Directive 94/25/EC as amended	RFU No.: 78 Revision No.: 00 Date: 2007-05-11
	RFU	Page: 166/170

Document ID : rfu #78 070511.doc

Origin (Notified Body): ECB
Contact Person: Peter van der Weide
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Question related to		
Directive No.: 94/25/EC as amended Article: Annex: VII	Standard:	Other:
Key Words: Module B type approvals, procedures		

Scenario/Questions:

A boat builder holds a EC-type-examination Module B certificate, Annex 1A, for his product. During the ongoing production process, this boat is changed (a little) for commercial, marketing or other reasons. This change may affect the main dimensions of the vessel as measured in accordance with ISO 8666.and/or it may affect conformity to (some of) the essential requirements. Boat builders often apply the module C, declaration of conformity, without notifying the NoBo of the changes as required by Annex VII – article 6 (see extract below). This may lead to non-relevance of the Examination reports or certificates and to incorrect declarations of conformity as the product does not correspond to the certified or tested type anymore.

Extract of directive

ANNEX VII, EC TYPE-EXAMINATION - module B.

6. The applicant shall inform the notified body that holds the technical documentation concerning the EC type-examination certificate of all modifications to the approved product which must receive additional approval where such changes may affect the conformity with the essential requirements or the prescribed conditions for use of the product. This additional approval is given in the form of an addition to the original EG type-examination certificate.

Footnote (*): A type may cover several versions of the product provided that the differences between the versions do not affect the level of safety and the other requirements concerning the performance of the product.

Question:

What procedures need to be followed by the EC type certificate holders in order to fulfill the requirements as outlined in RCD Annex VII.6?

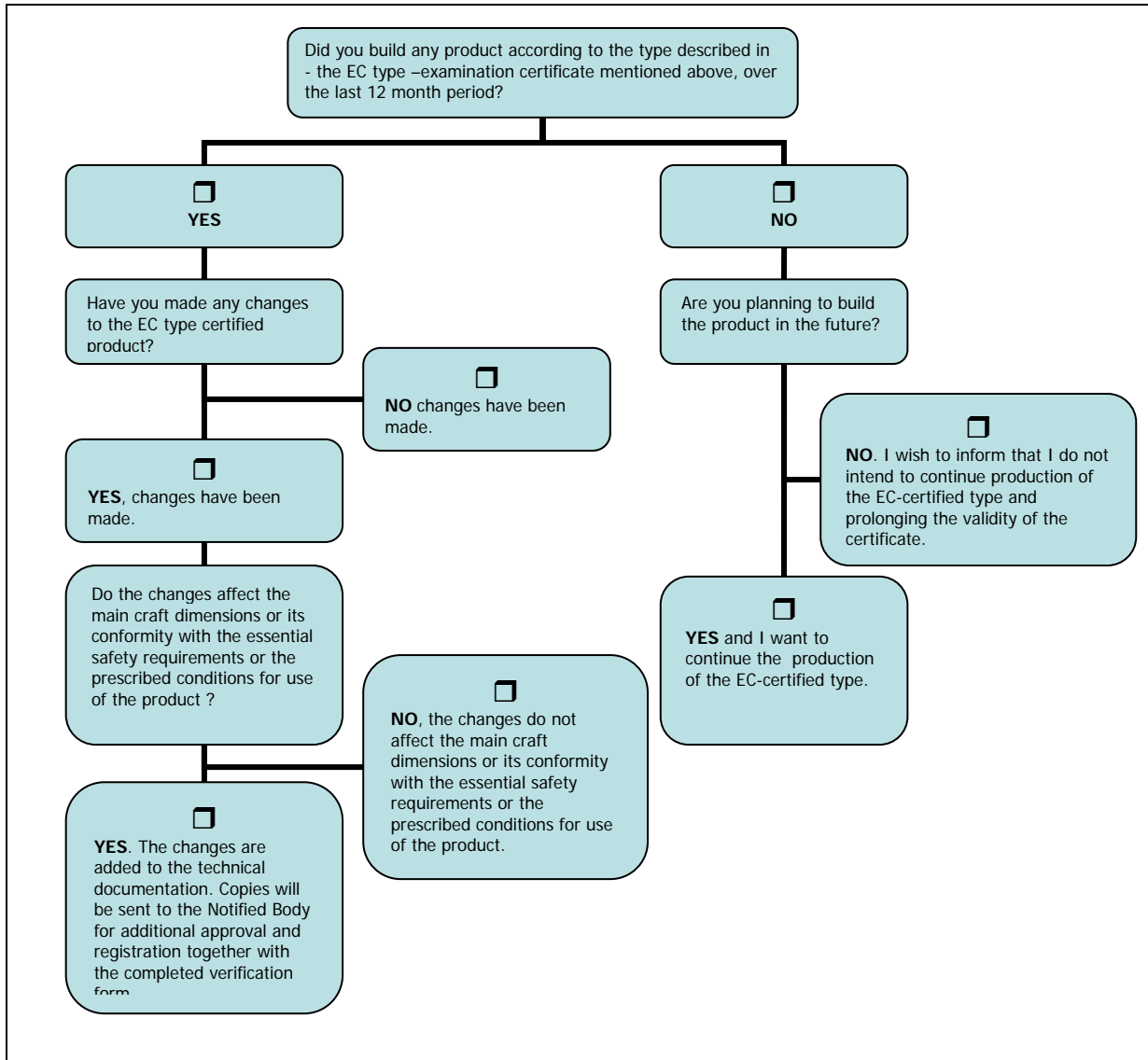
Draft Recommended Solution:

The intention of the following recommended procedure and form is to give exemplary guidance to the EC type certificate holder how to fulfill his obligations as outlined under Annex VII.

It is recommended that EC type certificate holders are following a procedure as outlined in the following Type Verification Form for RCD Annex 1A. However, Notified Bodies are free to accept different approaches to that proposed by their customers.

Type Verification Form (RCD Annex 1A)

Project data	
Reference : «Project Name»	EC type-examination «CertificateNumber» Certificate number:
Producer :	
Contact :	
Address :	
Product :	
Design category :	Assessment module: B



As signed by:	
Name :	Function :
Date :	Signature :

Type Verification Form (RCD Annex 1A)

Filling out the verification form is easy. Just answer the questions on the form and tag off the options of your choice.

In general changes are differences between manufactured product and the type described in the EC type-examination certificate which affect the product's conformity with the essential safety or other requirements concerning the performance and construction of the product.

If you have any questions or when in doubt, please contact your notified body.

Main craft dimensions

Modifications made to the main dimensions of the certified product have to be added to the technical production file. A copy of the modification has to be sent to the notified body for assessment.

Essential safety requirements for the design and construction of recreational craft

Modifications which affect the essential safety requirements as stated below have to be added to the technical production file. A copy of the modification has to be sent to notified body for assessment.

1. Boat design categories

2. General requirements

2.1.	Craft identification
2.2.	Builder's plate
2.3.	Protection against falling overboard and means of reboarding
2.4.	Visibility from the main steering position
2.5.	Owner's manual

3. Integrity and structural requirements

3.1.	Structure
3.2.	Stability and freeboard
3.3.	Buoyancy and flotation
3.4.	Openings in hull, deck and superstructure
3.5.	Flooding
3.6.	Manufacturer's maximum recommended load
3.7.	Life raft stowage
3.8.	Escape
3.9.	Anchoring, mooring and towing

Type Verification Form (RCD Annex 1A)

4. Handling characteristics

5. Installation requirements

5.1.	Engines and engine spaces
5.1.1.	Inboard engine
5.1.2.	Ventilation
5.1.3.	Exposed parts
5.1.4.	Starting outboard engine
5.2.	Fuel system
5.2.2.	Fuel tanks
5.3.	Electrical system
5.4.	Steering system
5.4.2.	Emergency steering arrangement
5.5.	Gas system
5.6.	Fire protection
5.6.2.	Fire-fighting equipment
5.7.	Navigation lights
5.8.	Discharge prevention

Essential safety requirements for the design and construction of Components

1.	Ignition protected equipment for inboard and stern drive engines
2.	Start-in gear protection devices for outboard engines
3.	Steering wheels, steering mechanisms and cable assemblies
4.	Fuel tanks and fuel hoses
5.	Prefabricated hatches and port lights