



EU RO MUTUAL RECOGNITION

TERMS AND CONDITIONS PROCEDURE FOR TYPE APPROVAL TECHNICAL REQUIREMENTS

January 2018

**Guidance Note
NI 596 DT R07 E**

Marine & Offshore
92937 Paris La Défense Cedex – France
Tel: + 33 (0)1 55 24 70 00 – Fax: + 33 (0)1 55 24 70 25
Website: <http://www.veristar.com>
Email: veristarinfo@bureauveritas.com
© 2018 Bureau Veritas - All rights reserved

AVA Documents
Document Sharing Hub



**BUREAU
VERITAS**

MARINE & OFFSHORE - GENERAL CONDITIONS

1. INDEPENDENCY OF THE SOCIETY AND APPLICABLE TERMS

- 1.1.** The Society shall remain at all times an independent contractor and neither the Society nor any of its officers, employees, servants, agents or subcontractors shall be or act as an employee, servant or agent of any other party hereto in the performance of the Services.
- 1.2.** The operations of the Society in providing its Services are exclusively conducted by way of random inspections and do not, in any circumstances, involve monitoring or exhaustive verification.
- 1.3.** The Society acts as a services provider. This cannot be construed as an obligation bearing on the Society to obtain a result or as a warranty. The Society is not and may not be considered as an underwriter, broker in Unit's sale or chartering, expert in Unit's valuation, consulting engineer, controller, naval architect, manufacturer, shipbuilder, repair or conversion yard, charterer or shipowner; none of them above listed being relieved of any of their expressed or implied obligations as a result of the interventions of the Society.
- 1.4.** The Services are carried out by the Society according to the applicable Rules and to the Bureau Veritas Code of Ethics. The Society only is qualified to apply and interpret its Rules.
- 1.5.** The Client acknowledges the latest versions of the Conditions and of the applicable Rules applying to the Services' performance.
- 1.6.** Unless an express written agreement is made between the Parties on the applicable Rules, the applicable Rules shall be the rules applicable at the time of the Services' performance and contract's execution.
- 1.7.** The Services' performance is solely based on the Conditions. No other terms shall apply whether express or implied.

2. DEFINITIONS

- 2.1. "Certificate(s)"** means class certificates, attestations and reports following the Society's intervention. The Certificates are an appraisal given by the Society to the Client, at a certain date, following surveys by its surveyors on the level of compliance of the Unit to the Society's Rules or to the documents of reference for the Services provided. They cannot be construed as an implied or express warranty of safety, fitness for the purpose, seaworthiness of the Unit or of its value for sale, insurance or chartering.
- 2.2. "Certification"** means the activity of certification in application of national and international regulations or standards, in particular by delegation from different governments that can result in the issuance of a certificate.
- 2.3. "Classification"** means the classification of a Unit that can result or not in the issuance of a class certificate with reference to the Rules.
- 2.4. "Client"** means the Party and/or its representative requesting the Services.
- 2.5. "Conditions"** means the terms and conditions set out in the present document.
- 2.6. "Industry Practice"** means International Maritime and/or Offshore industry practices.
- 2.7. "Intellectual Property"** means all patents, rights to inventions, utility models, copyright and related rights, trade marks, logos, service marks, trade dress, business and domain names, rights in trade dress or get-up, rights in goodwill or to sue for passing off, unfair competition rights, rights in designs, rights in computer software, database rights, topography rights, moral rights, rights in confidential information (including know-how and trade secrets), methods and protocols for Services, and any other intellectual property rights, in each case whether capable of registration, registered or unregistered and including all applications for and renewals, reversions or extensions of such rights, and all similar or equivalent rights or forms of protection in any part of the world.
- 2.8. "Parties"** means the Society and Client together.
- 2.9. "Party"** means the Society or the Client.
- 2.10. "Register"** means the register published annually by the Society.
- 2.11. "Rules"** means the Society's classification rules, guidance notes and other documents. The Rules, procedures and instructions of the Society take into account at the date of their preparation the state of currently available and proven technical minimum requirements but are not a standard or a code of construction neither a guide for maintenance, a safety handbook or a guide of professional practices, all of which are assumed to be known in detail and carefully followed at all times by the Client.
- 2.12. "Services"** means the services set out in clauses 2.2 and 2.3 but also other services related to Classification and Certification such as, but not limited to: ship and company safety management certification, ship and port security certification, training activities, all activities and duties incidental thereto such as documentation on any supporting means, software, instrumentation, measurements, tests and trials on board.
- 2.13. "Society"** means the classification society 'Bureau Veritas Marine & Offshore SAS', a company organized and existing under the laws of France, registered in Nanterre under the number 821 131 844, or any other legal entity of Bureau Veritas Group as may be specified in the relevant contract, and whose main activities are Classification and Certification of ships or offshore units.
- 2.14. "Unit"** means any ship or vessel or offshore unit or structure of any type or part of it or system whether linked to shore, river bed or sea bed or not, whether operated or located at sea or in inland waters or partly on land, including submarines, hovercrafts, drilling rigs, offshore installations of any type and of any purpose, their related and ancillary equipment, subsea or not, such as well head and pipelines, mooring legs and mooring points or otherwise as decided by the Society.

3. SCOPE AND PERFORMANCE

- 3.1.** The Society shall perform the Services according to the applicable national and international standards and Industry Practice and always on the assumption that the Client is aware of such standards and Industry Practice.

- 3.2.** Subject to the Services performance and always by reference to the Rules, the Society shall:

- review the construction arrangements of the Unit as shown on the documents provided by the Client;
- conduct the Unit surveys at the place of the Unit construction;
- class the Unit and enters the Unit's class in the Society's Register;
- survey the Unit periodically in service to note that the requirements for the maintenance of class are met. The Client shall inform the Society without delay of any circumstances which may cause any changes on the conducted surveys or Services.

The Society will not:

- declare the acceptance or commissioning of a Unit, nor its construction in conformity with its design, such activities remaining under the exclusive responsibility of the Unit's owner or builder;
- engage in any work relating to the design, construction, production or repair checks, neither in the operation of the Unit or the Unit's trade, neither in any advisory services, and cannot be held liable on those accounts.

4. RESERVATION CLAUSE

- 4.1.** The Client shall always: (i) maintain the Unit in good condition after surveys; (ii) present the Unit after surveys; (iii) present the Unit for surveys; and (iv) inform the Society in due course of any circumstances that may affect the given appraisal of the Unit or cause to modify the scope of the Services.
- 4.2.** Certificates referring to the Society's Rules are only valid if issued by the Society.
- 4.3.** The Society has entire control over the Certificates issued and may at any time withdraw a Certificate at its entire discretion including, but not limited to, in the following situations: where the Client fails to comply in due time with instructions of the Society or where the Client fails to pay in accordance with clause 6.2 hereunder.

5. ACCESS AND SAFETY

- 5.1.** The Client shall give to the Society all access and information necessary for the efficient performance of the requested Services. The Client shall be the sole responsible for the conditions of presentation of the Unit for tests, trials and surveys and the conditions under which tests and trials are carried out. Any information, drawings, etc. required for the performance of the Services must be made available in due time.
- 5.2.** The Client shall notify the Society of any relevant safety issue and shall take all necessary safety-related measures to ensure a safe work environment for the Society or any of its officers, employees, servants, agents or subcontractors and shall comply with all applicable safety regulations.

6. PAYMENT OF INVOICES

- 6.1.** The provision of the Services by the Society, whether complete or not, involve, for the part carried out, the payment of fees thirty (30) days upon issuance of the invoice.
- 6.2.** Without prejudice to any other rights hereunder, in case of Client's payment default, the Society shall be entitled to charge, in addition to the amount not properly paid, interests equal to twelve (12) months LIBOR plus two (2) per cent as of due date calculated on the number of days such payment is delinquent. The Society shall also have the right to withhold certificates and other documents and/or to suspend or revoke the validity of certificates.
- 6.3.** In case of dispute on the invoice amount, the undisputed portion of the invoice shall be paid and an explanation on the dispute shall accompany payment so that action can be taken to solve the dispute.

7. LIABILITY

- 7.1.** The Society bears no liability for consequential loss. For the purpose of this clause consequential loss shall include, without limitation:
- Indirect or consequential loss;
 - Any loss and/or deferral of production, loss of product, loss of use, loss of bargain, loss of revenue, loss of profit or anticipated profit, loss of business and business interruption, in each case whether direct or indirect.

The Client shall save, indemnify, defend and hold harmless the Society from the Client's own consequential loss regardless of cause.

- 7.2.** In any case, the Society's maximum liability towards the Client is limited to one hundred and fifty per-cents (150%) of the price paid by the Client to the Society for the performance of the Services. This limit applies regardless of fault by the Society, including breach of contract, breach of warranty, tort, strict liability, breach of statute.

- 7.3.** All claims shall be presented to the Society in writing within three (3) months of the Services' performance or (if later) the date when the events which are relied on were first discovered by the Client. Any claim not so presented as defined above shall be deemed waived and absolutely time barred.

8. INDEMNITY CLAUSE

- 8.1.** The Client agrees to release, indemnify and hold harmless the Society from and against any and all claims, demands, lawsuits or actions for damages, including legal fees, for harm or loss to persons and/or property tangible, intangible or otherwise which may be brought against the Society, incidental to, arising out of or in connection with the performance of the Services except for those claims caused solely and completely by the negligence of the Society, its officers, employees, servants, agents or subcontractors.

9. TERMINATION

- 9.1.** The Parties shall have the right to terminate the Services (and the relevant contract) for convenience after giving the other Party thirty (30) days' written notice, and without prejudice to clause 6 above.

- 9.2.** In such a case, the class granted to the concerned Unit and the previously issued certificates shall remain valid until the date of effect of the termination notice issued, subject to compliance with clause 4.1 and 6 above.

10. FORCE MAJEURE

- 10.1.** Neither Party shall be responsible for any failure to fulfil any term or provision of the Conditions if and to the extent that fulfilment has been delayed or temporarily prevented by a force majeure occurrence without the fault or negligence of the Party affected and which, by the exercise of reasonable diligence, the said Party is unable to provide against.

- 10.2.** For the purpose of this clause, force majeure shall mean any circumstance not being within a Party's reasonable control including, but not limited to: acts of God, natural disasters, epidemics or pandemics, wars, terrorist attacks, riots, sabotages, impositions of sanctions, embargoes, nuclear, chemical or biological contaminations, laws or action taken by a government or public authority, quotas or prohibition, expropriations, destructions of the worksite, explosions, fires, accidents, any labour or trade disputes, strikes or lockouts

11. CONFIDENTIALITY

- 11.1.** The documents and data provided to or prepared by the Society in performing the Services, and the information made available to the Society, are treated as confidential except where the information:

- is already known by the receiving Party from another source and is properly and lawfully in the possession of the receiving Party prior to the date that it is disclosed;
- is already in possession of the public or has entered the public domain, otherwise than through a breach of this obligation;
- is acquired independently from a third party that has the right to disseminate such information;
- is required to be disclosed under applicable law or by a governmental order, decree, regulation or rule or by a stock exchange authority (provided that the receiving Party shall make all reasonable efforts to give prompt written notice to the disclosing Party prior to such disclosure).

- 11.2.** The Society and the Client shall use the confidential information exclusively within the framework of their activity underlying these Conditions.

- 11.3.** Confidential information shall only be provided to third parties with the prior written consent of the other Party. However, such prior consent shall not be required when the Society provides the confidential information to a subsidiary.

- 11.4.** The Society shall have the right to disclose the confidential information if required to do so under regulations of the International Association of Classifications Societies (IACS) or any statutory obligations.

12. INTELLECTUAL PROPERTY

- 12.1.** Each Party exclusively owns all rights to its Intellectual Property created before or after the commencement date of the Conditions and whether or not associated with any contract between the Parties.

- 12.2.** The Intellectual Property developed for the performance of the Services including, but not limited to drawings, calculations, and reports shall remain exclusive property of the Society.

13. ASSIGNMENT

- 13.1.** The contract resulting from these Conditions cannot be assigned or transferred by any means by a Party to a third party without the prior written consent of the other Party.

- 13.2.** The Society shall however have the right to assign or transfer by any means the said contract to a subsidiary of the Bureau Veritas Group.

14. SEVERABILITY

- 14.1.** Invalidity of one or more provisions does not affect the remaining provisions.

- 14.2.** Definitions herein take precedence over other definitions which may appear in other documents issued by the Society.

- 14.3.** In case of doubt as to the interpretation of the Conditions, the English text shall prevail.

15. GOVERNING LAW AND DISPUTE RESOLUTION

- 15.1.** The Conditions shall be construed and governed by the laws of England and Wales.

- 15.2.** The Society and the Client shall make every effort to settle any dispute amicably and in good faith by way of negotiation within thirty (30) days from the date of receipt by either one of the Parties of a written notice of such a dispute.

- 15.3.** Failing that, the dispute shall finally be settled by arbitration under the LCIA rules, which rules are deemed to be incorporated by reference into this clause. The number of arbitrators shall be three (3). The place of arbitration shall be London (UK).

16. PROFESSIONAL ETHICS

- 16.1.** Each Party shall conduct all activities in compliance with all laws, statutes, rules, and regulations applicable to such Party including but not limited to: child labour, forced labour, collective bargaining, discrimination, abuse, working hours and minimum wages, anti-bribery, anti-corruption. Each of the Parties warrants that neither it, nor its affiliates, has made or will make, with respect to the matters provided for hereunder, any offer, payment, gift or authorization of the payment of any money directly or indirectly, to or for the use or benefit of any official or employee of the government, political party, official, or candidate.
- 16.2.** In addition, the Client shall act consistently with the Society's Code of Ethics of Bureau Veritas, <http://www.bureauveritas.com/home/about-us/ethics-and-compliance>

SECTION 1

GENERAL

This Guidance Note contains the terms and conditions, procedure for type approval and technical requirements on the basis of the works of the European Union Recognised Organisations (EU ROs) according to the provisions of article 10 of the REGULATION (EC) No 391/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 April 2009.

Application for EU RO Mutual Recognition Type Approval (EU RO MR TA) may be signed by applicants on or after 1 January 2013 (Tier I list), 1 July 2013 (Tier II list), 1 July 2014 (Tier III list), 1 July 2015 (Tier IV list), 1 January 2017 (Tier V list) or 1 July 2018 (Tier VI list) with Bureau Veritas for the products listed in this Guidance Note.

The applicable documents are given in Annexes 1 and 2.

This annex groups the documents made available by the EU ROs on the web site www.euromr.org.

The procedure for EU RO Mutual Recognition Type Approval which is described by this Note consists in three stages:

- Design evaluation, with document issued by Bureau Veritas upon satisfactory completion,
- Production Quality Assurance assessment, with document issued by Bureau Veritas upon satisfactory completion,
- EU RO Mutual Recognition Type Approval certificate, issued by Bureau Veritas upon satisfactory completion of the procedure.

When the EU RO is Bureau Veritas, it means Bureau Veritas Marine & Offshore Division and its local offices, while “surveyor” means the technical staff of Bureau Veritas Marine & Offshore performing tasks in relation to classification and survey duties.

All the corresponding services are provided within the scope of Bureau Veritas Marine & Offshore General Conditions enclosed and made available on the internet site <www.veristar.com>.

Table of Contents**Terms and Conditions for Mutual Recognition of Type Approval****General Information**

Appendix I	EU RO MR Type Approval Certificate Information
Appendix II	Flow chart technical and procedural conditions for EU RO MR of Type Approval Certificates
Appendix III	List of Products included in EU RO MR
Appendix IV	List of EU Recognised Organisations (EU ROs)
Appendix V	EU RO MR Design Evaluation Scheme
Appendix VI	EU RO Production Quality Assurance (PQA)
Appendix VII	Link to Agreed Technical Requirements
Appendix VIII	EU RO MR Maintenance Process
Appendix IX	EU RO MR Request for Clarification (RfC) Process
Appendix X	EU RO Material, Equipment & Component non-compliance ("Alert System")

EU RO Framework Document for the Mutual Recognition of Type Approval

Document Issue Date	10 November 2017
Version	8.0
Status	Controlled
Issued by	EU RO MR Group Secretariat
Distribution	All EU RO Type Approval Departments
Purpose of Document	The document has been designed to help ensure consistency in the EU RO Mutual Recognition Type Approval process. The EU RO MR Type Approval Process consists of three main processes: 1. The EU RO MR Design Evaluation involving Engineering evaluation and Witnessing of manufacturing and testing processes; 2. The EU RO MR Production Quality Assurance (PQA) which aims to ensure the consistency of production with the approved design and manufacturing process; 3. The EU RO MR Maintenance Process which aims to ensure all changes to EU RO MR Documentation go through the appropriate review and approval process; consulting with industry where necessary. This document supersedes the following referenced documents and appendices within the 'Mutual Recognition within ship classification' First Report to the European Commission and the Member States, Oct 2012: • 12.2 EU Recognised Organisations (EU ROs); • 12.5 EU RO Mutual Recognition for Type Approval Terms and Conditions; • 12.6 EU RO Mutual Recognition Procedure for Type Approval (including appendices). -End -

Document Administration

1. Content

The EU RO MR Group Secretariat is responsible for maintaining the content of this document. Members of the EU RO MR group are responsible for reviewing and approving the content;

2. Changes

Anyone wishing to propose changes to this document should contact their EU RO MR Steering Committee or Technical Committee representative. Significant changes will be reviewed by the EU RO MR Steering Committee. Review and approval of document change Requests shall follow the EU RO MR Maintenance Process detailed in this document (see Appendix VIII);

3. Controlled Issue

This document and related appendices are subject to controlled issue and can be found here: <http://www.euomr.org/Guidance%20for%20Mutual%20Recognition>

4. Revision History:

Revision No.	Details of Change	Date Issued
1.0	Document issued	2014-01-31
2.0	- Revised Terms & Conditions; - Updated List of Products included in EU RO MR (Appendix IV); - New 'Request for Clarification' process (Appendix IX); - New 'Alert' Process (Appendix X); - Plus other minor editorial changes.	2014-07-01
3.0	- Revised Terms & Conditions; - Revised General Information; - Revised EU RO MR Type Approval Certificate Information (Appendix I); - General editorial updates.	2015-04-17
4.0	- Updated RO List to reflect Official Journal of the European Union No. 2015/C 162/06 'List of organisations recognised on the basis of Regulation (EC) No 391/2009...' - Revised Terms & Conditions; - Revised General Information; - Revised EU RO MR Type Approval Certificate Information (Appendix I); - Updated List of Products included in EU RO MR (Appendix IV);	2015-07-01

..Continued

4. Revision History (continued):

Revision No.	Details of Change	Date Issued
5.0	- Revised General Information - addition of clause 13 (application period); - Revision to EU RO MR Design Evaluation Scheme (Appendix V); - Revised 'Request for Clarification' process (Appendix IX); - General editorial updates	2016-05-05
6.0	- New address Document Owner - Updated List of Products (Appendix III) - General editorial updates	2016-08-15
7.0	- Definition 'Nationally Accredited Laboratory' added under General Information - Inserting of IRS - Group Logo (incl. IRS) updated - Renaming of Advisory Board (AB) to Steering Committee (SC) - Table Revision History: Column 'Document Date' deleted	2017-03-15
8.0	'General Information' revised - Logos of CRS and KR updated	2017-11-10

5. Document Owner

EU RO MR Secretariat
c/o DNV GL Maritime
Brooktorkai 18
20457 Hamburg
Germany
Email: secretariat@euromr.org

- End -

Contents

	Page
Terms and Conditions for Mutual Recognition of Type Approval	5
General Information	8
Appendix I EU RO MR Type Approval Certificate Information	11
Appendix II Flow chart technical and procedural conditions for EU RO Mutual Recognition of Type Approval Certificates	12
Appendix III List of Products included in EU RO MR	13
Appendix IV List of EU Recognised Organisations (EU ROs)	15
Appendix V EU RO MR Design Evaluation Scheme	16
Appendix VI EU RO MR Production Quality Assurance (PQA)	17
Appendix VII Link to Agreed Technical Requirements	19
Appendix VIII EU RO MR Maintenance Process	20
Appendix IX EU RO MR Request for Clarification (RfC) Process	22
Appendix X EU RO MR Material, Equipment & Component Non-Compliance ('Alert System')	25

Terms and Conditions for Mutual Recognition of Type Approval

Note: These terms and conditions form an integral part of the agreement to be established between the certifying EU RO and its client for the provision of mutual recognition type approval services. The terms and conditions are required to enable the uniform application and acceptance of products that are subject to mutual recognition certification and to allow EU ROs access to information that would not normally be available to them where they are not in a direct contractual relationship with the manufacturer.

1. This document establishes a common set of requirements that will be applied to manufacturers of marine equipment or components (product[s]) where such products are to benefit from the Mutual Recognition of Type Approval by the European Union recognised classification societies (hereafter described as EU ROs) under EU regulations.
2. The European Union Recognised Organisation (EU RO) Mutual Recognition Type Approval Certificate (MR TAC) is issued in pursuance of Article 10 of the Regulation (EC) No 391/2009 of the European Parliament and of the Council from 23 April 2009 on Common Rules and Standards for Ship Inspection and Survey Organisations. Technical Requirements applicable to products under MR are adopted by the EU ROs pursuant to same Article 10. These Technical Requirements may be amended from time to time (see Appendix VIII EU RO MR Maintenance Process).
3. The MR TAC is intended to enable Mutual Recognition (MR) of certain type-approved products, through the uniform application of MR Technical Requirements, to enable those products to be installed on board ships for which MR TACs are issued by one or more of the EU ROs.
4. The EU ROs currently are:
 - American Bureau of Shipping (ABS);
 - Bureau Veritas (BV);
 - China Classification Society (CCS);
 - Croatian Register of Shipping (CRS);
 - DNV GL;
 - Indian Register of Shipping (IRS)
 - Korean Register (KR);
 - Lloyd's Register Group Ltd. (LR);
 - Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK);
 - Polish Register of Shipping (PRS);
 - RINA Services S.p.A. (RINA);
 - Russian Maritime Register of Shipping (RS).

...continued

5. The MR TAC applies to certain type approved products (see Appendix III) to be installed on board a ship as defined in Article 2 (a) of the Regulation (EC) No. 391/2009, and which is classed by one or more of the EU ROs listed in paragraph 4 (above).

For products intended to be installed on board a ship that does not fall within the above scope, the requirements of relevant class societies shall apply.

6. The manufacturer will be required to sign a contract with the EU RO providing the MR TAC service and certificate; such contracts will include terms, whereby the manufacturer accepts expressly that:

- a. When a product is intended to be installed on board as an element or sub-element of a piece of equipment, part or system of the ship, the EU RO classing the ship that is not the certifying EU RO for the MR TAC of the product may ask for information in addition to that provided in the MR TAC;
- b. The manufacturer is explicitly required to provide immediately, when so requested, all information, documentation and/or evidence required by the certifying EU RO of the ship as detailed in the relevant MR Technical Requirement(s)(TR). The language to be used for all requested information, documentation and evidence shall be English;
- c. The MR TAC may be suspended or withdrawn by the certifying EU RO, issuing it (see 11d below); and
- d. Flag national authorities may have their own requirements for the approval of products to be installed aboard ships flying their flag. Both the requirements of national authorities and those of the classification Rules must be complied with by the manufacturers of the products to be installed aboard such ships.

7. The manufacturer must ensure and certify that the product(s) supplied for an individual ship under a MR TAC is (are) marked with suitable identification to ensure traceability.

8. The manufacturer is required to operate and maintain a quality management system certified by an accredited certifying body to the ISO 9001 standard or equivalent and that this certified quality management system is applied in the production of the product(s) for which MR TAC is sought.

9. The manufacturer will be required to agree that it will:

- a. Follow the requirements of the certified quality management system and the quality assurance scheme as approved during production;
- b. Keep the accrediting body and the certifying EU RO that issued the

MR TAC duly informed, in writing, of any intended design change or updating of the production quality assurance scheme for its consideration with regard to the validity of the MR TAC; and,

- c. Apply annually for periodical assessment by the EU RO to demonstrate that the production under the MR TAC and the quality assurance scheme are being satisfactorily maintained.

10. Upon satisfactory completion of the conformity assessment procedure of the manufacturer's product(s), the EU RO may issue a MR TAC for the concerned product(s) with a maximum validity of 5 years.

11. The MR TAC of an existing product remains valid until:

- a. Its expiry date; or
- b. Such time as any material modification of the design or construction is made, without the written approval of the certifying EU RO; or
- c. Such time as the manufacturer has not fulfilled its obligations of annual assessment; or
- d. Such time as the MR TAC is suspended or withdrawn by the certifying EU RO.

Validity may be extended in case of b, c, or d above, following further review by the EU RO providing the MR TAC according to the MR TAC requirements.

Any changes of MR Technical Requirements (including those resulting from updates and changes to nationally or internationally recognised standards) may be implemented based only on the amended rules of individual ROs.

12. The MR TAC retains its validity, and remains acceptable for installation on vessels, based on the actual Edition of the Rules applicable to such vessels. If the applicable Rules' edition year for a given vessel is subsequent to the year of issuance of the latest update of referenced MR technical requirements (MR TRs), then a revalidation of the MR TAC may be needed, for compliance with latest update of MR TRs in order to enable acceptance of product for installation on that vessel;

13. The manufacturer of a MR TAC product, its heirs and designees are responsible for the archiving and retention of:

- a. all records of the design and construction approved by the EU RO;
- b. the records of type testing; and
- c. the quality records of the production under the MR TAC

for seven years after the validity of the relevant MR TAC has expired.

-End-

General Information

1. The purpose of this Agreed Procedure is to provide a Framework Document setting out the minimum steps necessary to enable mutual recognition (MR) of certain type approved products, through the uniform application of agreed technical requirements relating to equipment listed in Appendix III to be placed on board ships for which MR TACs are issued by one or more of the EU ROs listed in Appendix IV.
2. For the purpose of this Agreed Procedure the following definitions shall apply:
 - a. **Agreed MR Technical Requirements (MR TR)** - a mutually agreed document or documents that prescribe technical requirements to be fulfilled by a design, product, process or service (see Appendix VII);
 - b. **Assessment** - is the process of evaluating a design, product service or process. It involves generating and collecting evidence of the design, product service or process and judging that evidence against defined standards;
 - c. **Certification** - a procedure whereby a design, product, service or process is assessed for compliance with agreed technical requirements;
 - d. **Classification** - that specific type of certification, for which the technical requirements are the Rules of the relevant Classification Society;
 - e. **Design Evaluation** – Two-step process involving Engineering evaluation and Witnessing the manufacturing and testing processes;
 - f. **Engineering evaluation** - Evaluation of a design of a type of the product to determine compliance with the agreed technical requirements;
 - g. **Installed on Board a Ship** - the assembling and final placement of components, equipment and subsystems to permit operation of the system on board of the ship;
 - h. **Manufacturer** - a company producing and/or assembling final products and is responsible for such products;
 - i. **Nationally Accredited Laboratory** - Laboratory holding an accreditation certificate to ISO/IEC 17025 covering the applicable testing standards which is issued by a national accreditation body operating in accordance with ISO/IEC 17011, unless otherwise defined in the applicable Technical Requirement.
 - j. **Product** – is material, equipment and component (ME&C);

7. Individual ROs are responsible for:
 - a. Giving detailed reasons to a manufacturer when an MR TAC is refused; and
 - b. Making available information when an MR TAC is withdrawn.
8. Manufacturer's responsibility
 - a. Where a manufacturer reapplies for type-approval for products for which an MR TAC has been refused, his submission to the EU RO must include all relevant documentation, including the original test reports, the detailed reasons for the previous refusal and details of all modifications made to the product or manufacturing process;
 - b. The manufacturer shall provide other ROs, on request, with relevant information on Design Evaluation documentation that has been amended or superseded.
9. In cases where the EU RO classing the ship refuses material, equipment or components, issued with an EU MR TAC, the EU RO classing this ship is to inform, without delay, the EU RO Steering Committee Chairman, Secretary and Members. Such information is to include, in writing:
 - the type of product;
 - the references of the EU RO MR TAC;
 - the reason(s) for refusal.

The EU RO MR Steering Committee Chairman shall, in turn, inform the EU RO MR Technical Committee Chairman and Technical Committee Members. See also Appendix X - EU RO MR Material, Equipment & Component Non-compliance ('Alert System').
10. The EU RO MR Technical Committee shall meet on an annual basis, or as required, to review the Agreed Technical Requirements of existing products identified in Appendix III and to consider new products for inclusion in the Appendix as required.
11. New and revised existing MR Technical Requirements shall enter into force 6 months after the adoption date to allow for their implementation by the EU ROs.

- End -

APPENDIX I

EU RO MR Type Approval Certificate Information

The EU RO MR Type Approval Certificate (MR TAC), issued by the certifying EU RO using its own certificate format, logo and numbering system, shall contain the following information as a minimum (*see notes 1 & 2 below*):

Certificate Heading

Mutual Recognition Type Approval Certificate

Certificate number

Each EU RO MR Type Approval Certificate is to be issued with the certifying EU RO's specific number to ensure traceability

Company Information

Manufacturers Name

Street Address, City, State, Postal Code, Country

Product Information

Product

Model

Intended Service

Description

Ratings

Restrictions (limitations as outlined by the Technical requirements)

Test reports with identification number and date

Manufacturer's documentation/identification number for product or series with date

Term of Validity (*see notes 3- 5 below*)

Place of Issue

Issue Date

Expiration Date

Rules & Standards

Technical requirement reference

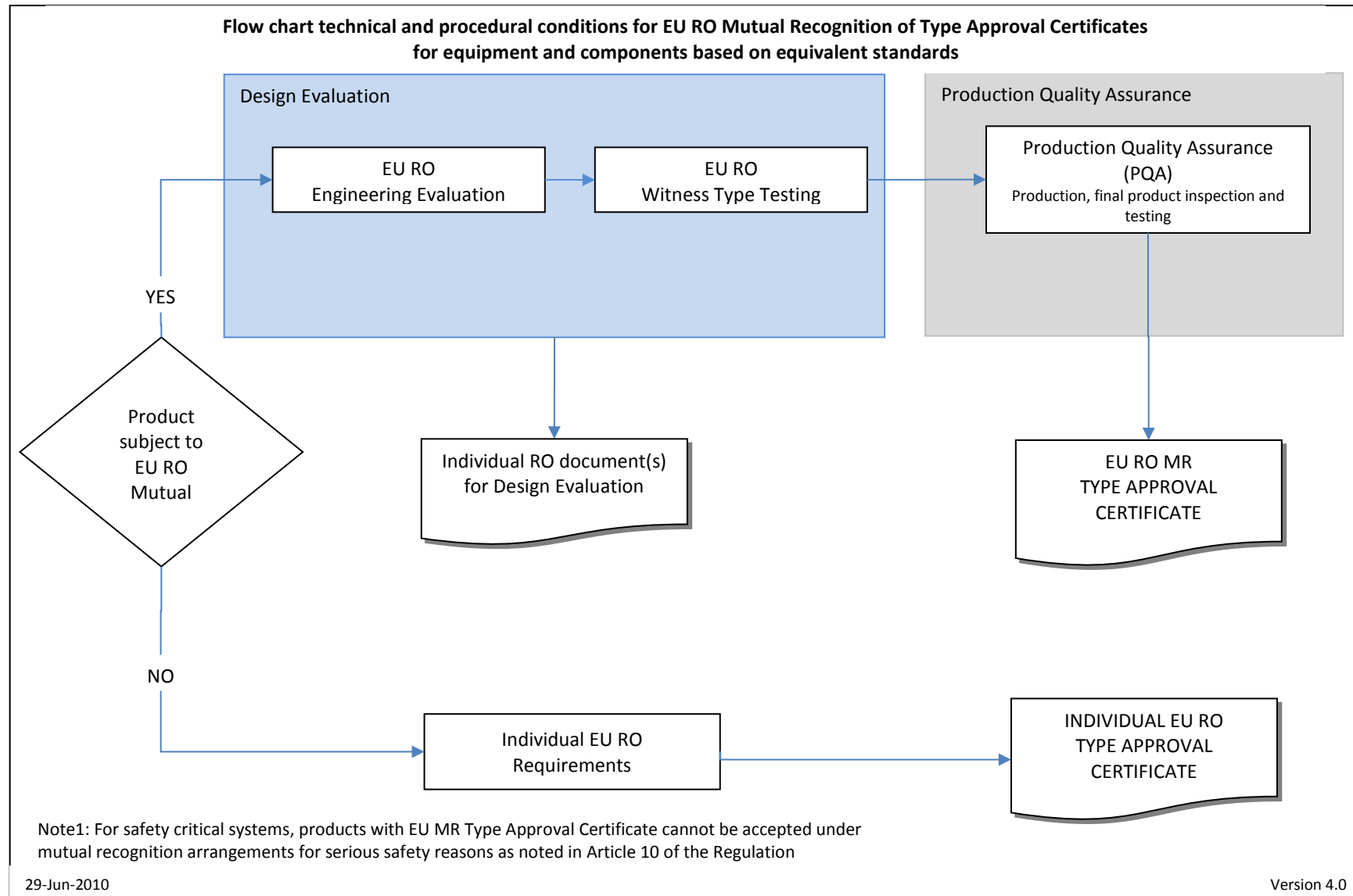
Other standards as applicable

Notes:

- 1) Refer to the agreed MR Technical Requirements for additional MR TAC information that may be specifically applicable to certain products - <http://www.euromr.org/technical-requirements>;
- 2) List of MR TACs issued by the EU ROs can be found by visiting <http://www.euromr.org/links-to-mr-certificates>.
- 3) As per clause 9 of the Terms & Conditions for Mutual Recognition of Type Approval, the manufacturer will be required to agree that it will fulfil the obligations arising out of its quality assurance scheme as approved during production. The manufacturer certifies it has kept the accredited certification body and the EU RO that issued the MR TAC duly informed of any intended design changes or updating of the production quality assurance scheme for its consideration with regard to the validity of the MR TAC. The manufacturer will apply annually for periodical assessment by the EU RO to show that the production under the MR TAC and the quality assurance scheme are being satisfactory maintained;
- 4) MR TACs are valid for a maximum of 5 years as per clause 10 of the Terms & Conditions for Mutual Recognition of Type Approval;
- 5) For more information on the factors affecting the validity of MR TACs, see clause 11, 12 and 13 of the Terms & Conditions of Mutual Recognition of Type Approval.

- End -

APPENDIX II



APPENDIX III

List of Products included in EU RO MR

Tier 1 (Original release date January 2013)

1. Circuit Breakers
2. Contactors
3. Electric Driven Motors < 20 kW
4. Fuses
5. Display Monitors, Video Screens, Terminals
6. LV Enclosures & Boxes
7. LV Transformers
8. Mechanical Joints
9. Resin Chocks
10. Switches
11. Sensors

Tier 2 (Original release date July 2013)

12. Accumulator Battery
13. Air Pipe Automatic Closing Device
14. Cable Ties
15. Class III Pipe Fittings
16. Computers and PLCs
17. Electrical/Electronic Relays
18. Electric Cables - Heating Cables
19. Expansion Joints
20. Flameproof Luminaire (Lighting Fixture)
21. Plastic Piping Systems (Components)
22. Spark Arresters

Tier 3 (Original release date July 2014)

23. Adjustable Steel Chock
24. Air Compressor
25. Battery Chargers
26. Boiler Remote Level Indicator
27. Cable Trays & Ducts (Glass Reinforced Plastic)
28. Cable Trays & Ducts (Metallic)
29. Connecting Systems for Cable Repair (Cable Splices)
30. Electrical Actuators for Valves
31. Insulation Panels for Provision Rooms & Chambers
32. Pneumatic Actuators for Valves
33. Solenoid Valve Assembly
34. Stationary Lighting Fixtures/Flood Light Projectors

Tier 4 (Original release date July 2015)

35. Circuit Breakers with Electronic Devices
36. Contactors with Electronic Devices
37. Tachometer
38. Temperature Gauges and Transmitters
39. Thermal Insulation of Organic Foams for Piping
40. Valves for Bilge Systems
41. Valves for Freshwater Systems
42. Valves for Lubricating Oil & Hydraulic Oil Systems
43. Valves for Sanitary Systems
44. Valves for Seawater Systems

APPENDIX III

Tier 5 (Original release date July 2016)

- 45. AC Semiconductor Controllers
- 46. Control and Protective Switching Devices
- 47. Electronic Power Units for Valve Control
- 48. Electro-Pneumatic Level Transmitters (EPLT)
- 49. Flow Gauges/Transmitters
- 50. Level Gauges/Transmitters
- 51. LV Soft Starters
- 52. Pilot Devices
- 53. Pressure Gauges - Transmitters
- 54. Valves for Fuel Oil Systems
- 55. Valves for Cargo Systems

For a list of MR Technical Requirements under development, see
<http://www.euromr.org/tr-development>

- End -

APPENDIX IV

List of EU Recognised Organisations (EU ROs)

American Bureau of Shipping (ABS) - www.eagle.org

Bureau Veritas (BV) - www.veristar.com

China Classification Society (CCS) - www.ccs.org.cn/ccswzen/

Croatian Register of Shipping (CRS) – www.crs.hr

DNV GL – www.dnvgl.com

Indian Register of Shipping – www.irclass.org

Korean Register (KR) - www.krs.co.kr

Lloyd's Register Group Ltd. (LR) - www.lr.org

Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK) - www.classnk.or.jp

Polish Register of Shipping (PRS) - www.prs.pl

RINA Services S.p.A. (RINA) - www.rina.org/en

Russian Maritime Register of Shipping (RS) - www.rs-class.org/en

- End -

APPENDIX V

EU RO MR Design Evaluation Scheme

Procedure:

1. An application for the Design Evaluation must be submitted by the manufacturer or product designer (hereinafter 'applicant') to the EU RO and shall include:
 - a) the name and address of the manufacturer or product designer; and
 - b) the technical documentation as described in point 2 below.
2. The technical documentation shall make it possible to assess the product's compliance with the agreed technical requirements.
3. The EU RO will review the submitted technical documentation to confirm compliance with the agreed technical requirements. The language to be used for all documentation shall be English. The technical documentation includes (but is not limited to) type test reports, product descriptions, operation manuals, assembly drawings, dimension drawings, etc.
4. The applicant shall issue a statement verifying that the product to be tested has been manufactured in accordance with the technical documentation.
5. Where required, the EU RO will agree the location where the examinations and necessary tests will be carried out with the applicant.
6. Type tests shall always be witnessed by the EU RO's surveyor. However, in cases where the tests are conducted at a Nationally Accredited Laboratory¹, the presence of the EU RO's surveyor may be omitted.
7. The type tests shall be conducted on the test specimen(s) selected from production line or at random from stock in the presence of an EU RO surveyor in accordance with the agreed type test program.
8. Where the type tests are conducted at a Nationally Accredited Laboratory without the presence of the EU RO surveyor, the applicant shall provide assurance to the EU RO surveyor selecting the test specimen(s), that the test specimen(s) to be sent to and tested at the Laboratory shall be verified in accordance with an agreed procedure.
9. Where the product meets the relevant agreed technical requirements, the EU RO will issue an individual Design Evaluation document to the applicant. The document must give the name and address of the applicant, details of the product, the conclusions of the examination, the conditions of its validity and the necessary data for identification of the approved product.
10. The applicant must inform the EU RO that issued the MR Type Approval Certificate (MR TAC) and which holds the technical documentation of any modification of the design, which must receive additional approval, where such changes may affect compliance with the agreed TR or the prescribed conditions for use of the product. Such additional approval, if given, must be in the form of an addition to the original EU RO MR TAC.
11. The applicant must provide, upon request, the Design Evaluation documents to each EU RO.

- End -

¹ "The scope must be accredited for the relevant applicable standards as specified in the individual MR Technical Requirements (see www.euromr.org/technical-requirements)"

APPENDIX VI

EU RO Production Quality Assurance (PQA)

Procedure:

1. A manufacturer who satisfies the obligations of point 2 below must ensure that the product(s) concerned conform to type as described in valid EU RO Design Evaluation documents. The documents must be issued by the EU RO responsible for the whole EU RO Type Approval process (hereinafter called "the EU RO"), i.e. both Design Evaluation and Production Quality Assurance. The manufacturer must ensure that the product(s) supplied for an individual ship under a MR TAC is (are) marked with suitable identification to ensure traceability.
2. The manufacturer must operate a quality management system certified by an accredited certifying body as meeting the requirements of ISO 9001 or industry equivalent. The Production Quality Assurance scheme must be approved by the EU RO for production, final-product inspection and testing of the product(s) subject to EU RO MR Type Approval as specified in point 3 below and must be subject to surveillance as specified in point 4 below. The approval shall only be valid as long as the Quality Management System certificate is valid. The manufacturer has to inform the EU RO if the Quality Management System certificate is suspended, withdrawn or not renewed.

3. Production Quality Assurance scheme

- 3.1. The manufacturer must submit an application for assessment of his Production Quality Assurance scheme according to point 2 above with the EU RO. The application must include:
 - a) all relevant information for the product(s) envisaged
 - b) full list of all manufacturing/production sites
 - c) the documentation concerning the quality management system and its certification at all manufacturing sites, including:
 - i. the quality management system certificate issued by the certifying body,
 - ii. the manufacturing, quality-control and quality-assurance techniques, processes and systematic actions that will be used;
 - iii. the examinations and tests that will be carried out before, during and after manufacture, and the frequency with which they will be carried out;
 - iv. the quality records, such as inspection reports and test data, calibration data, damage and claim records, qualification reports of the personnel concerned, etc.;
 - v. the means of monitoring the achievement of the required product quality and the effective operation of the quality system.
- 3.2. The EU RO shall assess the documented Production Quality Assurance scheme to determine whether it gives reasonable confidence that the concerned product(s) can be consistently produced in compliance with the product(s) covered by the Design Evaluation document(s). The assessment procedure must also include a review of the quality management system documentation and a visit to the manufacturer's premises and all manufacturing/production sites. A report of the audit assessment is provided to the manufacturer.

APPENDIX VI

- 3.3. The manufacturer must undertake to fulfill the obligations arising out of the Production Quality Assurance scheme as approved and to uphold it so that it remains adequate and efficient. The manufacturer must keep the EU RO that has evaluated the Production Quality Assurance scheme informed of any intended updating of that Production Quality Assurance scheme for its consideration with regard to the validity of the EU MR Type Approval Certificate. The manufacturer is to apply for periodical assessment to the EU RO at an annual frequency to enable the EU RO that issued the TAC to verify that the Production Quality Assurance is maintained and applied. Audit reports are to be provided to the manufacturer.

4. Periodical Assessment by the EU RO

- 4.1. The purpose of surveillance is to make sure that the manufacturer duly fulfils the obligations arising out of the approved Production Quality Assurance scheme.
- 4.2. The manufacturer must allow the EU RO access for inspection purposes to the locations of manufacture, inspection and testing and storage and must provide it with all necessary information, in particular:
- a) the Production Quality Assurance scheme documentation and the design evaluation documentation;
 - b) the quality records, such as inspection reports and test data, calibration data, damage and claims records, qualification reports of the personnel concerned, etc.;
 - c) additional testing as per the Technical Requirements may be required by the EU RO.
5. Upon satisfactory completion of the Design Evaluation and Production Quality Assurance evaluation, the EU RO may issue an EU MR TA C for the concerned product(s) with a maximum validity of 5 years. The document must give the name and address of the manufacturer and all manufacturing sites, any conditions of the TAC's validity and the necessary data for identification of the approved product(s).

- End -

APPENDIX VII

Agreed Technical Requirements

Controlled copies of the Agreed Technical Requirements are available from:

<http://www.euomr.org/technical-requirements>

- End -

APPENDIX VIII

EU RO MR Maintenance Process

1. Change Requests and/or feedback for the Agreed Technical Requirements (Appendix VII) and/or any EU RO MR Document (including procedures) shall be made in writing to the relevant EU RO (Appendix IV) marked for the attention of their EU RO MR Technical Committee Representative. The EU RO MR Technical Committee and Steering Committee follow the process in **figure 1 below**.
2. Change Requests include (but are not limited to) procedural updates, test requirement updates, rule changes or industry feedback and can vary in significance from a simple editorial change to a technical parameter or test change that may require industry consultation.
3. Amendments and revisions to documents including the Agreed Technical Requirements are endorsed (where appropriate) by the EU RO MR Steering Committee and are re-issued on or around 31 March each year.^②

APPENDIX VIII

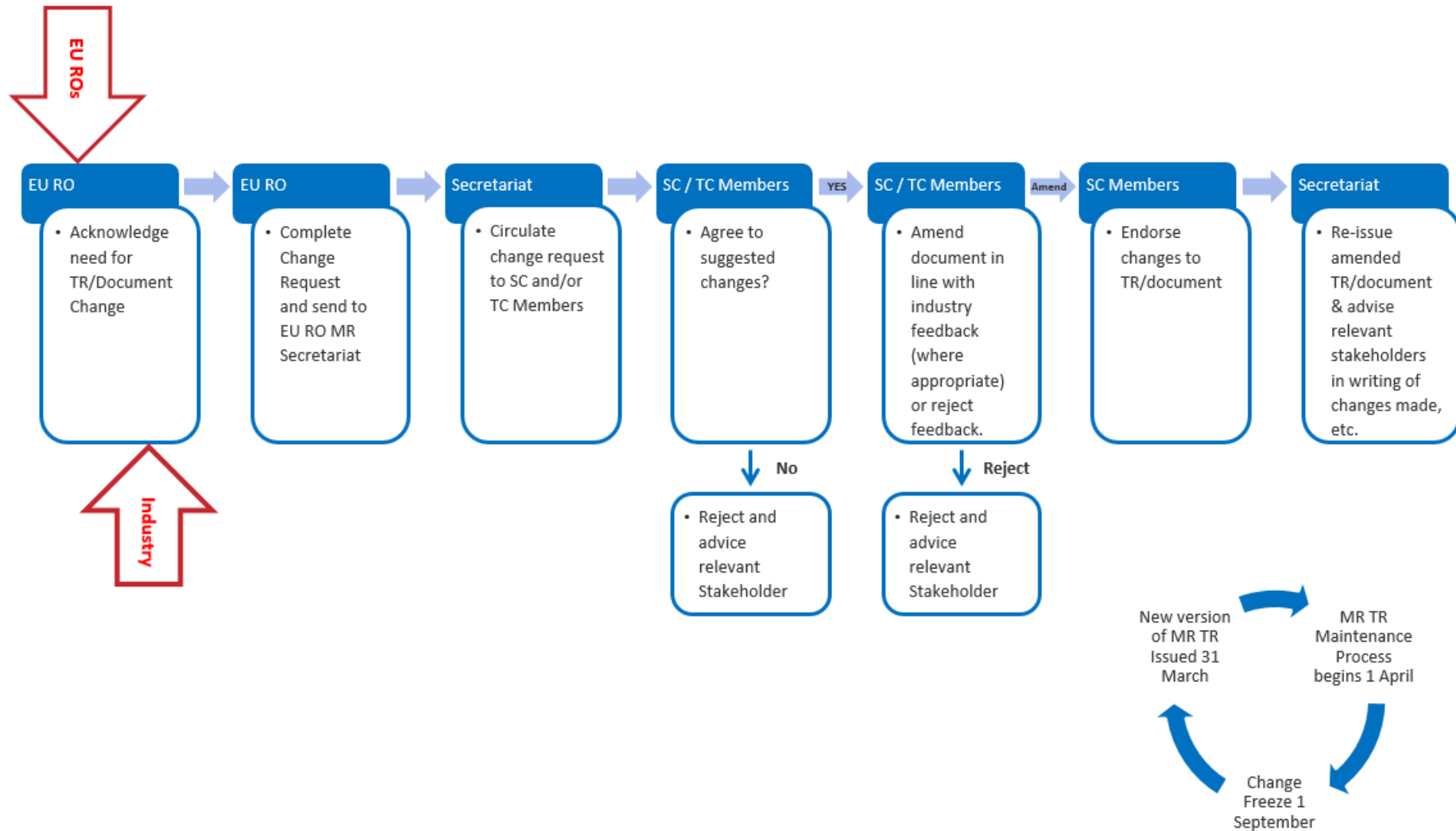


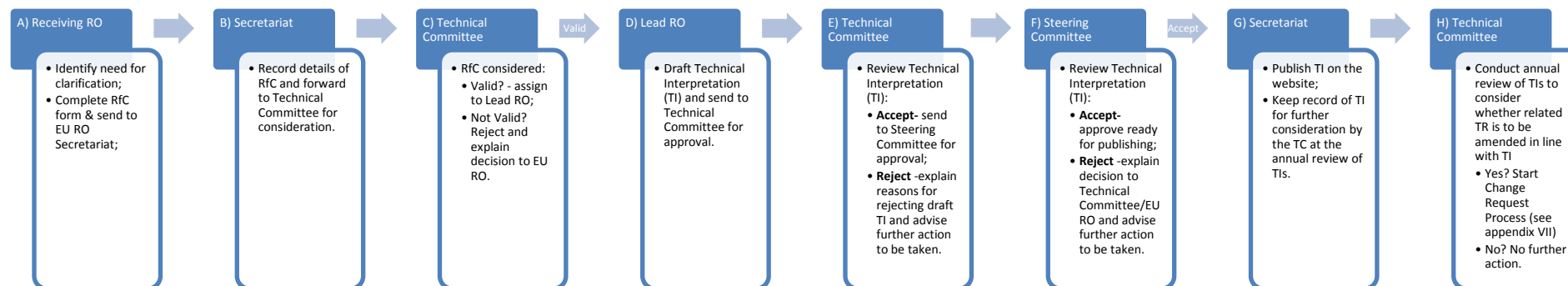
Figure 1 - EU RO MR Maintenance Process

- ② The deadline for submissions of a change request (i.e. change freeze) is 1 September each year to ensure changes are considered for inclusion in the following 31 March reissue. Any change requests received after that date may not be reviewed until the year after.

- End -

APPENDIX IX

EU RO MR Request for Clarification (RfC) Process



1. A Request for Clarification (RfC) for the purpose of unique understanding of the Agreed Technical Requirements (Appendix VII) and/or any EU RO MR Document (including procedures) shall be made in writing by the requesting entity to the relevant EU RO (Appendix IV), marked for the attention of their 'EU RO MR Technical Committee Representative'. The EU RO MR Technical Committee Representative (hereinafter referred to as the Receiving RO) will then follow the process above.
2. A Request for Clarification (RfC) requires the requesting entity to provide sufficient information on the subject for which clarification is being sought, along with the related technical background, a clear definition of the problem to enable the Receiving RO to create a distinct proposal for how to achieve clarification² - see step A) in the process above.
3. The proposed Request for Clarification (RfC) shall be verified by the EU RO MR Technical Committee (and EU RO MR Steering Committee where necessary) to ensure that the proposal does not conflict with basic provisions of the Design Evaluation (DE) (Appendix V), the Product Quality Assurance (PQA) regime (Appendix VI) and the EU RO MR 'Simplified Risk Based Model' see step C) in the process above.

² The receiving RO shall provide the TC with their expert's view together with the RfC form (available from the Secretariat) in order to help facilitate the creation of a Technical Interpretation.

APPENDIX IX

4. If the proposed Request for Clarification (RfC) is verified and accepted, the EU RO MR Technical Committee will assign a lead RO to draft a Technical Intreparation (TI) – see step D) in the process above. The draft TI will be reviewed and approved by the EU RO MR Technical Committee and then forwarded to the EU RO MR Steering Committee for agreement – steps E) and F). Once agreed, it will then be published as a final version on www.euomr.org/technical-requirements for information and notification of publication will be sent to the requesting entity. All TIs will be kept as a record and searchable resource by the EU RO MR Secretariat. The Secretary will ensure that the following information is gathered in respect for each TI:
- a) Date received by Secretariat
 - b) Date referred to TC
 - c) TI Number
 - d) Date sent from TC to Lead RO
 - e) Name & contact details of Lead RO
 - f) Date of TI submission from Lead RO to TC
 - g) Date of TI approval by TC
 - h) Date TI referred to SC;
 - i) Date of SC agreement of TI;
 - j) Date TI Published;
 - k) Applicable TR(s) to be amended YES/NO;
 - l) Any relevent comments;
 - m) CRF No (s) (if applicable).
5. In cases where the Request for Clarification (RfC) (or subsequent TI) is rejected by the EU RO MR Technical Committee and/or EU RO MR Steering Committee, the Receiving RO shall advise the requesting entity accordingly. All record of rejected RfC (including reasons) will be kept as a record and searchable resource by the EU RO MR Secretariat.

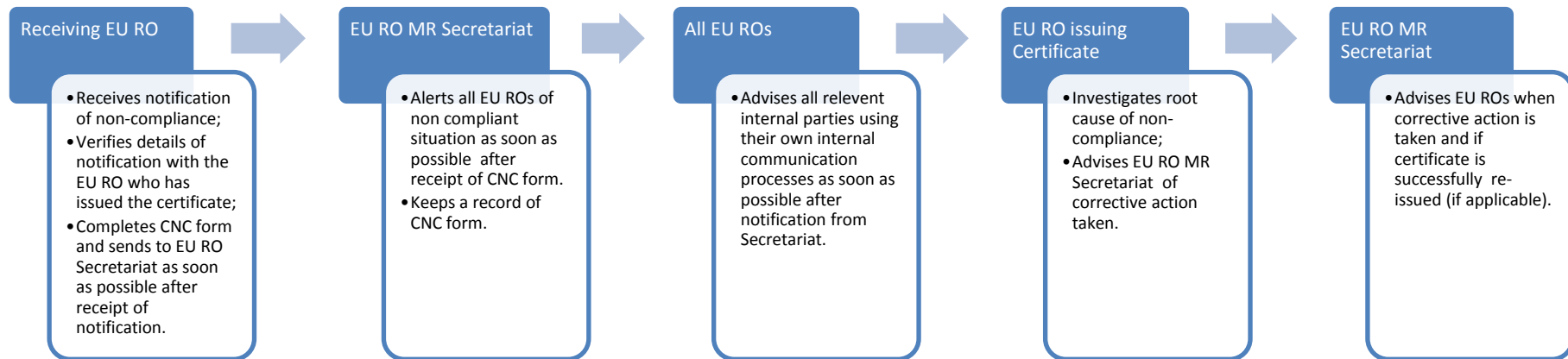
APPENDIX IX

6. An annual review of TIs will be conducted by the EU RO MR Technical Committee in September each year to ensure ongoing relevance and a decision will be taken on each TI as to whether the related Agreed Technical Requirement should be amended to incorporate the outcome of the TI – see step H) in the process above. Where a TI is considered to be out of date or no longer relevant the necessary actions will be taken to update or rescind the document.
7. If it is agreed that the Agreed Technical Requirement should be amended, the EU RO MR Technical Committee will assign a lead RO to complete the EU RO MR Maintenance Process (see Appendix VIII).

- End -

APPENDIX X

EU RO MR Material, Equipment & Component Non-Compliance ('Alert System')



1. The purpose of the 'Alert System' is to ensure that all EU ROs are informed when a mutually recognised product is not in compliance with its MR TAC. Regulation (EC) 391/2009 article 10.1 paragraph 3 states:

Where a recognised organisation ascertains by inspection or otherwise that material, a piece of equipment or a component is not in compliance with its certificate, that organisation may refuse to authorise the placing on board of that material, piece of equipment or component. The EU RO shall immediately inform the other EU ROs, stating the reasons for its refusal.

2. The EU RO that receives the notification of a potential non-compliance situation (hereinafter referred to as the Receiving EU RO) shall first verify the details with the EU RO that has issued the certificate (hereinafter referred to as the Issuing EU RO) before completing the Certificate Non-Compliance (CNC) Form and sending it, by email, to the EU RO MR Secretariat as soon as possible after receipt of notification.

APPENDIX X

3. The EU RO MR Secretariat shall advise all EU ROs, by email, of the non-compliant situation as soon as possible after receipt. The EU RO MR Secretariat will keep a record of:
 - a. Date received by Secretariat;
 - b. Date referred to all EU ROs;
 - c. Date Certificate EU ROs advised of corrective action and/or new certificate.
4. All EU ROs shall advise their relevant internal stakeholders using their own internal communication processes as soon as possible after notification from the EU RO MR Secretariat.
5. The Issuing EU RO shall investigate the root cause of the non-compliant situation and advise EU RO MR Secretariat of any corrective actions taken and whether the certificate is re-issued or not.
6. The EU RO MR Secretariat shall advise all EU ROs when corrective action is taken by the Issuing EU RO and whether the certificate is successfully re-issued or not.

- End -

ANNEX 2

TECHNICAL REQUIREMENTS

TIER 1

Circuit Breakers	35
Contactors	42
Switches	48
Sensors	54
Display Monitors, Video Screens, Terminals	62
LV Transformers	72
Fuses	84
LV Enclosures and Boxes	91
Electric Driven Motors < 20 kw	98
Mechanical Joints	104
Resin Chocks	118

TIER 2

Accumulator Battery	125
Computers and Programmable Logic Controllers	137
Electrical / Electronic Relays	153
Flameproof Luminaire (Lighting Fixture)	159
Electric Cables - Heating Cables	180
Cable Ties	185
Air Pipe Automatic Closing Device	191
Expansion Joints	202
Class III Pipes Fittings ($DY \leq 500$ mm)	208
Plastic Piping Systems (Components)	215
Spark Arresters	231

TIER 3

Adjustable Steel Chock	231
Air Compressor	258
Battery Chargers	258
Boiler Remote Level Indicator	258
Cable Trays and Ducts (Metallic)	264
Cable Trays and Ducts (Glass Reinforced Plastic)	269
Connecting Systems for Cable Repair (Cable Splices)	276
Electrical Actuators for Valves	281
Insulation Panels for Provision Rooms and Chambers	305

Pneumatic Actuators for Valves	310
Solenoid Valve Assembly	315
Stationary Lighting Fixtures, Flood-light Projectors	328

TIER 4

Circuit Breakers with Electronic Devices	335
Contactors with Electronic Devices	342
Tachometer	348
Temperature Gauges and Transmitters	356
Thermal Insulation of Organic Foams for Piping	361
Valves for Bilge Systems	365
Valves for Freshwater Systems	372
Valves for Lubricating Oil & Hydraulic Oil Systems	378
Valves for Sanitary Systems	385
Valves for Seawater Systems	392

TIER 5

Control and Protective Switching Devices	399
Electronic Power Units for Valve Control.....	404
Electro-pneumatic Level Transmitters (EPLT).....	409
Flow Gauges/Transmitters.....	414
Level Gauges/Transmitters.....	419
Pilot Device	445
Pressure Gauges – Transmitters.....	450
LV Soft Starters	457
Valves for Fuel Oil Systems.....	462
Valves for Cargo Systems.....	468
AC Semiconductor Controllers.....	474

TIER 6

Anti-Acid Paints (Batteries' Storage Rooms)	480
Electrical Insulation Mats.....	486
Gaskets and Seals for Piping Systems.....	491
Non-Metallic Gratings.....	495
Touch Screen I.E. a Display Monitor or a Video Screen that is also an Input Device.....	502
Valves - Boiler Water Systems (Class III).....	507
Valves - Steam Systems (Class III Non Essential Systems).....	514

EU RO Mutual Recognition Technical Requirements

CIRCUIT BREAKERS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euomr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

1. PRODUCT DESCRIPTION	1
2. DESIGN EVALUATION	2
3. PRODUCTION REQUIREMENTS	4
4. MARKING REQUIREMENTS	4
5. TYPE APPROVAL CERTIFICATE CONTENT	5
6. APPROVAL DATE AND REVISION NUMBER	5
7. BACKGROUND INFORMATION / REFERENCES	5
8. MAINTENANCE / CLARIFICATION OF TECHNICAL REQUIREMENTS	7

1. PRODUCT DESCRIPTION

1.a General description of the product

Description of product according to IEC IEV 441-14-20:

Circuit breaker: A mechanical switching device, capable of making, carrying and breaking currents under normal circuit conditions and also making, carrying for a specified time and breaking currents under specified abnormal circuit conditions such as those of short circuit.

1.b Application limitations

- Restricted to LV air circuit-breakers (ACBs) and moulded-case circuit-breaker (MCCBs) according to IEC 60947-2 where the rated voltage does not exceed 1000V a.c. (50/60 Hz) or 1500 V d.c. and without electronic devices;
- Onboard ships with exceptions as per SOLAS Ch. I, Reg. 3;
- Installation on board ships within locations with climatic, biological, chemically active, mechanically active and mechanical environmental conditions not exceeding those for which performance has been proved according to IEC 60721-3-6 (1993) + A2 (1997).

1.c Intended use

- Power supply system characteristics as per IEC 60092-101; 2.8;

EU RO Mutual Recognition Technical Requirements

CIRCUIT BREAKERS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euomr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

- b) For equipment tested according to their respective environmental categories I-IV (see 7. Background information/ References);
- c) Circuit breaker shall have their energy for the tripping operation stored prior to the completion of the closing operation;
- d) Circuit breakers are to be of the trip-free type and be fitted with anti-pumping control;
- e) Circuit breakers are to be equipped with independent manual closing as per IEC 60947-2 Sub-clause 7.2.1.

1.d System context

See 1.c.

2. DESIGN EVALUATION

2.a Engineering evaluation requirements

2.a i. Technical Requirements

- a) Type, ratings and characteristics of circuit breakers for intended applications to be evaluated;
- b) In general, IEC 60947 series applies.

2.a.ii. Technical documents to be submitted

IMPORTANT: The English Language shall be used for all submitted documents.

Prior to tests:

- a) Proposed test program and test schedule;
- b) Description of the test specimens and explanation of the selected test sample(s) providing evidence that the selected sample meets the most rigorous and demanding requirements;
- c) Product descriptions, manuals, data sheets, assembly drawings, dimension drawings etc. clearly identifying the product;
- d) Complete accreditation certificate of the Test laboratory (prior the first test only; changes in the scope of accreditation must be informed);

EU RO Mutual Recognition Technical Requirements

CIRCUIT BREAKERS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

- e) Details of production sites;
- f) Product specification;
- g) Application, working area;
- h) Instructions on fitting, assembly and operation;
- i) QM-certificate according to ISO 9001.

After completion of tests:

- j) The test report with an identification number must contain all relevant data and test results including place and date of the tests, the names of the responsible personnel carrying out the test;
- k) Type references and serial numbers of the products tested;
- l) Test reports and test records must be signed by the personnel members in charge of the test and are to be confirmed by the EU RO. by signing and marking the test report.

2.b Type testing requirements

- a) Tests may be performed by accredited test laboratories;
- b) The test laboratory shall be accredited according to ISO 17025 for relevant IEC standards (incl. IEC 60947-2 sub-clause 8.2 and 8.3) by either a National Accreditation Body under the MLA regime of ILAC or one of the certification bodies under the LOVAG or IECEE Mutual Recognition Agreement. This applies to the Type Tests in compliance with the product standards;
- c) Test laboratory shall be authorized to conduct type tests in accordance with the relevant IEC standards;
- d) Special tests in accordance with IEC 60947-2 sub-clause 8.5 and IEC 60947-1 Annex Q Special tests – Damp heat, salt mist, vibration and shock; Category D;
- e) All tests shall be performed on the agreed test samples. Test specimens shall be selected from production line or at random from stocks†;
- f) Tests shall be carried out in the presence of the EU RO Surveyor. In cases where the tests are conducted at Nationally Accredited Laboratories, the presence of the EU RO surveyor may be omitted†;
- g) IEC 60947-2 Annex H, Test sequence for circuit-breakers for IT systems;

EU RO Mutual Recognition Technical Requirements

CIRCUIT BREAKERS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euomr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

† For further clarification of witnessing of tests and sampling the test specimen(s), refer to paragraphs 6, 7 and 8 of the EU RO "Design Evaluation Scheme" procedure (Appendix V of EU RO Framework Document for the Mutual Recognition of Type Approval found on <http://www.euomr.org/Guidance%20for%20Mutual%20Recognition>)

3. PRODUCTION REQUIREMENTS

3.a. General Requirements

Refer to EU RO "Product Quality Assurance (PQA)" procedure (Appendix VI of EU RO Framework Document for the Mutual Recognition of Type Approval).

3.b Special Requirements

- a) Routine test according to IEC 60947-2 sub-clause 8.4;
- b) Production certification according to ISO 9001 by accredited certification bodies;
- c) QM/QS audit (annual) shall submitted to the EU RO. for review;
- d) Production of the equipment is limited to those facility listed on the EU RO. certificate;
- e) Changes to the product will void the EU RO MR TAC;
- f) The EU RO shall be granted access to all manufacturing and testing facilities, and to be provided with all the information necessary to performance its duties;
- g) General terms and conditions of the EU RO shall be observed.

4. MARKING REQUIREMENTS

Marking as required by IEC 60947-2 (sub-clause 5.2).

EU RO Mutual Recognition Technical Requirements

CIRCUIT BREAKERS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euomr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

5. TYPE APPROVAL CERTIFICATE CONTENT

The EU RO MR Type Approval Certificate shall contain the minimum information as defined in the EU RO Framework Document for the Mutual Recognition of Type Approval - see Appendix I EU RO MR Type Approval Certificate Information.

The following information is specifically applicable to products relevant to this technical requirement and shall be included on the relevant EU RO MR Type Approval Certificate:

- Technical data according to IEC marking;
- Reference to approved technical documents;
- Application and limitations.

6. APPROVAL DATE AND REVISION NUMBER

Date	Revision	Comment
8 July 2012	0.0	Accepted by Advisory Board
19 Sept 2012	0.1	Errors corrected
31 January 2014	0.2	CRF001 incorporated improvements proposed by industry. Added reference to EU RO Framework Document for the Mutual Recognition of Type Approval).
31 January 2015	0.3	CRF017 – Amendments to 2.b Type testing requirements CRF018 – Revision to par. 2.a.ii - Technical documents to be submitted in English; CRF020 – Revision to par. 5 - 'Type Approval Certificate Content'
1 April 2016	0.4	CRF025 – Updated to new MR TR document format incl. par. 8; CRF026/026a – Witness testing & control of test specimen; CRF028 – addition of 6 month application clause.
1 October 2016	0.5	CRF034 – Test witnessing requirements aligned with TR Circuit Breakers (with electronic devices)

7. BACKGROUND INFORMATION / REFERENCES

- IEC 60092-101; 2.8;
- IEC 60721-3-6 (1993) + A2 (1997);
- IEC 60947;

EU RO Mutual Recognition Technical Requirements

CIRCUIT BREAKERS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

- d) IEC IEC 441-14-20;
- e) ISO 17025;
- f) ISO 9001;
- g) SOLAS Ch. 1, Reg. 3;
- h) EU RO Framework Document for the Mutual Recognition of Type Approval);
- i) Environment category (**Table 1**):

Table 1 - Environment Category

Environmental Category	Environmental Conditions						Test Conditions					
	Closed Area			Open Deck Area			Temperature		Climate			Vibrations
	Temperature	Relative Humidity	Vibrations	Temperature	Relative Humidity	Vibrations	Dry Heat	Cold	Temperature	Relative Humidity	Salt mist	
I	0 °C to 45 °C	up to 100 %	0,7 g				55 °C	5 °C	55 °C	95 %	–	0,7 g
II	0 °C to 45 °C	up to 100 %	4 g				55 °C	5 °C	55 °C	95 %	–	4 g
III	0 °C to 55 °C	up to 100 %	0,7 g				70 °C	5 °C	55 °C	95 %	–	0,7 g
IV	0 °C to 55 °C	up to 100 %	4 g				70 °C	5 °C	55 °C	95 %	–	4 g

EU RO Mutual Recognition Technical Requirements

CIRCUIT BREAKERS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euomr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

8. MAINTENANCE / CLARIFICATION OF TECHNICAL REQUIREMENTS

Anyone wishing to propose changes to this document or request clarification of technical issues should contact the EU RO MR Group Secretariat in the first instance: Secretariat@euomr.org.

Review and approval of change requests shall follow the EU RO MR Maintenance Process detailed in the EU RO Framework Document for the Mutual Recognition of Type Approval: <http://www.euomr.org/Guidance%20for%20Mutual%20Recognition>

- END -

EU RO Mutual Recognition Technical Requirements

CONTACTORS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

1. PRODUCT DESCRIPTION	1
2. DESIGN EVALUATION	2
3. PRODUCTION REQUIREMENTS	4
4. MARKING REQUIREMENTS	4
5. TYPE APPROVAL CERTIFICATE CONTENT	4
7. BACKGROUND INFORMATION / REFERENCES	5
8. MAINTENANCE & CLARIFICATION OF TECHNICAL REQUIREMENTS.....	6

1. PRODUCT DESCRIPTION

1.a General description of the product

The description of the product is used according to IEC IEV 441-14-33:

Contactor: a mechanical switching device having only one position of rest, operated otherwise than by hand, capable of making, carrying and breaking currents under normal circuit conditions including operating overload conditions.

1.b Application limitations

- Restricted to LV electromechanical contactors according IEC 60947-4-1 where the rated voltage does not exceed 1000V a.c. or 1500V d.c. and without electronic devices;
- Onboard ships with exceptions as per SOLAS Ch. I, Reg. 3;
- Installation on board ships within locations with climatic, biological, chemically active, mechanically active and mechanical environmental conditions not exceeding those for which performance has been proved according to IEC 60721-3-6 (1993) + A2 (1997).

1.c Intended use

- Power supply system characteristics as per IEC 60092-101; 2.8;
- For equipment tested according to their respective environmental categories I-IV (see 7. Background information/ References).

EU RO Mutual Recognition Technical Requirements

CONTACTORS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

1.d System context

See 1.c.

2. DESIGN EVALUATION

2.a Engineering evaluation requirements

2.a i. Technical Requirements

- Type, ratings and characteristics of contactors for intended applications to be evaluated;
- In general, IEC 60947 series.

2.a.ii. Technical documents to be submitted

IMPORTANT: The English Language shall be used for all submitted documents.

Prior to tests:

- Proposed test program and test schedule;
- Description of the test specimens and explanation of the selected test sample(s) providing evidence that the selected sample meets the most rigorous and demanding requirements.;
- Product descriptions, manuals, data sheets, assembly drawings, dimension drawings, etc. clearly identifying the product;
- Complete accreditation certificate of the Test laboratory (prior to the first test only; changes in the scope of accreditation must be informed);
- Details of production sites;
- Product specification;
- Application, working area;
- Instructions on fitting, assembly and operation;
- QM-certificate according to ISO 9001.

EU RO Mutual Recognition Technical Requirements

CONTACTORS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

After completion of tests:

- j) The test report with an identification number must contain all relevant data and test results including place and date of the tests, the names of the responsible personnel carrying out the test;
- k) Type references and serial numbers of the products tested;
- l) Test reports and test records must be signed by the personnel members in charge of the test and are to be confirmed by the EU RO by signing and marking the test report;
- m) The test laboratory shall be accredited according to ISO 17025 for relevant IEC standards, issued by one of the certification bodies under the LOVAG or IECEE Mutual Recognition Agreement. This applies to the Type Tests (including EMC) in compliance with the product standards.

2.b Type testing requirements

- a) All type tests according to IEC 60947-4-1 sub-clause 9.1.2 may be performed in test laboratories accredited by an Accreditation Body under the MLA regime of ILAC or by a laboratory recognised either by LOVAG or IECEE;
- b) The test laboratory shall be accredited according to ISO 17025 for relevant IEC standards, issued by one of the certification bodies under the LOVAG or IECEE Mutual Recognition Agreement. This applies to the Type Tests in compliance with the product standards;
- c) Test laboratory shall be authorized to conduct type tests in accordance with the relevant IEC standards;
- d) Special tests in accordance with IEC 60947-4-1 sub-clause 9.1.5.2 and IEC 60947-1 Annex Q, 'Special tests' – Damp heat, salt mist, vibration and shock; (Category D);
- e) All tests to be performed on the agreed test samples. Test specimens shall be selected from production line or at random from stocks†;
- f) Tests shall be carried out in the presence of the EU RO Surveyor. In cases where the tests are conducted at Nationally Accredited Laboratories, the presence of the EU RO surveyor may be omitted†;

† For further clarification of witnessing of tests and sampling the test specimen(s), refer to paragraphs 6, 7 and 8 of the EU RO "Design Evaluation Scheme" procedure (Appendix V of EU RO Framework Document for the Mutual Recognition of Type Approval found on <http://www.euromr.org/Guidance%20for%20Mutual%20Recognition>)

EU RO Mutual Recognition Technical Requirements

CONTACTORS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

3. PRODUCTION REQUIREMENTS

3.a. General Requirements

Refer to EU RO "Product Quality Assurance (PQA)" procedure (Appendix VI of EU RO Framework Document for the Mutual Recognition of Type Approval).

3.b. Special Requirements

- a) Routine test according to IEC 60947-4-1 sub-clause 9.1.3;
- b) Production certification according to ISO 9001 by accredited certification bodies;
- c) QM/QS audit (annual) shall be submitted to EU RO. for review;
- d) Production of the equipment is limited to those facility listed on EU RO. certificate;
- e) Changes to the product will void the EU RO MR TAC;
- f) The EU RO shall be granted access to all manufacturing and testing facilities, and to be provided with all the information necessary to performance its duties;
- g) General terms and conditions of EU RO shall be observed.

4. MARKING REQUIREMENTS

Marking as required by IEC 60947-4-1 (sub-clause 6.2)

5. TYPE APPROVAL CERTIFICATE CONTENT

The EU RO MR Type Approval Certificate shall contain the minimum information as defined in the EU RO Framework Document for the Mutual Recognition of Type Approval - see Appendix I EU RO MR Type Approval Certificate Information.

The following information is specifically applicable to products relevant to this technical requirement and shall be included on the relevant EU RO MR Type Approval Certificate:

- a) Technical data according to IEC marking.
- b) Reference to approved technical documents;
- c) Application and limitations.

EU RO Mutual Recognition Technical Requirements

CONTACTORS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

6. APPROVAL DATE AND REVISION NUMBER

Date	Revision	Comment
8 July 2012	0.0	Accepted by Advisory Board
19 Sept 2012	0.1	Errors corrected
31 January 2014	0.2	CRF001 Incorporated improvements proposed by industry. Reference to RO Framework Document for the Mutual Recognition of Type Approval added.
31 January 2015	0.3	CRF017 – Amendments to 2.b Type testing requirements CRF018 – Revision to par. 2.a.ii - Technical documents to be submitted in English; CRF020 – Revision to par. 5 - 'Type Approval Certificate Content'.
1 April 2016	0.4	CRF025 – Updated to new MR TR document format incl. par. 8; CRF026/026a – Witness testing & control of test specimen; CRF028 – addition of 6 month application clause.
1 October 2016	0.5	CRF033 – Test witnessing requirements aligned with TR Contactors (with electronic devices)

7. BACKGROUND INFORMATION / REFERENCES

- IEC 60092-101; 2.8;
- IEC 60721-3-6 (1993) + A2 (1997);
- IEC 60947;
- IEC IEV 441-14-33;
- ISO 17025;
- ISO 9001;
- SOLAS Ch. 1, Reg. 3;
- EU RO Framework Document for the Mutual Recognition of Type Approval);
- Environment category (**see table 1**):

EU RO Mutual Recognition Technical Requirements

CONTACTORS (WITHOUT ELECTRONIC DEVICES)	Version	0.5
	Adoption Date	1 April 2017
	Application Date	1 October 2017
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

Table 1 - Environment category

Environmental Category	Environmental Conditions						Test Conditions					
	Closed Area			Open Deck Area			Temperature		Climate			Vibrations
	Temperature	Relative Humidity	Vibrations	Temperature	Relative Humidity	Vibrations	Dry Heat	Cold	Temperature	Relative Humidity	Salt mist	
I	0°C to 45°C	up to 100%	0,7g				55°C	5°C	55°C	95%	–	0,7g
II	0°C to 45°C	up to 100%	4g				55°C	5°C	55°C	95%	–	4g
III	0°C to 55°C	up to 100%	0,7g				70°C	5°C	55°C	95%	–	0,7g
IV	0°C to 55°C	up to 100%	4g				70°C	5°C	55°C	95%	–	4g

8. MAINTENANCE & CLARIFICATION OF TECHNICAL REQUIREMENTS

Anyone wishing to propose changes to this document or request clarification of technical issues should contact the EU RO MR Group Secretariat in the first instance: Secretariat@euromr.org.

Review and approval of change requests shall follow the EU RO MR Maintenance Process detailed in the EU RO Framework Document for the Mutual Recognition of Type Approval: <http://www.euromr.org/Guidance%20for%20Mutual%20Recognition>

- END -

EU RO Mutual Recognition Technical Requirements

SWITCHES	Version	0.4
	Adoption Date	1 April 2016
	Application Date	1 October 2016
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

1. PRODUCT DESCRIPTION	1
2. DESIGN EVALUATION	2
3. PRODUCTION REQUIREMENTS	4
4. MARKING REQUIREMENTS	4
5. TYPE APPROVAL CERTIFICATE CONTENT	5
6. APPROVAL DATE AND REVISION NUMBER	5
7. BACKGROUND INFORMATION / REFERENCES	5
8. MAINTENANCE & CLARIFICATION OF TECHNICAL REQUIREMENTS	6

1. PRODUCT DESCRIPTION

1.a General description of the product

Description of product according to IEC IEV 441-14-10:

Switch (mechanical): is a mechanical switching device capable of making, carrying and breaking currents under normal circuit conditions which may include specified operating overload conditions and also carrying for a specified time currents under specified abnormal circuit conditions such as those of short circuit.

Note: a switch may be capable of making but not breaking short circuit currents.

1.b Application limitations

- Restricted to LV mechanical switches according IEC 60947-3 where the rated voltage does not exceed 1000 V a.c. or 1500 V d.c. and without electronic devices;
- Onboard ships with exceptions as per SOLAS Ch. I, Reg. 3;
- Installation on board ships within locations with climatic, biological, chemically active, mechanically active and mechanical environmental conditions not exceeding those for which performance has been proved according to IEC 60721-3-6 (1993) + A2 (1997).

EU RO Mutual Recognition Technical Requirements

SWITCHES	Version	0.4
	Adoption Date	1 April 2016
	Application Date	1 October 2016
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

1.c Intended use

- a) Power supply system characteristics as per IEC 60092-101; 2.8.;
- b) Environment category 6K4, 6B2, 6C2, 6S2 and 6M3 according to IEC 60721-3-6 (1993) + A2 (1997).

1.d System context

See 1.c.

2. DESIGN EVALUATION

2.a Engineering evaluation requirements

2.a i. Technical Requirements

- a) Type, ratings and characteristics of switches for intended applications shall be evaluated;
- b) In general, IEC 60947 series shall be observed.

2.a.ii. Technical documents to be submitted

IMPORTANT: The English Language shall be used for all submitted documents.

Prior to tests:

- a) Proposed test program and test schedule;
- b) Description of the test specimens and explanation of the selected test sample(s) providing evidence that the selected sample meets the most rigorous and demanding requirements;
- c) Product descriptions, manuals, data sheets, assembly drawings, dimension drawings, etc. clearly identifying the product.;
- d) Complete accreditation certificate of the Test Laboratory;
- e) Details of production sites;
- f) Product specification;
- g) Application, working area;
- h) Instructions on fitting, assembly and operation;
- i) QM-certificate according to ISO 9001.

EU RO Mutual Recognition Technical Requirements

SWITCHES	Version	0.4
	Adoption Date	1 April 2016
	Application Date	1 October 2016
	Tier	1
This document is subject to controlled issue and can be found here: http://www.euromr.org/technical-requirements *** Uncontrolled if downloaded or printed ***		

After completion of tests:

- j) The test report with an identification number shall contain all relevant data and test results including place and date of the tests, the names of the responsible personnel carrying out the test;
- k) Type references and serial numbers of the products tested;
- l) Test reports and test records must be signed by the personnel members in charge of the test and are to be confirmed by the EU RO by signing and marking the test report;
- m) Certificate of conformity to IEC Standards issued by one of the Certification Body under the ILAC or LOVAG or IECEE mutual recognition agreement.

2.b Type testing requirements

- a) All type tests according to IEC 60947-3 sub-clause 8.2 and 8.3 to be performed in accredited test laboratories recognized either by ILAC or LOVAG or IECEE. In cases where the tests are conducted at Nationally Accredited Laboratories, the presence of the EU RO surveyor may be omitted†.
- b) Test laboratory shall be authorised to conduct type tests according to the relevant IEC standards;
- c) Test specimens shall be taken from the production line or from stocks†.
- d) Special test according to IEC 60947-3 clause 8 and IEC 60947-1 Annex Q Special tests –Damp heat, salt mist, vibration and shock; (Category D).All tests to be performed on the agreed test samples;

† For further clarification of witnessing of tests and sampling the test specimen(s), refer to paragraphs 6, 7 and 8 of the EU RO "Design Evaluation Scheme" procedure (Appendix V of EU RO Framework Document for the Mutual Recognition of Type Approval found on

<http://www.euromr.org/Guidance%20for%20Mutual%20Recognition>).