

**RULES
FOR THE CLASSIFICATION OF
SHIPS**

*Part 13 – AUTOMATION
January 2020*

*Amendments No. 1
January 2025*

CROATIAN REGISTER OF SHIPPING

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By the decision of the General Committee of Croatian Register of Shipping,

Amendments No. 1 to the
RULES FOR THE CLASSIFICATION OF SHIPS
Part 13 – AUTOMATION

have been adopted on 20th December 2024 and shall enter into force on 1st January 2025

GENERAL TERMS AND CONDITIONS

(March 2022)

Article 1 GENERAL

1.1 CROATIAN REGISTER OF SHIPPING (hereinafter: the *Register*) shall at all times remain an independent contractor and neither the *Register* nor any of its officers, surveyors, auditors, inspectors, agents, appointers, officers or managers shall act as an employee, servant or agent of any other party in the performance of the Services rendered by the *Register*.

1.2 The *Register* acts as a service provider. The Services provided by the *Register* cannot be construed as a commitment by the *Register* to achieve any result or as a warranty.

1.3 The provision of Services is subject to these General Terms and Conditions. No other terms and conditions shall apply, either expressly or by implication, unless expressly agreed in writing between the Parties.

1.4 These General Terms and Conditions shall be incorporated into, or referred to in any Contract and shall prevail over and exclude any other terms and conditions that the Client may wish to impose.

Any amendments to and/or deviations from these General Terms and Conditions, as well as any additional terms and conditions of the Client, shall be binding or valid only if set forth in writing and duly signed by the authorised representatives of both Parties.

1.5 The invalidity of one or more provisions of these General Terms and Conditions shall not affect the remaining provisions.

1.6 The Client acknowledges that the latest version of these General terms and Conditions and the latest version of applicable Rules apply to the Services provided by the *Register*.

1.7 Definitions in these General Terms and Conditions take precedence over other definitions that may appear in other documents issued by the *Register*.

1.8 The Client should at all times be aware of the provisions of these General Terms and Conditions, as they may be further amended, with their latest up to date version available on the web site of the *Register*.

Article 2 DEFINITIONS

2.1 **Certificate** means either a class certificate or statutory certificate, statement, attestation, statement of compliance, and a report following the Services provided by the *Register*.

2.2 **Certification** means the activity of certification in application of international and national standards and international industry practice provided by the *Register*.

Certification is an appraisal given by the *Register* to the Client and cannot be construed as an implied or express warranty of safety, fitness for purpose, seaworthiness of the vessel or its value for sale, insurance or chartering.

The purpose of Certification is to provide classification and statutory services and assistance to the maritime industry, Flag State Administrations, and regulatory authorities relating to maritime safety and pollution prevention.

2.3 **Classification** includes all activities and Services provided by the *Register* in accordance with the Rules. Classification may or may not be accompanied by the issuance of a Certificate of class with reference to the Rules.

Certificate of class is valid only if issued by the *Register*.

However, Certificate of class should not be construed as a guarantee of the safety, fitness for purpose or seaworthiness of the vessel. It is merely an attestation that the vessel complies with the Rules developed and published by the *Register*.

In addition, the *Register* is not a guarantee of the safety of life or property at sea or the seaworthiness of a vessel because, although the classification of a vessel is based on the assumption that the vessel will be properly loaded, operated, and maintained by competent and qualified personnel, the *Register* has no control over how a vessel is operated and maintained between the periodic surveys it conducts.

2.4 **Statutory certification** means certification made by the *Register* on behalf of the Flag State Administrations when and to the extent that the *Register* has been authorised to do so by the respective Flag State.

Statutory certification and services include the assessment of vessels registered by the Flag State and/or ship management companies to determine whether such ships/companies comply with the applicable requirements of international conventions, codes and national legislation, and the issuance of, or assistance in the issuance of, the appropriate certificates and documents.

Statutory certification includes, but is not limited to, certification, survey, and issuance of statutory certificates on behalf of the Flag State.

In cases where the *Register* acts on behalf of Flag State Administrations, the *Register* shall follow guidance issued by IMO (Resolutions, Circulars, etc.) or by IACS through Unified Interpretations (UI), unless otherwise directed by the Flag State.

2.5 **Client** means the shipowner, company, shipyard and/or party requesting Services or taking ownership of a classed vessel. In cases where shipowners have authorized another party to operate the vessel on their behalf, that party shall be considered as the company.

In addition to the above the Client means the person and/or entity that has requested Services from the *Register* and that has entered into a Contract or an agreement for Services with the *Register*.

2.6 **Parties** means the *Register* and Client together.

2.7 **Party** means the *Register* or the Client.

2.8 **Contract** means the contract in the form of a written agreement between the Client and the *Register* requesting Services, including these General Terms and Conditions and the Rules.

The provisions related to the Contract in these General Terms and Conditions shall apply even if there is no written agreement between the Client and the *Register*.

The Client may request the *Register* in writing to make a change to the contracted Services. However, the *Register* shall not be obligated to accept or execute any such change until a written agreement has been signed with the Client regarding the compensation and the possible impact of the change on the schedule as an addendum to the originally contracted Services.

2.9 **Services** shall mean the services specified in 2.2, 2.3 and 2.4, but also other services related to certification, classification and statutory certification, such as, but not limited to: ISM Code certification, ISPS Code, MLC 2006 certification, fuel oil consumption reporting, IHM certification, approval of manufacturers and service providers, certification of materials and products, training activities, conformity assessment, and any other relevant activities such as third party inspections, testing, shore and shipboard trials.

The Services provided by the *Register* are performed on a random basis and in no case include a full inspection of all items.

The *Register* shall provide the Services in accordance with related Contract(s), the provisions of these General Terms and Conditions, Rules, the international and national standards, the international conventions, the EU Regulations, the Flag State requirements and the industry practices applicable to the particular Service and always assuming that the Client is aware of these standards and the industry practices.

When providing Services, the *Register* does not guarantee the accuracy of the information or advice provided.

In providing Services, the *Register* does not assess compliance with standards other than the Rules, international and national standards, international conventions, EU regulations, Flag State requirements and industry practice, to the extent agreed in writing or specified in the Contract.

2.10 The *Register* means the Croatian Register of Shipping, an entity organized and existing under Croatian law, which, according to the Law on the Croatian Register of Shipping (Official Gazette No. 1996/81, 2013/76 and 2020/62) and the Charter of the *Register*, is an independent, not-for-profit, but public welfare oriented, public foundation that performs tasks:

- classification of sea-going ships,
- statutory certification of sea-going ships on behalf of the Flag State Administrations,
- classification of inland navigation vessels,
- statutory certification of inland navigation vessels,
- statutory certification of recreational crafts,
- certification of materials and products,
- conformity assessment of recreational crafts,
- conformity assessment of marine equipment,
- conformity assessment of pressure vessels,
- certification/registration of quality management systems.

2.11 **Vessel** means a ship, vessel, unit or offshore structure of any kind, whether or not connected to the shore or sea/river bed, located at sea or in inland waters and intended for transportation or special operations on the water, as decided by the *Register*.

2.12 **Rules** means the Rules for the classification, guidelines, instructions, or other documented evidence of the *Register* related to the Services provided.

The competent interpretation of the requirements specified in the Rules or other regulations published by the *Register* shall be the exclusive responsibility of the *Register's* Head Office, notwithstanding any possible different interpretations by other parties.

In cases where the Rules do not contain detailed requirements, the specific approval by the *Register* shall be based on the principles of the Rules and shall ensure a safety standard equivalent to that of the Rules.

Article 3 RESPONSIBILITIES

3.1 It is the Client's responsibility to ensure that all surveys required for vessel's class maintenance are conducted in a timely manner and in accordance with the Rules.

3.2 The *Register* may suspend or withdraw the vessel's existing Certificate of class in the event of serious deficiencies and replace it with a new Certificate of class with a shortened period of validity during which the deficiencies are to be rectified.

In addition, the *Register* shall suspend or withdraw a vessel's Certificate of class if the deficiencies are of such a magnitude as to endanger the class of the vessel, its safety and integrity, the safety of the crew, passengers, or the marine environment, and shall require that the vessel is to be inspected at the first port of call where the necessary repairs are to be carried out.

3.3 The Client should inform the *Register*:

- (i) in the event of a change in the intended use of a vessel, a conversion and alteration of the hull, machinery installations and other equipment affecting the Class of the vessel assigned by the *Register*. Conversions and alterations must be made under the supervision of the *Register* and must comply with the requirements of the Rules and/or additional requirements of the *Register*,
- (ii) in cases where the vessel has been damaged to such an extent that the Class of the vessel is likely to be affected and the safety and integrity of the vessel is likely to be compromised. In such cases, the vessel must be surveyed at the first port of call or as further directed by the *Register*. The survey shall be to the extent deemed necessary by the *Register*, by taking into account the extent of the damage.
- (iii) in cases where class-related deficiencies and/or defects are found as a result of a Flag State inspection or Port State Control. Should the Client fail to notify the *Register* of the detention of the vessel by Port State Authorities due to class related deficiencies, the *Register* reserves the right to suspend or withdraw the Certificate of class.

3.4 The *Register* shall have full control over Certificates issued and may suspend or withdraw a Certificate at any time in its sole discretion if the Client fails to comply with the following requirements set forth in the *Rules for the Classification of Ships, Part 1 - General Requirements, Chapter 1 - General Information*, as applicable:

- (i) para. 5.3 - *Maintenance of the validity of Certificate of Class*,
- (ii) para. 5.4 - *Period of Validity*,
- (iii) para. 5.5 - *Extension of the Period of Validity*,
- (iv) para. 5.6 - *Suspension and Reinstatement of Class in the Case of Overdue Surveys*, and
- (v) para. 5.7 - *Withdrawal of Class*.

3.5 The *Register* may suspend or withdraw a Certificate at any time in its sole discretion if the Client fails to comply with the following requirements set forth in the *Rules for the Classification of Inland Navigation Vessels, Part 1 - Classification and Surveys, Chapter I - Principles of Classification*, as applicable:

- (i) para. 2.8 - *Maintenance of the Validity of the Certificate of Class*,
 - (ii) para. 2.9 - *Extension of validity of the Certificate of Class*,
- and following requirements set forth in the *Rules for the Classification of Inland Navigation Vessels, Part 1 - Classification and Surveys, Chapter II - Classification*, as applicable:

- (iii) para. 2.1 - *Suspension of Class*,
- (iv) para. 2.2 - *Withdrawal of Class*.

3.6 In addition to clauses 3.2, 3.4 and 3.5 of this Article, the *Register* reserves the right to terminate the Services and related Contract in the event of a breach of the provisions of these General Terms and Conditions.

3.7 If the Client fails to provide the *Register* with the required access or information at the agreed times or fails to prepare for the Service in a timely manner, the *Register* may suspend the provision of the Service until it receives the Client's instructions for access and/or the required information.

The *Register* shall not be liable for the consequences of such suspension, and the Client shall be responsible for the *Register's* additional fees and other unnecessary costs and expenses incurred by the *Register*.

3.8 The Client is obliged to perform timely payments of the invoices for provided Services. However, the *Register* may retain or withhold any Service or Certificate to the Client in the case of outstanding payments, whether mutually related or not, arising out of the entire business relationship with the Client.

Article 4 HEALTH, SAFETY AND ENVIRONMENT

4.1 Both the *Register* and the Client shall apply reasonable standards to promote safety, health, and environmental protection and to provide a safe working environment for their personnel.

4.2 The Client shall provide the *Register* with all access and information necessary for the safe and efficient performance of the requested Services as required by the Rules.

4.3 During the survey, personnel of the *Register* should have secure access to all work that directly or indirectly affects the Service.

4.4 The *Register* has the right to refuse to conduct an activity or visit an area or site if the *Register* in its sole discretion, believes that relevant risks are unacceptable or are not adequately addressed, contained, or otherwise mitigated.

Such a decision shall suspend the obligations of both Parties under the Contract without incurring any liability or penalty until the Parties agree on how to proceed.

Article 5 THIRD PARTIES AND SUBCONTRACTORS

5.1 Each specific Contract, including any Certificates issued, relates specifically to the Client, and no rights, obligations, interests, claims, benefits or Certificates issued shall extend to any third party without the prior written consent of the *Register*.

5.2 The Client shall not be entitled to grant any right to use the Certificates to any third party without the prior written consent of the *Register*.

5.3 The Client shall not without *Register's* consent, cede, assign, transfer, subcontract or deal in any manner with all or any of its rights or obligations under any Service and related Contract.

5.4 With regard to third party rights to access information and Certificates under confidentiality clause reference is to be made to Article 9.

Article 6 TAXES

6.1 Each Party shall be responsible for and shall bear all taxes, duties or similar governmental charges levied or imposed on any activity of that Party.

6.2 Prices, fees, rates, or remuneration are exclusive of any form of sales tax, value added tax, administrative fees and services tax and/or other similar taxes, including any surcharges. If any such indirect tax is or becomes applicable to the Services provided under the Contract, the Client shall be responsible for the payment of such indirect taxes.

Article 7 PAYMENT OF INVOICES

7.1 The provision of Services by the *Register*, whether complete or not, shall include payment of fees thirty (30) days after issuance of the invoice for the portion of the Services performed.

7.2 In the event that the Client fails to meet the requirements for payment in accordance with the instalments and terms of payment contained herein, the *Register* reserves the right to charge the Client with the interest rate in accordance with the applicable laws of the Republic of Croatia.

7.3 If the Client disputes an invoice or part of an invoice, the Client shall notify *Register* thereof in writing without undue delay. If no notification is received by the due date, Client shall be deemed to have accepted the invoice in full. If only part of an invoice is disputed, the undisputed amount must be paid by the due date.

Consequently, no disputes arising between the *Register* and the Client shall interfere with prompt payment of invoices by the Client. Any rights of lien or retention in favour of the Client or otherwise, are hereby excluded.

7.4 In the event of cancellation of all or part of the Services prior to their final completion, the Client shall pay all costs incurred by the *Register* on pro-rata basis for the portion of the Services provided to date. In such event, the *Register* will not claim the Client for loss of profit or reduced income. All reasonable costs directly attributable to the early termination and all amounts due to the *Register* at that time shall become immediately due and payable.

7.5 In the event of termination of the Service and related Contract, the *Register* shall be entitled to retain any payments, deposits or prepayments of fees made by the Client prior to the date of termination up to the amount to which the *Register* is entitled.

Article 8 TERMINATION

8.1 The Parties shall have the right to terminate the Services and the related Contract(s) by written notice to the other Party, and without prejudice to Article 7, in the following cases:

- (i) if the other Party commits a material breach of these General Terms and Conditions and/or the Contract and fails to rectify such breach in accordance with clause 8.4 of this Article,
- (ii) if the other Party becomes insolvent, is unable to pay its debts as they become due, or becomes subject to bankruptcy proceedings, administration, receivership, dissolution, liquidation, winding up or otherwise ceases to carry on its business; or
- (iii) for convenience, after giving the other Party thirty (30) days' prior written notice of termination.

8.2 The Classification issued for the relevant vessel and the Certificates previously issued shall remain valid until the effective date of termination or, in the event of such termination, immediately, subject to compliance with Article 3 and Article 7.

8.3 If, in the reasonable opinion of the *Register*, the Client breaches or is suspected of breaching Article 14 or Article 15, the *Register* shall have the right to terminate the Service and related Contract with immediate effect.

8.4 Notwithstanding the provisions of clause 8.1 of this Article, the Party intending to terminate Services for non-compliance or breach of the provisions of these General Terms and Conditions shall notify the other Party of the non-compliance or violation of the provisions of these General Terms and Conditions and set a reasonable deadline of 15 (fifteen) days for the other Party to remedy the breaches of the provisions of these General Terms and Conditions.

If the Party fails to remedy the breaches of the provisions of these General Terms and Conditions within the aforementioned period, the other Party shall have the right to terminate Services without further notice.

8.5 Termination of the Service and related Contract pursuant to the provisions of these General Terms and Conditions shall not give either Party the right to claim any additional compensation, indemnity or reimbursement from the other Party as a result of such termination, but such termination shall not affect any rights or remedies available to a Party at the time the termination becomes effective or any obligations or liabilities incurred by a Party.

Article 9 CONFIDENTIALITY

9.1 The Parties agree to keep confidential all facts, data, information, etc. related to the other Party's business that they have learned in the course of providing Services. Such information and data shall not be disclosed by the Parties to any third party and shall not be used or misused to the detriment of the other Party.

9.2 The *Register* will keep confidential any data, plans or other technical information received from the Client and will not disclose it to any third party outside the *Register*, unless authorised by the Client. This obligation shall continue to apply after termination of the Services. This obligation shall not apply to any data, plans or other technical information that was in the possession of the *Register* prior to being disclosed to the *Register* by or on behalf of the Client, or that becomes publicly available through no fault of the *Register*, or is otherwise provided to the *Register* by an independent source that is under no obligation of confidentiality to the *Register*.

9.3 Certificates issued by the *Register* to the Client as a result of the Services provided shall not be covered by the confidentiality Article.

Notwithstanding the foregoing, the Client shall be entitled to disclose any data to its affiliates involved in the transactions related to the Services or the Client's core activities.

9.4 Notwithstanding clause 9.1 and clause 9.2 of this Article, the *Register* shall have the right to disclose the Confidential Information to the following parties if required by regulations of:

- (i) authorised representatives of the Flag State Administration,
- (ii) authorised audit teams (i.e., accreditation body or EC auditors),
- (iii) the International Association of Classification Societies (IACS),
- (iv) a court of competent jurisdiction, government agency, or other relevant public authority, in accordance with applicable law, court order, or other public regulation.

9.5 The Client acknowledges that the *Register* is required to provide access to information to the EU Commission or any person acting on its behalf in accordance with applicable EU requirements and that the Client shall give the EU Commission with unrestricted access to the vessels for the purpose of inspection.

9.6 The obligations in this Article shall survive the conclusion of the Service or the termination of related Contract and shall continue for as long as the relevant information remains confidential.

Article 10 INTELLECTUAL PROPERTY

10.1 Each Party shall be the sole owner of all rights to its Intellectual Property created before or after the effective date of these General Terms and Conditions, whether or not associated with any Contract between the Parties.

10.2 The Intellectual Property developed by the *Register* for the provision of the Services, including but not limited to drawings, calculations and reports, shall remain the exclusive property of the *Register*.

Article 11 PROFESSIONAL ETHICS

11.1 Each of the Parties warrants that, with respect to the matters contemplated herein, neither it nor its affiliates has made or will make, directly or indirectly, any offer, payment, gift or authorization of money to any government official or employee, political party, public official or candidate for the benefit or advantage thereof.

11.2 In providing the Services, the *Register* shall strictly adhere to the requirements of its Code of Ethics relating to business activities.

Article 12 FORCE MAJEURE

12.1 For the purposes of these General Terms and Conditions, the term "Force Majeure" includes any event that directly or indirectly prevents the Parties from fulfilling their obligations due to events beyond their control, such as: strikes, wars, riots, piracy, civil commotion, malicious damage, pandemic, compliance with laws or government orders, rules, regulations or directives, sanctions and embargoes, accidents, defects of plants or machinery, seizures, fires, floods, storms and the like.

12.2 If either Party is prevented or delayed from performing its obligations by Force Majeure, such Party shall promptly notify the other Party in writing of the circumstances of the Force Majeure and its influence and, after such notification, shall not be liable for performance of any obligations prevented by the influence of the Force Majeure during its duration. Upon termination of the influence of the Force Majeure, the same Party should proceed with the planned activities in order to fulfil its obligations.

12.3 If one of the Parties is prevented by Force Majeure in its activities and fulfilment of its obligations and this event lasts continuously for three (3) months, the other Party shall be entitled to terminate the Service and related Contract without liability.

12.4 Neither of the Parties shall be liable for non-compliance with these General Terms and Conditions due to Force Majeure. If one of the Parties is prevented from fulfilling its obligations under these General Terms and Conditions due to Force Majeure, it shall immediately notify the other Party in writing within a reasonable period of time, stating the reasons for the Force Majeure and providing relevant evidence, if any.

Article 13 INDEMNIFICATIONS

13.1 Each Party shall indemnify the other Party against all claims arising out of the performance of the Services in respect of bodily injury, illness or death of any of its employees or other representatives and in respect of loss of or damage to the Party's property.

This provision shall apply whether or not the damage is caused or contributed to by the negligence of the other Party. Both Parties are obliged to take out separate insurances for these liabilities.

13.2 The Client shall indemnify the *Register* from and against all claims arising from the Client's violation of the provisions of these General Terms and Conditions and from the misuse of the Certificates issued by the *Register*.

13.3 The Client shall indemnify the *Register* against any financial responsibility or amounts arising from non-payment, late payment or payment of withholding taxes to the non-relevant tax authority or any other relevant governmental body.

13.4 Each Party shall notify the other Party without undue delay as soon as it becomes aware of any incident that could give rise to a claim against the other Party in respect of the Service provided and related Contract.

Article 14 ANTI-CORRUPTION

14.1 Each Party agrees that in performing its obligations under any Service, it will ensure that its affiliates, employees and/or agents, subsidiaries, subcontractors, consultants, and any other persons providing Services will:

- (i) comply with all applicable anti-bribery and anti-corruption laws (collectively, Anti-Bribery Laws) and, in particular, do not, directly or indirectly, offer, promise, grant, authorise the payment of, or confer any financial or other benefit on any public or government official:
 - to a public or governmental official to obtain or retain business with the intent to influence such official in his or her capacity as an official, if such official is not permitted or required by written law to be influenced by the offer, promise or gift; or
 - to another person with the intent to induce or reward the improper performance of a function or activity or for any other illegal purpose,
- (ii) maintain adequate systems and procedures designed to prevent activities, practises, or conduct in connection with services that would constitute an offence under an anticorruption law; and
- (iii) take reasonable steps to prevent similar acts by customers, contractors, subcontractors, agents and other third parties, persons under its control or influence.

14.2 Any failure by a Party to comply with or ensure compliance with its obligations under this Article shall, notwithstanding anything to the contrary in these General Terms and Conditions, be deemed a breach of these General Terms and Conditions which shall entitle the other Party to suspend and/or terminate the Services by notice in writing with immediate effect without further liability to the other Party except for any liability which may have arisen prior to the date of termination or suspension (as the case may be).

14.3 If a Party elects to suspend the provision of Services under these General Terms and Conditions pursuant to this Article, it shall have the sole and absolute discretion to determine:

- (i) when it will resume performance (if at all); and
- (ii) extend the period for performance of its obligations under the Services in its sole discretion.

Article 15 SANCTIONS

15.1 Each Party shall conduct all activities in compliance with all laws, statutes, rules, economic and trade sanctions (including, but not limited to, U.S. sanctions and EU sanctions) 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, copyright and trademark protection, personal data protection.

15.2 Each Party hereby represents and warrants that it is not or will not be subject to any economic or trade sanctions ("Sanctions") imposed by the United States of America, the European Union, the United Kingdom, any EU Member State, or the United Nations with respect to any country and/or by any sanction giver with respect to any company/individual.

15.3 Each Party represents and warrants that it will strictly comply with all Sanctions.

15.4 Nothing in these General Terms and Conditions shall be construed as causing or obligating either Party to act or refrain from acting in a manner inconsistent with, punishable by, or prohibited by any Sanctions.

15.5 Neither Party shall be obligated to perform any obligation arising under these Terms and Conditions (including, without limitation, the obligation to):

- (i) perform, deliver, accept, sell, purchase, pay or receive any funds to, from or through any person or entity; or
- (ii) engage in any other action whatsoever, if doing so violates or is inconsistent with sanctions and/or recommendations of international (intergovernmental) organisations to combat the financing of terrorism and other criminal activities and/or money laundering or exposes such Party to investigation or penalties.

15.6 In the event that a Party breaches any Sanctions or the Party's Business and/or Transactions arising out of or in connection with these General Terms and Conditions breach any Sanctions or otherwise violate the recommendations of one or more international (intergovernmental) organisations for combating the financing of terrorism and other criminal activities and/or money laundering, the other Party shall be entitled to terminate these General Terms and Conditions by written notice with immediate effect without incurring any liability to the other Party, except for liabilities (if any) incurred prior to the date of termination.

Article 16 LIABILITY

16.1 The *Register* is not, and cannot be considered as, an underwriter, consulting engineer, naval architect, shipbuilder, shipowner, or ship management company, nor can it assume the obligations and responsibilities associated with such functions, although the *Register's* experience may enable it to respond to inquiries about matters not covered by its Rules, policies, instructions, or other documented evidence.

16.2 The practices and procedures of the *Register* shall be selected by the *Register* in its sole and absolute discretion based on its experience and knowledge and in accordance with generally accepted professional standards in the relevant field of classification societies.

16.3 Nothing herein contained shall release any designer, naval architect or engineer, shipbuilder or manufacturer, shipyard, vendor, supplier, contractor or subcontractor, repairer or owner, from any information, report, certificate or similar document issued in connection with the provision of Services by the *Register*, operator, manager or other person or entity from any express or implied warranty or other contractual obligation or responsibility, or from any negligent act, error or omission of any kind whatsoever, nor shall they create any right, claim or benefit for any third party.

16.4 The *Register* shall exercise due care in the selection or appointment of its surveyors and all other employees whose presence and work is necessary for the provision of the Services.

16.5 If any person or entity using the Services of the *Register* suffers any loss, damage or expense that is or is shown to have been caused by a negligent act, omission or error of the *Register's* officers, surveyors, auditors, inspectors, agents, appointers, officers or managers, or those purporting to act in the name of and on behalf of the *Register*, or a negligent inaccuracy, advice, report or evidence given by or in the name of or/and on behalf of the *Register*, then the liability of the *Register* is limited in respect of any direct or indirect claim shall be limited to an amount not exceeding five times the fee charged or to be charged by the *Register* for the relevant Service.

16.6 Any liability for consequential damages is expressly excluded.

For purposes of this clause, consequential damages include, without limitation:

- (i) indirect or consequential damages,

- (ii) loss and/or delay of production, loss of products, loss of use, loss of bargain, loss of revenue, loss of profit or anticipated profit, loss of business and business interruption, in each case directly or indirectly.

16.7 The Parties are not entitled to assign the performance of obligations under these General Terms and Conditions or parts thereof to third parties without the prior written consent of the other Party.

16.8 If during the term of the Contract, there is a transfer of function due to change of status (merger, acquisition, division, etc.), all obligations and rights under these General Terms and Conditions and associated Contract will be transferred to the legal successor of the Party concerned.

Article 17 GOVERNING LAW AND RESOLVING OF DISPUTES

17.1 These General Terms and Conditions and any dispute or claim between the Parties arising from or in connection with it, or the Services provided hereunder, will be governed and interpreted in accordance with the English law.

17.2 The Parties shall use their reasonable efforts to resolve any claim or dispute arising in relation to rendered Service by negotiations within a reasonable time.

17.3 Should the Parties fail to resolve any claim or dispute by negotiations, the dispute shall be exclusively subject to the jurisdiction of the Permanent Arbitration Court with the Croatian Chamber of Economy in Zagreb, Republic of Croatia.

17.4 The Parties agree to keep the any arbitration proceedings confidential.

17.5 Notwithstanding the above, any claim not presented within three (3) months of the completion of the particular Services, or within three (3) months of from the date when the events which are relied on were first discovered by the Client, shall be deemed waived and absolutely time barred.

17.6 Any objections against the line adopted by any of the *Register's* servants in fulfilling their duties or against the conclusions reached are to be raised to the *Register* by the Party as soon as possible.

If the Party is not satisfied with the final conclusions and interpretations by the *Register* the arbitration lays upon the Commission for appeal for Classification and Statutory certification of ships, which is to be formed according to the Regulation 39 of the Charter of the *Register*.

INTRODUCTORY NOTES

These amendments shall be read together with the requirements in the Rules for the Classification of Ships, Part 13 – Automation, edition January 2020.

Table 1 contains review of amendments, where items changed or added in relating to previous edition are given, with short description of each modification or addition. All major changes throughout the text are shaded.

This Part of the Rules includes the requirements of the following international Organisations:

International Maritime Organization (IMO)

Conventions:

International Convention for the Safety of Life at Sea, 1974 (SOLAS 74) and all subsequent and applicable amendments adopted up to MSC 108 Protocol of 1988 relating to the International Convention for the Safety of Life at Sea, 1974, as amended (SOLAS PROT 1988)

International Association of Classification Societies (IACS)

Unified Requirements (UR):

M29 (Rev. 3, 1997), M30 (Rev. 1, 1997), M35 (Rev.8, Jan. 2019),
M36 (Rev.6, Dec. 2018), M43 (Rev.1, Feb 2024)

TABLE 1 – REVIEW OF AMENDMENTS

This review comprises amendments in relation to the Rules for the Classification of Ships, Part 13 – Automation, edition January 2020.

<i>ITEM</i>	<i>DESCRIPTION OF THE AMENDMENTS</i>
SECTION 2 CONTROL AND MONITORING SYSTEMS	
Head 2.5	Existing item 2.5.2 has been amended to align with IACS UR M43, Rev.1, Feb 2024.
SECTION 4 REQUIREMENTS FOR AUTOMATION ON SHIPS HAVING AUTOMATION MARK AUT 2	
Head 4.1	In Table 4.1, item 4, a reference is made to the requirements outlined in the Rules for the Classification of Ships, Part 9 - Machinery, Section 8.

PART 13

AMENDMENTS No. 1

2 CONTROL AND MONITORING SYSTEMS

■ **Head 2.5 REMOTE CONTROL AND AUTOMATIC REMOTE CONTROL SYSTEMS**, item 2.5.2 has been changed and should be read as follows:

2.5.2 Bridge control of propulsion machinery

2.5.2.1 The bridge control for main propulsion machinery shall include in addition to the requirements of the *Rules, Part 7 - Machinery Installations*, item 1.8, the following:

- .1 group alarms or propulsion machinery failure alarm,
- .2 remote control failure special alarm,
- .3 remote control supply failure alarm,
- .4 communication system with the engine control station,
- .5 shut down signalization,
- .6 slow down signalization,
- .7 possibility of override of shut-down and slow-down,
- .8 emergency run signalization,
- .9 starting failure signalization,
- .10 testing of visual and audible warning signalization.

2.5.2.2 All alarms, signals and lights referred to in 2.5.2.1, except those under 4, shall not be totally dimmed.

2.5.2.3 Communication system with the main control station shall include the following:

- .1 direct telephone communication independent of the ship's supply system,
- .2 telegraph apparatus (which may be integral to the automatic remote control),
- .3 signals to indicate the location from which the control has been carried out,
- .4 signals for transfer of control.

2.5.2.4 The requirements referred to in 2.5.2.1 shall be also applicable to the main control station.

2.5.2.5 Override of emergency stop, emergency runs and shut down shall be so designed that they cannot be activated incidentally.

2.5.2.6 The remote control for propulsion machinery is to be provided with means of preventing overload and prolonged running in critical speed ranges of the propelling machinery.

2.5.2.7 The bridge control system is to be independent from the other transmission system; however, one control lever for both systems may be accepted.

2.5.2.8 Operations following any setting of the bridge control device including reversing from the maximum ahead service speed in case of emergency are to take place in an automatic sequence and with time intervals acceptable to the machinery.

2.5.2.9 Remote starting of the propulsion machinery is to be automatically inhibited if conditions exist which may hazard the machinery, e.g. shaft turning gear engaged, drop of lubricating oil pressure.

2.5.2.10 For steam turbines a slow-turning device is to be provided, which operates automatically if the turbine is stopped longer than admissible. Discontinuation of this automatic turning from the bridge must be possible.

NOTE: For attended machinery spaces, the slow turning device may be arranged to be operated manually.

2.5.2.11 The design of the bridge control system is to be such that in case of its failure an alarm is given. In this case the speed and direction of the propeller thrust are to be maintained until local control is in operation, unless this is considered impracticable. In particular, lack of power (electric, pneumatic, hydraulic) will not lead to major and sudden change in propulsion power or direction of propeller rotation.

2.5.2.12 Propulsion machinery orders from the navigation bridge shall be indicated in the main machinery control room and at the manoeuvring platform.

2.5.2.13 Indicators shall be fitted on the navigation bridge, the main machinery control room and at the manoeuvring platforms for the propeller speed and direction of rotation in the case of fixed pitch propellers.

2.5.2.14 Indicators shall be fitted on the navigation bridge, the main machinery control room and at the manoeuvring platform for the propeller speed and pitch position in the case of controllable pitch propellers.

2.5.2.15 For ships not covered by the SOLAS Convention, the bridge control of propulsion machinery shall, in addition, include the following requirements:

- .1 Under all sailing conditions, including manoeuvring, the speed, direction of thrust and, if applicable, pitch of the propeller shall be fully controllable from the navigating bridge.
- .2 The main propulsion machinery shall be provided with an emergency stopping device on the navigating bridge and independent from the bridge control system. Emergency stopping process is to be completely independent of normal operation and is to be supplied from a separate power source.
- .3 The number of automatic consecutive attempts that fail to produce a start shall be limited to maintain sufficient starting air pressure. An alarm shall be provided at an air pressure level, which still permits main engine starting operation.
- .4 The control system shall include means to prevent the propelling thrust from altering significantly when transferring control from one control to another.

PART 13

AMENDMENTS No. 1

4 REQUIREMENTS FOR AUTOMATION ON SHIPS HAVING AUTOMATION MARK AUT 2

■ **Head 4.1 GENERAL REQUIREMENTS**, Table 4.1, item 4 has been changed and should be read as follows:

No.	Controlled parameter	Location of measuring point	Alarm activation	Protective action	Remote Indication	Remarks
1	CROSS-HEAD DIESEL ENGINES					
1.1	Fuel oil system					
1.1.1	Fuel oil pressure	After filter (engine inlet)	Min.	Automatic start of standby pump	On call	
1.1.2	Fuel oil viscosity/temp.	Before injection pumps	Max./Min.			
1.1.3	Leakage from high pressure pipes	Slop tank	Alarm			Also see the <i>Rules for the classification of ships, Part 9 – Machinery</i>
1.1.4	Level of fuel oil in daily service tank	Daily service tank	Min.			High-level alarm is also required if no suitable overflow arrangement is provided
1.1.5	Common rail fuel oil pressure		Min.			
1.2	Lubricating oil system					
1.2.1	Main bearing and thrust bearing lub. oil pressure		Min.	Automatic start of standby pump. Slow down. Shut down.	Cont.	
1.2.2	Crosshead bearing lub. oil pressure		Min.	Automatic start of standby pump. Slow down. Shut down.	Cont.	If separate lub. oil system is installed
1.2.3	Camshaft lub. oil pressure		Min.	Automatic start of standby pump. Shut down.		If separate lub. oil system is installed
1.2.4	Lub. oil to camshaft temp.		Max.			If separate lub. oil system is installed
1.2.5	Lub. oil inlet temp.	At inlet	Max.			–
1.2.6	Thrust bearing pads temp. or bearing outlet temp.		Max.	Slow down. Shut down.		–
1.2.7	Activation of oil mist detection arrangements (or activation of the temperature monitoring systems or equivalent devices of: - the engine main, crank and crosshead bearing oil outlet; or - the engine main, crank and crosshead bearing)		Max.	Slow down.		When required by IACS UR M10.8 or by SOLAS Reg. II-1/47.2
1.2.8	Flow rate cylinder lubricator		Min.	Slow down.		Each apparatus
1.2.9	Lubricating oil level	Lubricating oil tanks	Min.			Where separate lubricating oil system is installed (e.g. crankshaft, rocker arms, etc.), individual level alarms are required for each tank
1.2.10	Common rail servo oil pressure		Min.			
1.3	Turbocharge system					
1.3.1	Turbocharger lub. oil inlet pressure	At inlet	Min.			Unless provided with a self-contained lub. oil system integrated with the turbocharger
1.3.2	Turbocharger lub. oil outlet temp.	At outlet of each bearing	Max.			Where outlet temp. from each bearing cannot be monitored due to the engine/turbocharger design alternative arrangement may be accepted
1.3.3	Speed of turbocharger		Max.		Cont.	Required only for turbochargers of Cat. B & C – see IACS UR M73.5

No.	Controlled parameter	Location of measuring point	Alarm activation	Protective action	Remote Indication	Remarks
1.4	Piston cooling system					
1.4.1	Piston coolant pressure	At inlet	Min.	Slow down. Automatic start of standby pump		The slowdown is not required if the coolant is oil taken from the main cooling system of the engine
1.4.2	Piston coolant temp.	At outlet of the each piston	Max.	Slow down		
1.4.3	Piston coolant flow	For each cylinder	Min.	Slow down		Where outlet flow cannot be monitored due to engine design, alternative arrangement may be accepted
1.4.4	Level of piston coolant	In expansion tank	Min.			
1.5	Sea water cooling system					
1.5.1	Sea water pressure	After cooling pump	Min.	Automatic start of standee	Cont.	–
1.6	Cylinder fresh cooling water system					
1.6.1	Cylinder water inlet pressure	At inlet	Min.	Slow down. Automatic start of standby pump.	Cont.	Pressure monitoring may be substituted by monitoring of flow rate
1.6.2	Cylinder water temp.	At each cylinder outlet	Max.	Slow down	On call	Where one common cooling space without individual stop valves is employed for all cylinder jackets, water outlet temp. (general) may be taken
1.6.3	Oil contamination of engine cooling water system		Alarm			Where main engine cooling water is used in fuel and lubricating oil heat exchangers
1.6.4	Cylinder cooling water level	Expansion tank	Min.			
1.7	Starting and control air systems					
1.7.1	Starting air pressure	Before main shut-off valve	Min.		Cont.	Auto-start of compressor for automation mark AUT1 or AUT2
1.7.2	Control air pressure		Min.			
1.7.3	Safety air pressure		Min.			
1.8	Scavenging air system					
1.8.1	Scavenging air pressure	At scavenger receiver			Cont.	
1.8.2	Scavenging air box temp. (fire)	At scavenger receiver	Max.	Slow down.		
1.8.3	Scavenging air water level	At scavenger receiver	Max.		On call	
1.9	Exhaust gas system					
1.9.1	Exhaust gas temp.	After each cylinder	Max.	Slow down.	On call	
1.9.2	Exhaust gas temp. - deviation from average	After each cylinder	Max.			
1.9.3	Exhaust gas temp.	Before each T/C	Max.		On call	
1.9.4	Exhaust gas temp.	After each T/C	Max.		On call	
1.10	Fuel valve coolant					
1.10.1	Pressure of fuel valve coolant	At inlet	Min.	Automatic start of standby pump	Cont.	
1.10.2	Temp. of fuel valve coolant	At outlet	Max.		On call	–
1.10.3	Level of fuel valve coolant	In expansion tank	Min.			
1.11	Engine speed/direction of rotation				Cont.	–
1.11.1	Wrong way		Alarm			
1.12	Engine overspeed			Shut down		
1.13	Control Safety-Alarm system power supply failure		Alarm			

PART 13

AMENDMENTS No. 1

No.	Controlled parameter	Location of measuring point	Alarm activation	Protective action	Remote Indication	Remarks
2	TRUNK-PISTON DIESEL ENGINES					
2.1	Fuel oil system					
2.1.1	Fuel oil pressure	Before filter (engine inlet)	Min.	Automatic start of standby pump	On call	–
2.1.2	Fuel oil viscosity/temperature	Before injection pumps	Max./Min.	For heavy fuel oil burning engines only.		
2.1.3	Leakage from high pressure pipes	Slop tank	Alarm			Also see the <i>Rules for the classification of ships, Part 9 – Machinery</i>
2.1.4	Level of fuel	Daily service tank	Min.			High-level alarm is also required if no suitable overflow arrangement is provided
2.2	Lubricating oil system					
2.2.1	Main bearing and thrust bearing, lub. oil pressure		Min.	Automatic start of standby pump. Shut down	Cont.	
2.2.2	Lub. oil filter differential pressure	On filter	Max.		Cont.	
2.2.3	Lub. oil temp.	At inlet	Max.		On call	
2.2.4	Activation of oil mist detection arrangements (or activation of the temperature monitoring systems or equivalent devices of: - the engine main and crank bearing oil outlet; or - the engine main and crank bearing)		Max	Shut down ¹ (see note)		Note 1
2.2.5	Cylinder lub. oil flow	At lubricator	Min.	Slow down		Each apparatus
2.2.6	Common rail servo oil pressure		Min.			
2.3	Turbocharger system					
2.3.1	Turbocharger lub. oil pressure	At inlet	Min.		On call	If with external lub. oil system
2.3.2	Turbocharger lub. oil temp.	At outlet of each bearing	Max.			
2.3.3	Speed of turbocharger		Max		Cont.	Required only for turbochargers of Cat. B & C – see IACS UR M73.5
2.4	Sea water cooling system					
2.4.1	Sea water pressure	After cooling	Min.	Automatic start	Cont.	–
2.5	Cylinder fresh cooling water system					
2.5.1	Cylinder cooling water pressure or flow	At inlet	Min.	Slow down. Automatic start of standby pump.	Cont.	–
2.5.2	Cylinder cooling water temp.	At outlet	Max.	Slow down	On call	Two separate sensors are required for alarm and slow down
2.5.3	Level of cylinder cooling water	Expansion tank	Min.			
2.6	Starting and control air systems					
2.6.1	Starting air pressure	Before main	Min.		Cont.	Auto-start of compressor for automation mark AUT1 or AUT2
2.6.2	Control air pressure		Min.		Cont.	
2.7	Scavenging air system					
2.7.1	Scavenging air temp.	At scavenger receiver	Max.			
2.8	Exhaust gas system					
2.8.1	Exhaust gas temp	After each cylinder	Max.	Slow down.	On call	For engine power more than 500 kW/cyl.
2.8.2	Exhaust gas temp. (Deviation from average)	After each cylinder	Max.			For engine power more than 500 kW/cyl.
2.9	Engine speed				Cont.	
2.10	Engine overspeed		Alarm	Shut down.		
2.11	Control Safety-Alarm system power supply failure		Alarm			

No.	Controlled parameter	Location of measuring point	Alarm activation	Protective action	Remote Indication	Remarks
3	STEAM TURBINES					
3.1	Lub-oil pressure	After cooler	Min.	Shut down.	Cont.	–
3.2	Differential pressure in lub oil system	At filter	Max.	–	Cont.	–
3.3	Lub oil temperature	At each bearing outlet	Max.	–	Cont.	–
3.4	Lub oil level	Gravity tank	Min.	–	Cont.	–
3.5	Steam pressure	Before manoeuvring valves for the ahead and astern turbines	–	–	–	–
3.6	Steam pressure	At bleeders	–	–	On call	–
3.7	Steam temperature	Before manoeuvring valves	Max./Min.	–	On call	–
3.8	Steam pressure	End glands	Max.	–	Cont.	–
3.9	Steam pressure	Condenser	Max.	Shut down.	Cont.	–
3.10	Pressure	Deaerator	Max.	–	On call	–
3.11	Water level in condenser	Condense	Max.	–	On call	When installed in the same plane as the low-pressure turbine
3.12	Water pressure of condensate pump	At condensate pump outlet	Min.	–	On call	–
3.13	Salinity of condensate	After condenser	Max.	–	On call	–
3.14	Vibration of turbine	Turbine casing	Max.	Shut down	–	–
3.15	Axial displacement of rotor	–	Max.	Shut down	–	–
3.16	Sea water pressure	On circulating pump outlet	Min.	–	Cont.	–
3.17	Failure of main boiler or excessive reduction of stem pressure	–	–	Shut down	–	–
4	GAS TURBINES					
	For the requirements for Gas Turbines refer to the Rules for the classification of ships, Part 9 - Machinery, Section 8					
5	MAIN AND AUX. BOILERS					
5.1	Steam pressure	Boiler drum or at superheater outlet	Min./Max.	Shut down	Cont.	Low pressure alarm, only for auxiliary boiler of essential service. Shut down and low pressure alarm for main boiler is not required.
5.2	Steam temperature	At superheater outlet	Max.	–	On call	–
5.3	Steam temperature	At cooler outlet	Max.	–	On call	–
5.4	Water level	Boiler drum	Min./Max.	Shut down	Cont.	For main boiler shut down for high level is not required
5.5	Feed water pressure	Pump outlet	Min.	Shut down	Cont.	Shut down required only for boiler with forced circulation
5.6	Fuel pressure	Before burner	Min.	Shut down	On call	–
5.7	Fuel viscosity (or temperature)	Before burner	Max./Min.	Shut down	On call	For main boiler shut down is not required.
5.8	Combustion air pressure	At furnace inlet	Min.	Shut down	On call	For main boiler shut down is not required
5.9	Salinity of feed water	Feed pump outlet	Max.	–	On call	–
5.10	Flame	–	Flame failure	Shut down	–	–
5.11	Oil fuel level	Daily service tank	Min.	–	On call	–
5.12	Oil fuel temperature	Daily service tank	Max.	–	On call	If heating arrangements are provided
5.13	Electrical power supply	Power supply unit	Failure	Shut down	–	–
5.14	Water level	Hot well	Min.	–	–	–
6	ELECTRIC GENERATING PLANT					
6.1	Voltage	Main switchboard	Min.	–	Cont.	If the main switchboard is located at the main control station, alarms and indication may be fitted
6.2	Current	Main switchboard	Max.	–	Cont.	–
6.3	Frequency	Main switchboard	–	–	Cont.	–

PART 13

AMENDMENTS No. 1

No.	Controlled parameter	Location of measuring point	Alarm activation	Protective action	Remote Indication	Remarks
7	GENERATORS DRIVEN BY DIESEL ENGINES					
7.1	Lub oil pressure	At inlet	Min.	Shut down	On call	–
7.2	Lub oil temperature	At inlet	Max.	–	On call	–
7.3	Temperature of cooling water or cooling air	At inlet	Max.	–	On call	–
7.4	Pressure or flow of cooling water	At inlet	Min.	–	On call	If operating with heavy fuel, also for cooling system of fuel valves
7.5	Starting air pressure	At starting valve	Min.	–	On call	–
7.6	Oil fuel level	Daily service tank	Min.	–	–	If operating with heavy fuel, the fuel viscosity or temperature to be monitored
7.7	Fuel oil leakage from high-pressure piping	Fuel leakage tank	Alarm	–	–	–
7.8	Cooling water level	Expansion tank	Min.	–	–	If not connected to the main system
7.9	Activation of oil mist detection arrangements (or activation of the temperature monitoring systems or equivalent devices of: - the engine main and crank bearing oil outlet; or - the engine main and crank bearing)		Max.	Shut down 1 (see note)		Note 1.
7.10	Overspeed activated			Shut down	–	–
7.11	Heavy fuel viscosity / temp.	Before injection pump	Min./Max.	–	–	For heavy fuel oil burning engines only
7.12	Exhaust gas temperature	After each cylinder	Max.	–	–	For engine power above 500kW/cyl.
7.13	Common rail fuel oil pressure		Min.			
7.14	Common rail servo oil pressure		Min.			
7.15	Speed of turbocharger		Max.		Cont.	Required only for turbochargers of Cat. B & C – see IACS UR M73.5
8	STEAM TURBINES DRIVING GENERATORS					
8.1	Luboil pressure	Oil cooler outlet	Min.	Shut down	On call	In case of gravity lubrication, alarm of low level in gravity tank to be provided
8.2	Lub oil temperature	Bearing outlet	Max.	–	On call	–
8.3	Steam pressure	Condenser	Max.	Shut down	On call	–
8.4	Steam pressure	Turbine inlet	Min.	–	On call	–
8.5	Water level	Condenser	Max.	–	–	–
8.6	Axial displacement of rotor	–	Max.	Shut down	–	–
9	SHAFTING, CP - PROPELLERS					
9.1	Shaft r.p.m. indicator	–	–	–	Cont.	–
9.2	Luboil temperature	Thrust bearing	Max.	–	On call	–
9.3	Luboil temperature	Sliding bearing	Max.	–	On call	Common signal for permitted water cooled bearings
9.4	Lubrication of stern bush bearing	–	No. lub.	–	On call	–
9.5	Stern bush lub. oil level	Stern bush. oil tank	Min.	–	–	For oil lubricated stern bush bearing
9.6	Blade position (pitch and turn position)	–	–	–	Cont.	–
9.7	Pitch hydraulic system pressure	Hydraulic pump outlet	Min.	–	Cont.	–
9.8	Pitch hydraulic oil supply level	Tank	Min.	–	On call	–
9.9	Temperature of stern bush bearings	–	Max.	–	On call	For oil lubricated stern bush bearing
9.10	Temperature of stern bush lub. oil	–	Max.	–	On call	–
10	REDUCTION GEARS AND COUPLING					
10.1	Lub. oil temperature	Each bearing outlet	Max.	–	On call	Common alarm is permitted
10.2	Lub oil pressure	Coupling inlet	Min.	Disengagement or shut down of engine	Cont.	–

No.	Controlled parameter	Location of measuring point	Alarm activation	Protective action	Remote Indication	Remarks
10.3	Pressure in lub. oil system of reduction gear	At inlet	Min.	–	Cont.	–
10.4	Temperature of reduction gear lub. oil	At outlet	Max.	–	–	–
10.5	Oil level	At tank	Min.	–	–	–
11	COMPRESSED AIR SYSTEM					
11.1	Air temperature	Compressor outlet	Max.	–	–	–
11.2	Lub. oil pressure	Compressor inlet	Min.	Shut down	On call	–
11.3	Cooling water temperature		Max.	Shut down		
12	BILGE SYSTEM					
12.1	Bilge level	Bilge wells	Max./Min.			At remote control location
13	FUEL AND LUB. OIL PURIFYING SYSTEMS					
13.1	Water and fuel (or lub. oil) temperature	Purifier inlet	Max./Min.	–	On call	–
13.2	Fuel and water flow	In purifier	Min.	–	On call	–
13.3	Vibrations	Purifier casing	Max.	Shut down	–	–
14	INERT GAS SYSTEM					
14.1	Inert gas pressure	Gas generating unit outlet	Min.	–	–	–
14.2	Inert gas temperature	Gas generating unit outlet	Max.	Burner shut down	–	–
14.3	Combustion air pressure	Combustion chamber inlet	Min.	Burner shut down	–	–
14.4	Fuel oil pressure	Burner inlet	Min.	–	–	–
14.5	Fuel oil temperature	Burner inlet	Max.	–	–	For heavy fuel oil
14.6	Flame and ignition	–	Failure	Fuel flow break	–	–
14.7	Low pressure or low speed of purifier cooling water flow	Purifier inlet	Min.	–	–	–
14.8	Oxygen percentage	–	Max.	–	–	–
14.9	Low water level	Deck water seal	Min.	–	–	–
15	CARGO AND BALLAST PUMPS IN HAZARDOUS SPACES					
15.1	Bearing temperature	–	Max.	–	–	–
15.2	Pump casing temperature	–	Max.	–	–	Cargo pumps only
15.3	Bulkhead gland temperature	–	Max.	–	–	–
16	OTHER ITEMS					
16.1	Refrigerating plant	Failure in system	–	–	–	Common alarm

NOTE:

- ¹⁾ When required by IACS UR M10.8 or by SOLAS Reg. II-1/47.2, for each engine, one oil mist detector (or engine bearing temperature monitoring system or equivalent device) having two independent outputs for initiating the alarm and shut-down would satisfy the requirements for independence between alarm and shut-down systems.