

Amendments to the “Rules for the Certification of Service Suppliers”

RFP/009/AMN/01

Effective from 1/7/2023

List of the amendments:

| Paragraph/Appendix amended | Reason |
|--|---|
| [1.2], [2.4] Appendix D: [D.2.3] Appendix E: Title, [E.1.1], [E.5] Appendix N: [N.1] Appendix S: [S.3.1], [S.5.4], [S.7.1] | to introduce IACS UR Z17 (Rev 17 – July 2022) “Procedural Requirements for Service Suppliers” |
| Appendix O: [O.3.4] Appendix S: [S.2.1.2](deleted), [S.4.1], [S.6.1] | to introduce IACS UR Z17 (Rev 18 – Feb 2023) “Procedural Requirements for Service Suppliers” |
| Appendix E: [E.2], [E.3], [E.5] | to introduce IACS UR Z17 (Rev 18 Corr 1 – May 2023) “Procedural Requirements for Service Suppliers” also covering the EMSA finding relevant to the lack of reference to Res. MSC.388(94) amending Res. A.761(18) in Appendix E on Firms engaged in LSA servicing (Prop. 223) |
| [1.5], Annex 2 (new) | to introduce requirements for the certification on voluntary basis of firms engaged in surveys of masts and rigging of sailing ships (Riggers) (Prop. 224) |

1 GENERAL

These Rules set the minimum requirements for approval and certification of firms providing services such as measurements, tests or maintenance of safety systems and equipment and is applicable to both initial and renewal audits.

1.1 Definitions

- **Manufacturer:** A company that manufactures equipment required to be periodically serviced and/or maintained.

- **Service Supplier:** A person or company, not employed by an IACS Member, who at the request of an equipment manufacturer, shipyard, vessel's owner or other client acts in connection with inspection work and provides services for a ship or a mobile offshore unit such as measurements, tests or maintenance of safety systems and equipment, the results of which are used by surveyors in making decisions affecting classification or statutory certification and services.

- **Agent:** A Person or Company authorised to act for or to represent a Manufacturer or approved/recognized service supplier.

- **Subsidiary:** A Company partly or wholly owned by a Manufacturer or approved/recognized service supplier.

- **Subcontractor:** A Person or Company providing services to a Manufacturer or recognized service supplier, with a formal contract defining the assumption of the obligations of the service supplier.

1.2 Application

These Rules apply to the approval of the following categories of service suppliers:

a) Statutory services

- 1) Firms engaged in servicing inflatable liferafts, inflatable lifejackets, hydrostatic release units, ~~inflatable rescue boats,~~ marine evacuation systems;
- 2) Firms engaged in inspections and testing of radio communication equipment;
- 3) Firms engaged in inspections and maintenance of self contained breathing apparatus;
- 4) Firms engaged in annual performance testing of Voyage Data Recorders (VDR) and simplified Voyage Data Recorders (S-VDR);
- 5) Firms engaged in sound pressure level measurements of public address and general alarm systems on board ships;
- 6) Firms engaged in inspections of low location lighting systems using photo luminescent materials and evacuation guidance systems used as an alternative to low-location lighting systems;
- 7) Firms engaged in maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear;
- 8) Firms engaged in inspection, performance testing and maintenance of Automatic Identification Systems (AIS);

- 9) Firms engaged in Commissioning Testing of Ballast Water Management System (BWMS).
- b) Classification and/or Statutory services:
 - 1) Firms engaged in thickness measurements on ships or mobile offshore units except:
 - non-ESP ships less than 500 gross tonnage and
 - all fishing vessels;
 - 2) Firms carrying out an in-water survey on ships and mobile offshore units by diver or Remotely Operated Vehicle (ROV);
 - 3) Firms engaged in inspections and maintenance of fire extinguishing equipment and systems;
 - 4) Firms engaged in tightness testing of closing appliances such as hatches, doors etc. with ultrasonic equipment;
 - 5) Firms engaged in measurements of noise level on board ships;
 - 6) Firms engaged in examination of Ro-Ro ship's bow, stern, side and inner doors;
 - 7) Firms engaged in testing of coating systems in accordance with IMO Resolution MSC.215(82), as amended, and IACS UI SC223 and/or MSC.288(87), as amended;
 - 8) Firms engaged in tightness testing of primary and secondary barriers of gas carriers with membrane cargo containment systems for vessels in service;
 - 9) Firms engaged in survey using Remote Inspection Techniques (RIT) as an alternative means for Close-up Survey of the structure of ships and mobile offshore units.
 - 10) Firms engaged in Cable Transit Seal Systems inspection on ships and Mobile Offshore Units.

Where Tasneef accepts work of a third party (eg., service supplier) approved by itself, Tasneef is to verify the performance of such services. For statutory service, the flag State may increase the scope of verification to be applied to these services.

Where the results of the following service providers are used by Surveyor in making decisions affecting classification services then that service provider is to be approved and verified by Tasneef:

- 1) Firms engaged in thickness measurements on ships ~~ships~~ or mobile offshore units except:
 - non-ESP ships less than 500 gross tonnage and
 - all fishing vessels;
- 2) Firms carrying out an in-water survey on ships and mobile offshore units by diver or Remotely Operated Vehicle (ROV);
- 3) Firms engaged in tightness testing of closing appliances such as hatches, doors etc. with ultrasonic equipment;
- 4) Firms engaged in survey using Remote Inspection Techniques (RIT) as an alternative means for Close-up Survey of the structure of ships and mobile offshore units.

Where such services are used by Tasneef Surveyors in making decisions affecting statutory certification and service, the firms are subject to approval and verification by Tasneef where Tasneef is so authorised by the

relevant flag Administration (i.e. the flag of the ship on which the servicing is to be done or the service equipment is to be used). For such services Tasneef may accept approvals done by:

- a) the flag Administration itself,
- b) duly authorized organizations acting on behalf of the flag Administration, or
- c) other organizations acceptable to the flag Administration (e.g. other governments, etc.).

Use of the approved service suppliers is not mandatory for the following services, unless instructed otherwise by the flag Administration with respect to statutory certification:

- a) Firms engaged in inspections of low location lighting systems using photo luminescent materials and evacuation guidance systems used as an alternative to low-location lighting systems;
- b) Firms engaged in sound pressure level measurements of public address and general alarm systems on board ships;
- c) Firms engaged in measurements of noise level onboard ships;
- d) Firms engaged in testing of coating systems in accordance with IMO Resolution MSC.215(82) as amended and IACS UI SC223 and/or MSC.288(87) as amended;
- e) Firms engaged in examination of Ro-Ro ships bow, stern, side and inner doors.

1.3 Equivalence with other standards

In general, the application of these Rules is in compliance with the requirements of IACS Unified Requirement Z17 "Procedural requirements for service suppliers" and of IACS Procedural Requirements No. 23 "Procedures for reporting information on the approval of thickness measurements firms".

1.4 Voluntary certification

Suppliers of services other than those listed in [1.2] need not be certified by Tasneef or by the ship's flag Administration. However, such firms may request Tasneef to certify them as Service Suppliers on a voluntary basis.

1.5 Specific requirements for particular services

These Rules include general requirements applicable to all categories of service suppliers: firms for which the certification is mandatory, and firms that request the certification on a voluntary basis. Additional specific requirements for the firms listed in [1.2], including national and/or international requirements, may be found from Appendix A to Appendix Q. Additional requirements for certification on voluntary basis of firms engaged in testing cyber resilience of ships, may be found in Annex 1. [Additional requirements for certification on voluntary basis of firms engaged in surveys of masts and rigging of sailing ships \(Riggers\), may be found in Annex 2.](#)

1.6 Abbreviations

Hereafter the Firms supplying services are referred to as "suppliers".

2 PROCEDURES FOR APPROVAL AND CERTIFICATION

2.1 Application and documentation

For approval, the company has to submit an application to Tasneef, specifying the categories for which approval is required and enclosing:

- 1) outline of company, e.g. organisation and management structure, including subsidiaries to be included in the approval/certification;
- 2) list of nominated agents, subsidiaries and subcontractors;
- 3) experience of the company in the specific service area;
- 4) for categories of Service Suppliers that require certification from manufacturers, manufacturer's documentary evidence that the Service Supplier has been certified or licensed to service the particular makes and models of equipment for which approval is sought shall be provided;
- 5) list of operators, technicians and inspectors documenting training and experience within the relevant service area, and qualifications according to recognised national, international or industry standards, as relevant;
- 6) description of equipment used for the particular service for which approval is sought;
- 7) guide for operators of such equipment;
- 8) training programmes for operators, technicians and inspectors;
- 9) checklists and record formats for recording results of the services carried out;
- 10) Quality Manual and/or documented procedures used for assuring the quality of the services (see [4.5]);
- 11) documented procedures for communication with the crew prior to commencing work, so that it is safe to decommission the equipment being maintained, and to provide a safe system of work in place;
- 12) evidence of approval/acceptance by other bodies, if any;
- 13) information on any other activities which may present a conflict of interest;
- 14) record of customer claims and of corrective actions requested by certification bodies;
- 15) Operators/technicians/inspectors documentation they have acknowledged the code of conduct.

2.2 General requirements

2.2.1 Extent of approval

The supplier is to demonstrate, as required by [2.2.2] to [2.2.9], that he has the competence and control needed to perform the services for which approval is sought

2.2.2 Training of personnel

The supplier is responsible for the qualification and training of its personnel to a recognised national, international or industry standard as applicable. Where such standards do not exist, the supplier is to define standards for the training and qualification of its personnel relevant to the functions they are authorised to perform.

The personnel are also to have adequate experience and be familiar with the operation of any necessary equipment.

Operators/technicians/inspectors are to have had a minimum of one year tutored on-the-job training.

Where it is not possible to perform internal training, a program of external training may be considered acceptable.

2.2.3 Supervision

The supplier is to provide supervision for all services provided. The supervisor responsible is to have had a minimum of two years of experience as an operator/technician/ inspector in the activity for which the supplier is approved.

For a supplier consisting of one person, that person is to meet the requirements of a supervisor.

2.2.4 Personnel records

The supplier is to keep records of the approved operators, technicians and inspectors. The record is to contain information on age, formal education, training and experience in the services for which they are approved.

2.2.5 Equipment and facilities

The supplier is to have the necessary equipment and facilities for the service to be supplied. A record of the equipment used is to be kept and available. The record is to contain information on maintenance and results of calibration and verifications. Tasneef is to assess and record the validity of previous measuring results when the equipment is found not to conform to requirements. Tasneef is to take appropriate action on the equipment affected.

2.2.6 Control of data

When computers are used for the acquisition, processing, recording, reporting, storage, measurement assessment and monitoring of data, the ability of computer software to satisfy the intended application is to be documented and confirmed by the service supplier. This is to be undertaken prior to initial use and reconfirmed as necessary.

Note 1: Commercial off-the-shelf software (e.g. wordprocessing, database and statistical programmes) in general use within their designed application range may be considered to be sufficiently validated and do not require any subsequent confirmation.

2.2.7 Where several servicing stations are owned by a given company, each station is to be assessed and approved except as specified in [2.5.3].

2.2.8 Procedures

The supplier is to have documented work procedures covering all services supplied.

2.2.9 Subcontractors

The supplier is to give information of agreements and arrangements if any parts of the services provided are subcontracted. Particular emphasis is to be given to quality management by the supplier in following-up of such subcontracts.

Subcontractors providing the services of the approved service supplier are also to meet the requirements in [2].

2.2.10 Verification

The supplier is to verify that the services provided (including those supplied by subcontractors) are carried out in accordance with approved procedures.

2.2.11 Reporting

The report is to be prepared in a form agreed with Tasneef. The report should detail the results of inspections, measurements, tests, maintenance and/or repairs carried out. Further instructions may be given in Appendixes. The report is to include a Copy of the Certificate of Approval.

Documented procedures and instructions are to be available for the recording of damages and defects found during inspection, servicing and repair work. This documentation is to be made available upon request.

2.3 Auditing of the supplier

Subject to the satisfactory outcome of the review of the documents submitted, the supplier is audited in order to ascertain that it is duly organised and managed in accordance with the submitted documents, and that it is capable of conducting the services for which approval/certification is sought.

2.4 Service performance

Certification is conditional on a practical demonstration of the performance of the specific service as well as satisfactory reporting being carried out. This performance may be demonstrated during the supply of an actual service or by a simulated service, provided the simulation is fully representative of an actual service.

[At initial audits, when the service supplier is already certified by other QSCS certified Society according to the provision of IACS Unified Requirement Z17 "Procedural requirements for service suppliers", this may be verified through documentary review that a practical demonstration has already been carried out.](#)

At renewal audits, ~~evidence of performance~~, verificationed by [documentary review of jobs undertaken](#)~~class surveyor~~, since the previous audit [and that have been accepted by a QSCS certified Society](#) is [acceptable and is](#) sufficient to satisfy this requirement.

2.5 Quality System

2.5.1 The supplier is to have a documented system covering at least the following:

Appendix D - Firms engaged in surveys and maintenance of fire extinguishing equipment and systems

D.1 EXTENT OF ENGAGEMENT

This Appendix contains additional specific requirements for the issue of the Qualification Certificate of suppliers engaged in surveys and maintenance of fire-extinguishing equipment and systems, such as fixed fire extinguishing systems, portable fire extinguishers and fire detection and alarm systems.

D.2 SPECIFIC REQUIREMENTS FOR QUALIFICATION

D.2.1 Extent of approval

- (a) Service Suppliers are to have professional knowledge of fire theory, fire-fighting and fire-extinguishing appliances sufficient to carry out the maintenance and/or surveys, and to make the necessary evaluations of the condition of the equipment
- (b) In demonstrating professional knowledge, Service Suppliers are to have an understanding of the various types of fires and the extinguishing media to be used on them
- (c) For fixed fire-extinguishing systems, Service Suppliers are to demonstrate an understanding of the principles involved with gas, foam, deluge, sprinkler and watermist systems, as relevant for the approval being sought

D.2.2 Procedures

- (a) Service Suppliers are to have documented procedures and instructions on how to carry out the servicing of the equipment and/or system. These are to either contain or make reference to the Manufacturer's servicing manuals, servicing bulletins, instructions and training manuals, as appropriate, and to international requirements
- (b) Additionally they are to make reference to any requirements (e.g. what markings should be appended to the equipment/system)

D.2.3 Reference Documents

The Service Supplier is to have access to the following documents:

- (a) Manufacturer's servicing manuals, servicing bulletins, instructions and training manuals, as appropriate
- (b) Type Approval certificates showing any conditions that may be appropriate during the servicing and/or maintenance of fire-extinguishing equipment and systems
- (c) SOLAS, MSC.1/Circular.1318/Rev.1 ([Revised Guidelines for the Maintenance and Inspections of Fixed Carbon Dioxide Fire-Extinguishing Systems](#)), International Code for Fire Safety Systems (FSS Code), ISO 6406 (Periodic inspection and testing of

seamless steel gas cylinders), and any documentation specified in the authorisation or license from the equipment manufacturer

- (d) MSC/Circ.670 (Guidelines for the Performance and Testing Criteria and Surveys of High Expansion Foam Concentrates for fixed Fire-Extinguishing Systems)
- (e) MSC/Circ.798 (Guidelines for the Performance and Testing Criteria and Surveys of Medium Expansion Foam Concentrates for fixed Fire-Extinguishing Systems)
- ~~(f) MSC/Circ.799 ((Guidelines for the Performance and Testing Criteria and Surveys of Expansion Foam Concentrates for fixed Fire-Extinguishing Systems of Chemical Tankers)~~
- ~~(g)~~(f) MSC.1/Circ.1312 (Revised Guidelines for the Performance and Testing Criteria and Surveys of Foam Concentrates for fixed Fire-Extinguishing Systems as corrected by MSC/Circ.1312/Corr.1)
- ~~(h)~~(g) MSC.1/Circ.1432 (Revised Guidelines for the maintenance and Inspection of Fire Protection Systems and Appliances, [as amended by MSC.1/Circ.1516](#))
- ~~(i)~~(h) IMO Res. A. 951(23) – Improved guidelines for marine portable fire extinguishers
- ~~(j)~~(i) MSC.1/Circ.1370 – Guidelines for the design, construction and testing of fixed hydrocarbon gas detection systems
- ~~(k)~~(j) Guidelines adopted by IMO for fire extinguishing equipment and systems specifically intended for service by service suppliers

D.2.4 Equipment and Facilities

D.2.4.1 General Requirements

- (a) If Service Suppliers undertake shore-based surveying and maintenance, they should maintain and implement procedures for workshop cleanliness, ventilation and arrangement, with due cognisance of the spares and extinguishing media being stored, to ensure safe and effective working procedures
- (b) Service Suppliers undertaking surveying and maintenance of equipment and systems onboard are to provide the appropriate facilities to either complete the work onboard or remove the necessary items to their workshops

D.2.4.2 Equipment

Sufficient and appropriate spares and tools are to be available as applicable, which are to include:

- (a) Various scales to weigh items
- (b) Means to hydrostatically pressure test components/systems/storage bottles

Appendix E - Firms engaged in servicing inflatable liferafts, inflatable lifejackets, hydrostatic release units, ~~inflatable rescue boats~~, marine evacuation systems

E.1 EXTENT OF ENGAGEMENT

E.1.1

This Appendix contains the specific requirements for the issue of the Qualification Certificate of suppliers engaged in the following services:

- a) Servicing of inflatable liferafts, inflatable lifejackets, hydrostatic release units ~~and/or inflatable rescue boats~~
- b) Servicing of marine evacuation systems

E.1.2

The Supplier is to report on the supplied service as per [2.2.9].

E.2 EQUIPMENT AND FACILITIES

Service stations for inflatable liferafts are to be approved according to the conditions stated in IMO Res. A.761(18) as amended by IMO Res. ~~olutions~~ [MSC.55\(66\)](#) and [MSC.388\(94\)](#).

Where inflatable liferafts are subject to extended service intervals, MSC.1/Circ.1328 should also be followed.

E.3 PROCEDURES AND INSTRUCTIONS

The supplier is to have documented procedures and instructions on how to carry out servicing of equipment. Where inflatable liferafts are subject to extended service intervals in accordance with the requirements of SOLAS Regulation III/20.8.3, MSC.1/Circ.1328 is to be followed in addition to Resolution A.761(18) as amended by [Resolutions](#) [MSC.55\(66\)](#) and [MSC.388\(94\)](#).

E.4 LICENCE

The supplier is to provide evidence that it has been authorised or licensed to service the particular makes and models of equipment for which approval is sought by the equipment manufacturer.

E.5 REFERENCE DOCUMENTS

The Service Supplier is to have access to the following documents:

- a) IMO - Resolution A.761(18) - Recommendation on Conditions for the Approval of Servicing Stations for Inflatable Liferafts - (adopted on 4 November 1993), amended by [Resolutions](#) [MSC.55\(66\)](#) and [MSC.388\(94\)](#)
- b) [IMO - Resolution MSC.55\(66\)](#)
- c) [IMO - Resolution MSC.388\(94\)](#)

~~e)~~d) [IMO – MSC.1/Circ.1328 – Guidelines for the Approval of Inflatable Liferafts Subject to Extended Service Intervals Not Exceeding 30 Months](#)

~~e)~~e) [Manufacturer's servicing manuals, servicing bulletins, instructions and training manuals, as appropriate](#)

~~f)~~f) [Type Approval certificates, showing any conditions that may be appropriate during the servicing and/or maintenance of inflatable liferafts, ~~inflatable rescue boats~~, inflatable lifejackets, and hydrostatic release units](#)

~~f)~~g) [LSA code/Chap.IV, 1995 SOLAS Conference Resolution 4 regarding marine evacuation systems.](#)

Appendix N - Firms engaged in maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear

N.1 EXTENT OF ENGAGEMENT

This appendix contains additional specific requirements for the issue of the qualification certificate of suppliers engaged in maintenance, thorough examination, operational testing, overhaul and repair of:

- 1) lifeboats (including free-fall lifeboats), all rescue boats (including inflated rescue boats and fast rescue boats)~~and fast rescue boats~~; and
- 2) launching appliances and on-load and off-load release gear for lifeboats (including primary and secondary means of launching appliances for free-fall lifeboats), rescue boats, fast rescue boats and davit-launched liferafts.

The contents of this Appendix apply equally to manufacturers or ship's operator when they are acting as Service Suppliers.

N.2 LICENCE

Any Service Supplier engaged in maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear carried out in accordance with SOLAS regulation III/20 is to be approved for these operations for each make and type of equipment for which they provide the service, in accordance with an established system for training and authorization in accordance with IMO Resolution MSC.402(96)/Corr.1 (annex, section 7).

Such approval is to include, as a minimum:

- employment and documentation of personnel certified in accordance with a recognized national, international or industry standard as applicable, or an equipment manufacturer's established certification program. In either case, the certification program is to be based on the paragraph N.3 for each make and type of equipment for which service is to be provided; and,
- compliance with provisions of paragraphs N.4, N.5 and N.6.

In cases where an equipment manufacturer is no longer in business or no longer provides technical support, Service Suppliers may be approved for the equipment on the basis of prior approval for the equipment and/or long term experience, at least 4 years and demonstrated expertise as an authorized service provider.

N.3 CERTIFICATION OF PERSONNEL

- a) Personnel for the work specified in N.1 is to be certified by the manufacturer or the Service Supplier for each make and type of the equipment to be worked on. Approved Service Supplier is allowed to certify its own personnel (i.e. employed by the same service supplier) only.
- b) The education for initial certification of personnel is to be documented and address, as a minimum:

- Causes of lifeboat and rescue boat accidents
- Relevant rules and regulations, including International Conventions
- Design and construction of lifeboats, (including free-fall lifeboats), rescue boats and fast rescue boats, including on-load release gear and launching appliances
- Education and practical training in the procedures specified in section 6 of the Annex to IMO Resolution MSC.402(96)/Corr.1 for which certification is sought
- Detailed procedures for thorough examination, operational testing, repair and overhaul of lifeboats (including free-fall lifeboats), rescue boats and fast rescue boats, launching appliances and on-load release gear, as applicable;
- Procedures for issuing a report of service and statement of fitness for purpose based on IMO Resolution MSC.402(96)/Corr.1 (annex, paragraph 5.3); and
- Work, health and safety issues while conducting activities on board.

The training for the personnel is to include practical technical training on thorough examination, operational testing, maintenance, repair and overhaul techniques using the equipment for which the personnel are to be certified. The technical training is to include disassembly, reassembly, correct operation and adjustment of the equipment. Classroom training is to be supplemented by field experience in the operations for which certification is sought, under the supervision of certified person.

Prior to issuance of personnel certification, a competency assessment is to be satisfactorily completed, using the equipment for which the personnel are to be certified.

Upon completion of training and competency assessment, a certificate is to be issued defining the level of qualification and the scope of the certification (i.e. makes and types of equipment and specifically state which activities (annual thorough examination and operational tests; 5-year thorough examination, overhaul; overload operational tests; repairs) are covered by the certification). The expiry date is to clearly be written on the certificate and is to be three years from the date of issue. The validity of any certificate is to be suspended in the event of any shortfall in performance and only revalidated after a further competency assessment.

A competency assessment is to be conducted to renew the certification. In cases where refresher training is found necessary a further assessment is to be carried out after completion.

Appendix O - Firms engaged in measurements of noise level onboard ships

O.1 EXTENT OF ENGAGEMENT

This appendix contains additional specific requirements for the issue of the qualification certificate of suppliers engaged in sound pressure level measurements onboard ship.

O.2 QUALIFICATIONS AND TRAINING

O.2.1 Supervisor

The supervisor is to have a minimum of 2 years of experience as an operator in sound pressure level measurements.

O.2.2 Operators

The operator is to have the following qualifications:

- a) Knowledge in the field of noise, sound measurements and handling of measurement equipment
- b) Adequate knowledge of the applicable international requirements (SOLAS Regulation II-1/3-12, as amended, and IMO Code on noise levels onboard Ships, as amended)
- c) At least 1 year's experience, including participation in a minimum of 5 measurement campaigns as an assistant operator
- d) Training concerning the procedures specified in IMO Code on Noise Levels onboard ships
- e) Be able to document theoretical and practical training onboard in using a sound level meter.

O.3 EQUIPMENT

O.3.1 Sound level meters

Measurement of sound pressure levels is to be carried out using precision integrating sound level meters. Such meters are to be manufactured according to IEC 61672-1(2002-05)¹, as amended, type/class 1 standard as applicable, or to an equivalent standard acceptable to the Administration².

O.3.2 Octave filter set

When used alone, or in conjunction with a sound level meter, as appropriate, an octave filter set is to conform to IEC 61260 (1995)³, as amended, or an equivalent standard acceptable to the Administration.

O.3.3 Sound Calibrator

Sound calibrators are to comply with the standard IEC 60942 (2003-01), as amended, and are to be approved by the manufacturer of the sound level meter used.

O.3.4 Calibration

Sound Calibrator and sound level meter are to be verified at least every two years by a national Standard laboratory or a competent laboratory accredited according to ISO/IEC 17025:2017-(2005), as amended. A record with a complete description of the equipment used is to be kept, including a calibration log.

O.3.5 Microphone wind screen

A microphone wind screen is to be used when taking readings outside, e.g. on navigating bridge wings or on deck, and below deck where there is any substantial air movement. The wind screen is not to affect the measurement level of similar sounds by more than 0.5 dB(A) in "no wind" conditions.

O.4 PROCEDURES AND INSTRUCTIONS

The supplier is to have documented procedures and instructions to carry out service of the equipment.

Documented work procedures are at least to contain information on survey preparation, selection and identification of sound level measurement locations, calibration checks and report preparation.

O.5 REFERENCE DOCUMENTS

The supplier is to have access to the following documents:

- a) SOLAS 1988, as amended (Reg.II-1/3-12)
- b) Resolution A.468(XII) and IMO Resolution MSC.337(91) code on noise levels on board ships
- c) Resolution A.343(IX) Recommendation on methods of measuring noise levels at listening posts
- d) The Tasneef Rules and Guidelines as applicable.

O.6 REPORTING

A noise survey report is to be made for each ship. The report is to comprise information on the noise levels in the various spaces on board. The report is to show the reading at each specified measuring point. The points are to be marked on a general arrangement plan, or on accommodation drawings attached to the report, or are to otherwise be identified.

The format for noise survey reports is set out in appendix 1 of IMO Code on Noise Levels onboard Ships and is to conform to any other specific Tasneef requirement, as applicable (refer to IMO circular MSC.337(91)).

¹ Recommendation for sound level meters

² Sound level meters class/type 1 manufactured according to IEC 651/IEC 804 may be used until 1 July 2016

³ Octave-band and fractional-octave-band filters

Appendix S - Firms engaged in Commissioning Testing of Ballast Water Management Systems (BWMS)

S.1 EXTENT OF ENGAGEMENT

This appendix contains specific requirements for the Sampling and Analysis of ballast water and Verification of the self-monitoring equipment during Commissioning Testing of Ballast Water Management Systems (BWMS), for Statutory purposes.

S.2 PROCEDURE

S.2.1 Service suppliers

Service suppliers are to have documented procedures including:

- Procedures for sampling collection and handling, analysis, assessment of BWMS correct operations and documenting and reporting. The procedures are to outline how the ballast water sampling and analysis is conducted with respect to each size class of organisms;
- Operating procedures for the ballast water test equipment specified including calibration, adjustment and maintenance.

S.2.1.1

Service Suppliers are to be familiar with the BWMS operation including features and limits of each treatment technology, and self-monitoring parameters.

~~**S.2.1.2**~~

~~Service Suppliers are to be accredited to relevant standards such as ISO/IEC 17025 or equivalent, as applicable.~~

~~**S.2.1.3**~~ **S.2.1.2**

Service Suppliers are to be independent of the BWMS manufacturer or supplier including shipyards.

S.3 OPERATORS

S.3.1

Service suppliers are expected to be able to perform both the biological sampling and assessment of self-monitoring parameters and has responsibility for document that the requirements to the operator are satisfied. Therefore, operators who conduct commissioning testing are to:

- demonstrate knowledge in the use of different ballast water testing equipment for the purpose of assessing biological efficacy;
- have documented evidence of sufficient engineering and biological knowledge to conduct the commissioning testing;
- have knowledge of IMO BWM.2/Circ.70/Rev.1, as may be amended - 'Guidance for the Commissioning Testing of Ballast Water Management Systems' and IMO BWM.2/Circ.42/Rev.2 - 'Guidance on Ballast Water

Sampling and Analysis for Trial Use in accordance with the BWM Convention and Guidelines (G2)', as may be amended;

- (*) be trained in the proper use of portable indicative analysis equipment. Review of training records and/or interviews should be conducted to confirm the equipment will be properly used during testing;
- [\(*\) be trained in the proper use of detailed analysis methods and equipment in case the Service Supplier offers detailed analysis. Review of training records and/or interviews should be conducted to confirm the equipment will be properly used during testing;](#)
- (*) be familiar with and understand the design concepts of the Guidelines G2 sampling devices installed on the vessel's water ballast system. Personnel is to understand the need to maintain the G2 sampling devices clean and free of contaminants and the importance of controlling the ballast water sample flow rates from the G2 device (to avoid organism mortality in the sample);
- (*) be familiar with the technologies utilized by the indicative sampling equipment and understand water quality issues that are both conducive to successful use of the equipment and circumstances that could challenge the use of the equipment;
- (*) be trained in the proper disposal procedures for water samples following testing.
- (Δ) have knowledge of the system design limitations of the BWMS (as stated in the BWMS type approval certificate) and knowledge of the BWMS self-monitoring parameters, such as flow rate, pressure, TRO concentration, UV transmittance/intensity, etc, and how the BWMS notifies the operator in case he operates BWMS outside its system design limitations. This knowledge is relevant for evaluating whether the selfmonitoring equipment of the BWMS indicates correct operation of the BWMS. In case Service Supplier are not present during ballasting operations, the Service Supplier is to have knowledge of how to access the BWMS log to evaluate that the BWMS operated correctly during ballasting operations;
- (Δ) have the procedures and knowledge to be able to assess the applicable selfmonitoring parameters (e.g., flow rate, pressure, TRO, UV intensity, etc.) of the BWMS, taking into account the System Design Limitations of the BWMS;

Notes:

- (1) the points marked with (*) are qualifications for operators performing sampling and analysis of ballast water
- (2) the points marked with (Δ) are the qualifications for operators performing verification of the self-monitoring equipment
- (3) the points above without symbol are the common qualifications for service supplier.

Appendix S - Firms engaged in Commissioning Testing of Ballast Water Management Systems (BWMS)

S.4 EQUIPMENT AND FACILITIES

S.4.1

Equipment, procedures and methods for detailed analysis, where applicable, are to be in accordance with relevant International standard and/or Industry standards accepted by the Society.

~~Laboratories conducting sample enumeration are to be accredited to ISO/IEC 17025 standard, or equivalent.~~

S.4.2

Testing is to be conducted using indicative analysis equipment accepted by the Society.

Information and reference to the acceptance documents for the equipment used is to be submitted to the Society in the report which includes the results from the commissioning test as per IMO BWM.2/Circ.70/Rev.1, as may be amended. In case the indicative analysis equipment used has not been previously accepted by the Society, the following information is to be submitted to the Society:

- Equipment information - type, model, technology used, evidence of calibration, detection range, Organism type/size classes that can be analyzed.
- Test results conduct for the verification of accuracy, detection range and repeatability.
- Certificate of standards, if available.

S.4.3

For indicative analysis equipment planned to be used, the equipment OEM instruction manuals are to be available. The manuals are to include, at least, clear guidance for the proper storage, handling, operation, maintenance, repair, and calibration.

Note:

Each Service Supplier applicant will present the Surveyor their confidential internal procedures for conducting the indicative testing. Not all the equipment listed in the references will be used. For all equipment planned to be used, the instruction manuals are to be available.

The Service Supplier will need to use specialty devices (e.g., sieves, screens, etc.) to separate the different organism sizes classes (i.e., $\geq 10 \mu\text{m}$ to $< 50 \mu\text{m}$, and $\geq 50 \mu\text{m}$, and indicator microbes) to support analysis of each size class.

S.4.4

Equipment used for the analysis of other physical-chemical water parameters is to be suitable for the intended use.

S.4.5

Indicative analysis equipment should be properly stored or transported to avoid damage and disturbance to

calibrations, etc. when transporting from the Service Suppliers facilities to the vessels.

S.5 SAMPLING AND ANALYSIS

S.5.1

Service Suppliers are to follow relevant guidelines on sampling of ballast water. A standard operating procedure is to be defined for sampling of uptake water. Discharge sampling is to follow the IMO's 'Guidelines for Ballast Water Sampling (G2)'.

S.5.2

The representative samples are to be analyzed as a minimum for the two size classes of organisms, namely $\geq 50 \mu\text{m}$ and $\geq 10 \mu\text{m}$ to $< 50 \mu\text{m}$, specified in IMO Circular BWM.2/Circ.70/Rev.1 - Guidance for the Commissioning Testing of Ballast Water Management Systems using indicative analysis methods. Detailed analysis of all organism type/size classes or combination of detail and indicative analysis can also be performed.

S.5.3

Service Suppliers are to maintain a record of:

- Operation of the BWMS during test period, including any recorded data or operator observations associated with the performance deviations, alarms or abnormal/unexpected operations.
- Applicable self-monitoring parameters.

S.5.4

In case the commissioning testing requires the Service Supplier's personnel to work in hazardous areas (e.g., pump room for tankers, etc.), the Service Supplier is to ~~either~~ have equipment certified for use in such the spaces ~~or provide the Surveyor with a list of vessels for which they would not be able to conduct testing.~~

S.6 REPORTING

S.6.1

Service Suppliers are to provide reports detailing the results of sampling and analysis of ballast water and assessment of self-monitoring parameters during commissioning testing. The format is to be acceptable to the Society. The report, as a minimum, will contain the following:

- Manufacturer's name
- Model name
- BWMS Technology limiting operating conditions and system design limitations
- BWMS treatment mode of operation, e.g., high power, low power, single pass, IMO mode, USCG

Appendix S - Firms engaged in Commissioning Testing of Ballast Water Management Systems (BWMS)

~~Mode of operation required, e.g., ballasting, de-ballast, circulation, one pass, in tank, etc~~

- Treatment rated capacity (TRC) in m³/h
- Relevant performance parameters (e.g. TRO, UV dose, UVI, flow rate or other relevant performance parameter)
- Alarms developed during operation
- ~~Installation location~~
- Type Approval issued by and Certificate No
- ~~Date installed~~
- Results of Sample analysis
- Pump and ballast tanks used for the commissioning test, including the flow rates, ballast tanks and volumes of the ballasting and deballasting operations
- Comments/Options: Filter and other major components, Process measurements.

S.7 REFERENCE DOCUMENTS

S.7.1

The Service Supplier is to have access to the following documents, as may be amended:

- IMO Resolution MEPC.300(72) — Code for Approval of Ballast Water Management Systems (BWMS Code)
- IMO Resolution MEPC.173(58) — Guidelines for Ballast Water Sampling (G2)
- IMO Circular BWM.2/Circ.42/Rev. 2 — Guidance on Ballast Water Sampling and Analysis for Trial Use in accordance with the BWM Convention and Guidelines (G2)
- IMO Circular BWM.2/Circ.70/Rev.1 - Guidance for the Commissioning Testing of Ballast Water Management Systems
- IMO Circular BWM.2/Circ.61 - Guidance on Methodologies that may be used for Enumerating Viable Organisms for Type Approval of Ballast Water Management Systems
- IMO Circular BWM.2/Circ.69 - Guidance on System Design Limitations of Ballast Water Management Systems and their Monitoring
- ~~IMO Resolution MEPC.279(70) — 2016 Guidelines for Approval of Ballast Water Management Systems (G8)~~
- IMO Resolution A.112056(302) — Survey Guidelines under the Harmonized System of Survey and Certifications (HSSC), as amended 2017 (for BWMS that were Type Approved to the 2016 G8).

Annex 2 - Firms engaged in surveys of masts and rigging of sailing ships (Riggers)

1 EXTENT OF ENGAGEMENT

1.1 This Annex contains additional specific requirements for the certification of Firms engaged, with their own qualified operators, in surveys of masts and rigging of sailing ships (also referred to as 'Rigger'). Surveys and inspections cover the following items:

- 1) Mast & Boom (spreaders and appendices, tube, fittings and hardware)
- 2) Rig & Foil (stays, chainplates, tangs, foil tubes, fittings, etc.)
- 3) Cables and Cordage (running rigging, halyards & sheets, mooring lines, lashings and loop)
- 4) Deck hardware (pulleys, blocks, shackles, deflectors, etc.)
- 5) Winches and furlers (deck and/or captive winches, furlers)
- 6) Vang and rams.

1.2 The Rigger's activities do not include carpentry work, repairs of electrical equipment and piping for pneumatic or hydraulic pressure systems. Certification of Service Suppliers acting as Riggers includes only the operations performed on board or in a special area near the hull. Operations which include special processes to be carried out in external workshops are out of the scope of this certification.

1.3 The Supplier (Rigger) can be involved in the following processes/checks:

- Rig visual check
- Rig tune
 - Dock tune procedure
 - Fine tuning procedure
 - Check and set of tuning
- Full rig service
 - Unstepping/undressing
 - Service in loco
 - Dressing/stepping
 - Tuning
 - Sail sea trial
- Cable and cordage check and service
- Deck hardware check and service
- Winches, furler systems and machinery check and service
- Sails removing/installation on board.

2 QUALIFICATION REQUIRED

2.1 The Supplier is to demonstrate proven experience in the field of Rigging, regarding Aluminum/Carbon Mast & Boom, Rod/Synthetic fibers/Carbon Rig & Cables, Synthetic fibers Cordage.

2.2 The Rigger operators employed by the Firm are to have sufficient basic knowledge of Rig layouts and structures. The Firm is to have in operation a written procedure for each process/checks mentioned in [1.3] for each the item in [1.1] of this Annex.

2.3 The Rigger operators employed by the Firm are to

demonstrate a proper certificate of capability to work safety at high altitude on the rig.

The Firm is to have in operation a written procedure for safety access to the Mast top and to safety escape in case of emergency.

The Supplier is responsible for the qualification of its operators.

2.4 In case of service at the Mast, Rig and deck hardware, the Supplier is to prove its ability to manage the job and the materials by:

- a) Manufacturer's authorization and/or evidence of attendance to manufacturer's training courses
- b) Manufacturer's instructions
- c) Proven experience in the sector (at least 2 years).

2.5 The Service Supplier is to have access to the following documents as necessary:

- a) Manufacturers' servicing manual, servicing bulletins, instructions and training manuals, as appropriate
- b) Flag or Class certification and instructions
- c) Type Approval certificates showing any conditions which may be appropriate during the servicing and/or maintenance of items
- d) General logbook for servicing and maintenance.

3 OPERATOR AND SUPERVISOR

3.1 The number of the operators involved in the activities is left to the experience of the Supplier. It is to be in accordance with the procedures declared in [2.2] of this Annex. In every case, the Supplier is to ensure the safety of its operators.

In case of work at height, at least two persons are required, the operator on the rig ('Rigger') and the supervisor on deck ('Senior Rigger').

The following qualification levels are foreseen:

- a) Senior Rigger – formally the man in charge for the job and the reference for the Client and the Surveyor (at least 2 years of experience as Rigger)
- b) Rigger – the operator able to climb on the mast and able to manage the Junior Rigger (at least 2 years of experience as Junior Rigger)
- c) Junior Rigger – the operator with less than 24 months of experience; he cannot be involved in works at height.

3.2 The Senior Rigger is also the Supervisor. He is responsible for the work performed by the operators and his presence during the activities is always required. Eventually absence is to be discussed with the Surveyor and approved.

3.3 The Operator is to be able to:

- a) Senior Rigger – correctly use the equipment, with particular attention to the safety equipment and audio communication
- b) Senior Rigger and Rigger – easily operate in tandem with the Surveyor attending on the deck (when his presence is required), in particular using audiovisual communication

Annex 2 - Firms engaged in surveys of masts and rigging of sailing ships (Riggers)

- c) Senior Rigger and Rigger – easily perform on the Rig those checks and examinations foreseen for the type of survey and check concerned by the approved manual operation
- d) Senior Rigger and Rigger – clearly and fully describe the findings of the checks carried out and draft the relevant report, integrating it where necessary with sketches complete with dimensions.

3.4 The Supplier is to make available to their operators all the necessary equipment and provide any assistance required. The Supplier is fully responsible for the equipment utilised during the survey.

3.5 Tasneef reserves the right to review the approved operating procedure in case of particular cases or working conditions. During the survey the Operators are to follow the instructions and perform the checks required by Tasneef.

3.6 The Supplier is to have documented operational procedures and guidelines on how to carry out the survey and how to handle the equipment. These are to include:

- a) two-way communication between operator and deck
- b) video recording or camera
- c) guidance of the operator along the Rig to provide complete coverage of the parts to be surveyed
- d) safety instruction guideline.

4 REPORT

4.1 The Supplier is to report on the supplied service as per [2.2.11].

4.2 The Supplier is to have the Surveyor's verification of each separate job documented in the report by the attending Surveyor(s) signature.

4.3 At classification surveys the Supplier is to provide all necessary facilities and assistance, if any. The Supplier is responsible for drafting the relevant report complete with all necessary information to the satisfaction of the Surveyor in charge.

4.4 The accuracy of the findings of the examinations is the responsibility of the Supplier and the Senior Rigger.