



RULES CHANGE NOTICE No.2
Part 1 Seagoing Ships

**RULES FOR APPROVAL OF
MANUFACTURERS AND SERVICE
SUPPLIERS**

Volume XI

April 2023

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Foreword

This Rules Change Notices (RCN) No. 2 provide amendment and corrigenda to the [Rules for Approval of Manufacturers and Service Suppliers 2022 Consolidated Edition](#) along with effective date from which these changes are applicable. The amendments in this RCN refer to IACS UR Z17 Rev.17 and Rev.18.

Amendments to the preceding edition are marked by strikethrough, red color, and expanded text. These new additions and amendments are to be read in conjunction with the requirements given in RCN No.1 and the 2022 consolidated edition of the Rules.

The summary of current amendments for each section including the implementation date are indicated in ***Table 1 - Amendments Incorporates in This Notice.***

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Any queries or comments concerning these Rules are welcomed through communication with BKI Head Office.

Rules Changes Notice No. 2 – April 2023

Table 1 – Amendments Incorporates in This Notice

These amendments come into force on 1st July 2023

Paragraph	Title/Subject	Status/Remark
A	General	
A.1.1.1	–	Inflatable rescue boats deleted from the scope of service supplier no 1)
A.2.9.1	–	Replaced paragraph number of reference
A.5.2.2.2	–	Replaced demonstration requirements for service suppliers who have been approved by other class. society acc. to IACS UR Z17 Rev.17
B	Firms Engaged in Thickness Measurements on Ships	
B.7.1	–	Added precondition when a demonstration necessary to be done
B.7.3	–	Deleted
B.7.4	–	Deleted
C	Firms Carrying Out an In-Water Survey of Ships and Mobile Offshore Units by Diver or Remotely Operated Vehicle (ROV)	
C.6.1		Added precondition when a demonstration need to be done
C.6.3		Deleted
D	Firms Engaged in Inspections and Testing of Radio Communication Equipment	
D.5.1	–	Added precondition when a demonstration necessary to be done
D.5.2	–	Deleted
D.5.3	–	Deleted
E	Firms Engaged in Annual Performance Testing of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR)	
E.8.1	–	Added precondition when a demonstration necessary to be done
E.8.2	–	Deleted
E.8.3	–	Deleted
G	Firms Engaged in Inspections and Maintenance of Fire Extinguishing Equipment and Systems	
G.5.1.1	–	Aligned with IACS UR Z17 Rev.17
G.7.1	–	Added precondition when a demonstration necessary to be done
G.7.2	–	Deleted
G.7.3	–	Deleted
H	Firms Engaged in Services of Inflatable Liferafts, Inflatable Lifejackets, Hydrostatic Release Units, Marine Evacuation Systems	
H.1.1	–	Aligned with IACS UR Z17 Rev.17
H.6.1	–	Added prerequisites for demonstrations to be performed
H.6.2	–	Deleted
H.6.3	–	Deleted
I	Firms Engaged in Tightness Testing of Hatches with Ultrasonic Equipment	
I.5.1	–	Added prerequisites for demonstrations to be performed

Paragraph	Title/Subject	Status/Remark
I.5.2	–	Deleted
I.5.3	–	Deleted
J	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	
J.7.1	–	Added prerequisites for demonstrations to be performed
J.7.2	–	Deleted
J.7.3	–	Deleted
K	Firms Engaged in Maintenance, Thorough Examination, Operational Testing, Overhaul and Repair of Lifeboats and Rescue Boats, Launching Appliances, and Release Hooks	
K.1	Extent of engagement	Added the type of rescue boat that is covered
K.7.1	–	Added prerequisites for demonstrations to be performed
K.7.2	–	Deleted
K.7.3	–	Deleted
L	Firms Engaged in Inspections and Maintenance of Self Contained Breathing Apparatus	
L.6.1	–	Added prerequisites for demonstrations to be performed
L.6.2	–	Deleted
L.6.3	–	Deleted
M	Firms Engaged in Examination of RO-RO Ships Bow, Stern, Side and Inner Doors	
M.5.1	–	Added prerequisites for demonstrations to be performed
M.5.2	–	Deleted
M.5.3	–	Deleted
N	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	
N.7.1	–	Added prerequisites for demonstrations to be performed
N.7.2	–	Deleted
N.7.3	–	Deleted
O	Firms Engaged in Sound Pressure Level Measurements of Public Address and General Alarm Systems on Board Ships	
O.7.1	–	Added prerequisites for demonstrations to be performed
O.7.2	–	Deleted
O.7.3	–	Deleted
P	Firms Engaged in Measurements of Noise Level Onboard Ships	
P.4.3	Sound Calibrator	Revised the standard and its year of edition acc. To IACS UR Z17 Rev.18
Q	Firms Engaged in Tightness Testing of Primary and Secondary Barriers of Gas Carriers with Membrane Cargo Containment Systems for Vessels in Service	
Q.5.1	–	Added prerequisites for demonstrations to be performed
Q.5.2	–	Deleted
Q.5.3	–	Deleted
S	Firms Engaged in Non-Destructive Testing (NDT)	
S.12.1	–	Added prerequisites for demonstrations to be performed
S.12.2	–	Deleted
S.12.3	–	Deleted

Paragraph	Title/Subject	Status/Remark
V	Firms Engaged in Commissioning Testing of Ballast Water Management Systems (BWMS)	
V.2.2	–	Deleted (IACS UR Z17 Rev.18)
V.2.3	–	Renumbered to V.2.2
V.4.1.1	–	Added new requirement regarding training that operators must follow when the service supplier offers detailed analysis (IACS UR Z17 Rev.17)
V.4.1.3	–	Deleted IMO Res. MEPC 279(70) and updated Res. A.1120(30) to Res. A.1156(32) (IACS UR Z17 Rev.17)
V.5.1	–	Deleted laboratories requirement (IACS UR Z17 Rev.18)
V.6.4	–	Deleted one of requirements to work in hazardous areas (IACS UR Z17 Rev.17)
V.7	Reporting	Deleted and added some items to be provided in the report acc. to IACS UR Z17 Rev.18

Section 3 Requirements for Approval of Service Suppliers

A. General

1. Application

1.1 This Section applies to the approval of the following categories of service suppliers listed as follows:

(IACS UR Z17 4.1)

1.1.1 Statutory services:

- 1) Firms engaged in servicing inflatable liferafts, inflatable lifejackets, hydrostatic release units, ~~inflatable rescue boats~~, marine evacuation systems
- 2) Firms engaged in servicing and testing of radio communication equipment on ships
- 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)

(IACS UR Z17 4.1.1)

----- end -----

2. General requirements

2.9 Subcontractors

2.9.1 The supplier shall give information of agreements and arrangements if any parts of the services provided are subcontracted. Particular emphasis shall be given to quality management by the supplier in following-up such subcontracts. Subcontractors providing the services of the approved service supplier shall also meet the requirements of [A](#).

(IACS UR Z17 ~~5.3~~ [5.2.9](#))

2.9.2 Ordering documents are to contain data clearly necessary for the subcontracting.

2.9.3 The supplier's management is to establish and maintain a documented procedure for implementing the subcontracting control specified in [2.9.1](#) and the order specified in [2.9.2](#).

----- end -----

5. Procedure for approval and certification

5.2 Initial assesment

In initial assessment, a service supplier to be assessed by BKI, based upon the results of document examination and field examination as specified for in the following:

5.2.1 Document examination

.1 Service suppliers intended to be approved under these Rules are to submit three copies each of the following documents to BKI for the document examination. The documents may also be submitted in electronic version (soft copy).

- 1) Outline of the firms intended to be approved (e.g. location, history, organisation and management structure, including subsidiaries to be included in the approval/certification, number of employees, main services and their actual records, etc.)
- 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 authorization from manufacturers, manufacturer's documentary evidence that the Service Supplier has been authorized or licensed to service the particular makes and models of equipment for which approval is sought shall be provided.
- 5) List of operators/technicians/inspectors documenting name, training and experience within the relevant service area, qualifications according to recognised national, international or industry standards, as relevant,
- 6) Training programmes for operators/technicians/inspectors
- 7) Description of equipment used for the particular service for which approval is sought (measuring equipment, outline of workshops and facilities for storing materials and parts, a list of orders to the subcontractors, etc.)
- 8) A guide for operators of such equipment
- 9) Outline (including description of service conditions or service regions) of the relevant service
- 10) Quality manual and its supplementary documents, or documented procedures (work procedures, verification procedures, recording and reporting procedures, training procedures, control procedures of measuring equipment, etc.)
- 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) Checklists of the relevant services and reporting formats to BKI
- 13) Copies of approval certificates issued by competent organizations or other classification societies, if any.
- 14) Information on the other activities which may present a conflict of interest.
- 15) Record of customer claims and of corrective actions requested by certification bodies
- 16) Operators/technicians/inspectors documentation that they have acknowledged the code of conduct
- 17) Other documents deemed necessary by the BKI.

(IACS UR Z17 5.1.1)

.2 In the document examination, the documents submitted under the requirement in .1 above are reviewed to confirm that the documented quality system is in conformity with the Rules.

5.2.2 Field audit

.1 Upon reviewing the submitted documents with satisfactory result, the supplier is audited in order to ascertain that the supplier is duly organised and managed in accordance with the submitted documents, and that it is considered capable of conducting the services for which approval/certification is sought.

(IACS UR Z17 5.3)

.2 Demonstrations of the service performances intended to be approved are to be carried out with satisfactory **results reporting**. ~~In case where~~ **At initial assesment, when** the supplier has been approved by other classification societies, ~~a part of or the whole of the demonstration may be dispensed with.~~ **according to IACS UR Z17, this may be verified through documentary review that a practical demonstration has already been carried out. At renewal assesment, verification by documentary review of jobs undertaken since the previous assesment and that have been accepted by BKI is acceptable and is sufficient to satisfy this requirement.**

(IACS UR Z17 5.4)

----- end -----

B. Firms Engaged in Thickness Measurements on Ships

7. Demonstration

7.1 Unless a documentary review can not be carried out as specified in A.5.2.2.2, On board practical demonstration on actual ships is to shall be carried out at the presence of BKI's Surveyor to verify that the supplier provides thickness measurements specified in the documents submitted. The ship used for the demonstration is preferably to be a large sized tanker, a bulk carrier or an ore carrier.

7.2 Structural members to be measured are directed by BKI's surveyor at the demonstration in order to ascertain that the operators and the supervisors have sufficient knowledge about the structural members. The surveyor may ask some questions in damages of typical ships to ascertain that the operators and supervisors have sufficient knowledge about the damage.

~~**7.3** In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.~~

~~**7.4** For renewal assessment, demonstration may be dispensed with if the service supplier can provide the inspection reports carried out in the last six (6) months before expired date of the certificate.~~

----- end -----

C. Firms Carrying Out an In-Water Survey of Ships and Mobile Offshore Units by Diver or Remotely Operated Vehicle (ROV)

6. Demonstration

6.1 Unless a documentary review can not be carried out as specified in A.5.2.2.2, practical Demonstration to the actual ship ~~is to~~ **shall** be carried out at the presence of BKI's Surveyor to verify that the supplier provides In-Water survey specified in the documents submitted.

6.2 Where other means e.g. video tapes, which enable BKI to verify the In-Water survey operation of the supplier in lieu of the demonstration, are available, the demonstration may be dispensed with.

~~6.3~~ For renewal assessment, demonstration may be dispensed with if the service supplier can provide the inspection reports carried out in the last six (6) months before expired date of the certificate.

----- end -----

D. Firms Engaged in Inspections and Testing of Radio Communication Equipment

5. Demonstration

5.1 Unless a documentary review can not be carried out as specified in A.5.2.2.2, on board demonstration ~~is to~~ shall be carried out at the presence of BKI's Surveyor to verify that the supplier provides radio inspections specified in the documents submitted.

~~5.2~~ In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.

~~5.3~~ For renewal assessment, demonstration may be dispensed with if the service supplier can provide the inspection reports carried out in the last six (6) months before expired date of the certificate.

----- end -----

E. Firms Engaged in Annual Performance Testing of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR)

8. Demonstration

8.1 Unless a documentary review can not be carried out as specified in A.5.2.2.2, on board demonstration ~~is to~~ shall be carried out in the presence of BKI's Surveyor to verify that the supplier has appropriate competence for the performance tests specified in the documents submitted.

~~8.2~~ In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.

~~8.3~~ For renewal assessment, demonstration may be dispensed with if the service supplier can provide the inspection reports carried out in the last six (6) months before expired date of the certificate.

----- end -----

G. Firms Engaged in Inspections and Maintenance of Fire Extinguishing Equipment and Systems

5. Operators and Supervisors

5.1 Training

5.1.1 Operators and supervisors carrying out the services of firefighting equipment and systems are to have sufficient knowledge as to the following 1) through ~~16)~~ 15).

- 1) Construction and services of firefighting equipment and systems
- 2) Operational methods of the equipment used for servicing of firefighting equipment and systems
- 3) The latest version of the International Convention for the Safety of Life at Sea (SOLAS), as amended, and International Maritime Organization (IMO) Maritime Safety Committee Circular 850
- 4) Flag Administration requirements
- 5) The requirements and inspection instructions for firefighting equipment and systems issued by Administration
- 6) Manufacturer's servicing manuals, servicing bulletins, instructions and training manuals, as appropriate
- 7) Type Approval certificates showing any conditions that may be appropriate during the servicing and/or maintenance of fire-extinguishing equipment and systems
- 8) 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
- 9) MSC/Circ.670 (Guidelines for the Performance and Testing Criteria and Surveys of High Expansion Foam Concentrates for fixed Fire-Extinguishing Systems)
- 10) MSC/Circ.798 (Guidelines for the Performance and Testing Criteria and Surveys of Medium Expansion Foam Concentrates for fixed Fire-Extinguishing Systems)
- ~~11) MSC/Circ.799 ((Guidelines for the Performance and Testing Criteria and Surveys of Expansion Foam Concentrates for fixed Fire-Extinguishing Systems of Chemical Tankers)~~
- ~~12)~~ 11) 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)
- ~~13)~~ 12) MSC.1/Circ.1432 (Revised Guidelines for the maintenance and Inspection of Fire Protection Systems and Appliances, as amended by MSC.1/Circ.1516)
- ~~14)~~ 13) IMO Res. A. 951(23) – Improved guidelines for marine portable fire extinguishers
- ~~15)~~ 14) MSC.1/Circ.1370 – Guidelines for the design, construction and testing of fixed hydrocarbon gas detection systems
- ~~16)~~ 15) Guidelines adopted by IMO for fire extinguishing equipment and systems specifically intended for service by service suppliers

----- end -----

7. Demonstration

7.1 Unless a documentary review can not be carried out as specified in A.5.2.2.2, On board practical demonstration is to shall be carried out in the presence of BKI's Surveyor to verify that the suppliers have appropriate competence for the services of firefighting equipment and systems. However, as for the firefighting equipment and systems, which are difficult to carry out the demonstration, the submission of the service record certificates may be accepted as substitution.

~~7.2~~ In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.

~~7.3~~ For renewal assessment, demonstration may be dispensed with if the service supplier can provide the inspection reports carried out in the last six (6) months before expired date of the certificate.

----- end -----

H. Firms Engaged in Services of Inflatable Liferafts, Inflatable Lifejackets, Hydrostatic Release Units, ~~Inflatable Rescue Boats~~, Marine Evacuation Systems

1. Extent of engagement

1.1 Servicing of inflatable liferafts, inflatable lifejackets, hydrostatic release units ~~and/or inflatable rescue boats~~.

1.2 Servicing of marine evacuation systems.

----- end -----

4. Operators and supervisors

4.1 Training

4.1.1 Operators and supervisors carrying out services of life-saving appliances are to have sufficient knowledge as to the following 4.1.1.1) through 4.1.1.11).

- 1) Construction and services of life-saving appliances.
- 2) Operational methods of the equipment used for services of life-saving appliances.
- 3) The latest version of the International Convention for the Safety of Life at Sea (SOLAS), as amended, Life-Saving Appliances Code (LSA Code) and International Maritime Organization (IMO) Resolution Assembly 761(18).
- 4) Flag Administration requirements (where required)
- 5) The requirements and inspection instructions for life-saving appliances issued by Administration.
- 6) IMO - Resolution A.761(18) - Recommendation on Conditions for the Approval of Servicing Stations for Inflatable Liferafts - (adopted on 4 November 1993), amended by Resolution MSC.55(66)
- 7) IMO - Resolution MSC.55(66)
- 8) IMO – MSC.1/Circ.1328 – Guidelines for the Approval of Inflatable Liferafts Subject to Extended Service Intervals Not Exceeding 30 Months
- 9) Manufacturer’s servicing manuals, servicing bulletins, instructions and training manuals, as appropriate
- 10) 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
- 11) LSA code/Chap.IV, 1995 SOLAS Conference Resolution 4 regarding marine evacuation systems

4.1.2 A documented training procedures required in A.2.2 are to contain the procedures to learn the knowledge specified in 4.1.1. And the supplier is to provide latest reference documents.

----- end -----

6. Demonstration

6.1 ~~Unless a documentary review can not be carried out as specified in A.5.2.2.2, On board~~ **practical** demonstration ~~is to~~ **shall** be carried out in the presence of BKI's Surveyor to verify that the suppliers have appropriate competence for the services of life-saving appliances. However, as for the life-saving appliances, which are difficult to carry out the demonstration, the submission of the service record certificates may be accepted as substitution.

~~**6.2** In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.~~

~~**6.3** For renewal assessment, demonstration may be dispensed with if the service supplier can provide the inspection reports carried out in the last six (6) months before expired date of the certificate.~~

----- end -----

I. Firms Engaged in Tightness Testing of Hatches with Ultrasonic Equipment

5. Demonstration

5.1 ~~Unless a documentary review can not be carried out as specified in A.5.2.2.2, On board~~ **practical** demonstration ~~on actual ships is to~~ **shall** be carried out in the presence of BKI's Surveyor to verify that the suppliers have appropriate competence for the tightness testing of hatches with ultrasonic equipment listed in the documents submitted.

~~**5.2** In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.~~

~~**5.3** For renewal assessment, demonstration may be dispensed with if the service supplier can provide the inspection reports carried out in the last six (6) months before expired date of the certificate.~~

----- end -----

J. 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

7. Demonstration

7.1 ~~Unless a documentary review can not be carried out as specified in A.5.2.2.2, D~~emonstration ~~is to~~ **shall** be carried out in the presence of Surveyor to verify that the suppliers have appropriate competence for the services of testing of coating systems. However, the submission of the comparison test report specified in 2.5). and deemed appropriate by BKI may be accepted as substitution.

~~**7.2** In case where the supplier has been approved by administration and other Classification Societies, a part of or the whole of the demonstration may be dispensed with.~~

~~**7.3** For renewal assessment, demonstration may be dispensed with if the service supplier can provide the inspection reports carried out in the last six (6) months before expired date of the certificate.~~

----- end -----

K. Firms Engaged in Maintenance, Thorough Examination, Operational Testing, Overhaul and Repair of Lifeboats and Rescue Boats, Launching Appliances, and Release Hooks

1. Extent of engagement

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
- 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.

(IACS URZ17 13.1)

----- end -----

7. Demonstration

7.1 **Unless a documentary review can not be carried out as specified in A.5.2.2.2,** On board demonstration ~~is to~~ **shall** be carried out in the presence of BKI Surveyor to verify that the suppliers have appropriate competence for the services of lifeboats, launching appliances, and on-load gear. However, as for the lifeboats, launching appliances and on-load release gear, which are difficult to carry out the demonstration, the submission of the service record certificates may be accepted as substitution.

~~**7.2** In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.~~

~~**7.3** For renewal assessment, demonstration may be dispensed with if the service supplier can provide the service record certificates issued in the last six (6) months before expired date of the certificate.~~

----- end -----

L. Firms Engaged in Inspections and Maintenance of Self Contained Breathing Apparatus

6. Demonstration

6.1 **Unless a documentary review can not be carried out as specified in A.5.2.2.2,** On board demonstration ~~is to~~ **shall** be carried out in the presence of BKI Surveyor to verify that the suppliers have appropriate competence for inspections and maintenance of self-contained breathing apparatus. However, as for self-contained breathing apparatus, which are difficult to carry out the demonstration, the submission of the service record certificates may be accepted as substitution.

~~**6.2** In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.~~

~~**6.3** For renewal assessment, demonstration may be dispensed with if the service supplier can provide the inspection reports carried out in the last six (6) months before expired date of the certificate.~~

----- end -----

M. Firms Engaged in Examination of RO-RO Ships Bow, Stern, Side and Inner Doors

5. Demonstration

5.1 ~~Unless a documentary review can not be carried out as specified in A.5.2.2.2,~~ On board demonstration ~~is to~~ shall be carried out in the presence of BKI Surveyor to verify that the suppliers have appropriate competence for the examination of RO-RO ships bow, stern, side and inner doors. However, as for the examination of RO-RO ships bow, stern, side and inner doors which are difficult to carry out the demonstration, the submission of the examination records may be accepted as substitution.

~~5.2~~ In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.

~~5.3~~ For renewal assessment, demonstration may be dispensed with if the service supplier can provide the examination reports carried out in the last six (6) months before expired date of the certificate.

----- end -----

N. 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. Demonstration

7.1 ~~Unless a documentary review can not be carried out as specified in A.5.2.2.2,~~ On board demonstration ~~is to~~ shall be carried out in the presence of BKI's Surveyor to verify that the supplier has appropriate competence for the inspection specified in the documents submitted.

~~7.2~~ In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.

~~7.3~~ For renewal assessment, demonstration may be dispensed with if the service supplier can provide the service reports carried out in the last six (6) months before expired date of the certificate.

----- end -----

O. Firms Engaged in Sound Pressure Level Measurements of Public Address and General Alarm Systems on Board Ships

7. Demonstration

7.1 ~~Unless a documentary review can not be carried out as specified in A.5.2.2.2,~~ On board demonstration ~~is to~~ shall be carried out in the presence of BKI's Surveyor to verify that the supplier has appropriate competence for the inspection specified in the documents submitted.

~~7.2~~ In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.

~~7.3~~ For renewal assessment, demonstration may be dispensed with if the service supplier can provide the service reports carried out in the last six (6) months before expired date of the certificate.

----- end -----

P. Firms Engaged in Measurements of Noise Level Onboard Ships

4. Equipment

The suppliers are to have the equipment for measurements specified in the following 4.1 through 4.4.

4.1 Sound level meters

Measurement of sound pressure levels shall be carried out using precision integrating sound level meters. Such meters shall be manufactured to IEC 61672-1(2002-05), as amended, type/class 1 standard as applicable, or to an equivalent standard acceptable to the Administration. Class/Type 1 sound level meters manufactured according to IEC 651/IEC 804 (as amended), may be used until 1 July 2016.

4.2 Octave filter set

When used alone, or in conjunction with a sound level meter, as appropriate, an octave filter set shall conform to IEC 61260 (1995)¹, as amended, or an equivalent standard acceptable to the Administration.

4.3 Sound Calibrator

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

Sound calibrator and sound level meter shall 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 shall be kept, including a calibration log.

4.4 Microphone wind screen

A microphone wind screen shall 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 should not affect the measurement level of similar sounds by more than 0,5 dB(A) in "no wind" conditions.

----- end -----

Q. Firms Engaged in Tightness Testing of Primary and Secondary Barriers of Gas Carriers with Membrane Cargo Containment Systems for Vessels in Service

5. Demonstration

5.1 ~~Unless a documentary review can not be carried out as specified in A.5.2.2.2,~~ On board demonstration ~~is to~~ shall be carried out in the presence of BKI's Surveyor to verify that the supplier has appropriate competence for the testing specified in the documents submitted.

~~5.2~~ In case where the supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.

~~5.3~~ For renewal assessment, demonstration may be dispensed with if the service supplier can provide the recent service reports carried out before expired date of the certificate.

----- end -----

¹ Octave-band and fractional-octave-band filters

S. Firms Engaged in Non-Destructive Testing (NDT)

12. Demonstration

12.1 ~~Demonstration is to~~ **shall** be carried out in the presence of BKI's Surveyor to verify that the Service Supplier has appropriate competence for the inspection specified in the documents submitted.

~~12.2~~ ~~In case where the Service Supplier has been approved by other classification societies, a part of or the whole of the demonstration may be dispensed with.~~

~~12.3~~ ~~For renewal assessment, demonstration may be dispensed with if the Service Supplier can provide the service reports carried out in the last six (6) months before expired date of the certificate.~~

----- end -----

V. Firms Engaged in Commissioning Testing of Ballast Water Management Systems (BWMS)

2. Extent of approval

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

(IACS UR Z17 Annex 1 18.2.2)

~~2.2~~ ~~Service Suppliers are to be accredited to relevant standards such as ISO/IEC 17025 or equivalent, as applicable.~~

~~(IACS UR Z17 Annex 1 18.2.3)~~

~~2.3~~ **2.2** Service Suppliers are to be independent of the BWMS manufacturer or supplier including shipyards.

(IACS UR Z17 Annex 1 18.2.4~~3~~)

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4. Operators and Supervisors

4.1 Training

4.1.1 Operators performing sampling and analysis of ballast water shall:

- 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 shall 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.

(IACS UR Z17 Annex 1 18.3)

4.1.2 Operators performing verification of the self-monitoring equipment are to 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 self-monitoring equipment of the BWMS indicates correct operation of the BWMS. In case Service Supplier are not present during ballasting operations, the Service Supplier shall have knowledge of how to access the BWMS log to evaluate that the BWMS operated correctly during ballasting operations
- the procedures and knowledge to be able to assess the applicable self-monitoring parameters (e.g., flow rate, pressure, TRO, UV intensity, etc.) of the BWMS, taking into account the System Design Limitations of the BWMS

(IACS UR Z17 Annex 1 18.3)

4.1.3 The Service Suppliers responsible for the carrying out of commissioning testing of BWMS are to maintain those up-to-date versions of the documents referred to in the following

- 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.1120 56(302) – Survey Guidelines under the Harmonized System of Survey and Certifications (HSSC), 2017 as amended (for BWMS that were Type Approved to the 2016 G8)

(IACS UR Z17 Annex 1 18.7)

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5. Equipment and facilities

5.1 Equipment, procedures and methods for detailed analysis, where applicable, are to be in accordance with relevant International standard and/or accepted Industry standards. Laboratories conducting sample enumeration are to be accredited to ISO/IEC 17025 standard, or equivalent.

(IACS UR Z17 Annex 1 18.4)

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6. Sampling and Analysis

6.1 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 shall follow the IMO's 'Guidelines for Ballast Water Sampling (G2)'.

(IACS UR Z17 Annex 1 18.5)

6.2 The representative samples shall 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.

(IACS UR Z17 Annex 1 18.5)

6.3 Service Suppliers shall maintain a record of:

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

(IACS UR Z17 Annex 1 18.5)

6.4 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 shall ~~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.~~

(IACS UR Z17 Annex 1 18.5)

7. Reporting

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 BKI. 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 Mode, etc.**
- ~~Operation required, e.g., ballasting, de-ballast, circulation, one pass, in tank, etc.~~
- Treatment rated capacity (TRC) in m^3/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 flow rate, ballast tanks and volume Pump and ballast tanks used for the commissioning test, including the flow rates and volumes of the ballasting and deballasting operations**

- Comments/Options: Filter and other major components, Process measurements
(IACS UR Z17 Annex 1 18.6)

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