



**BUREAU  
VERITAS**

# **Approval of Service Suppliers**

**July 2021**

**Rule Note  
NR 533 DT R07 E**

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**1. INDEPENDENCE OF THE SOCIETY AND APPLICABLE TERMS**

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

**2. DEFINITIONS**

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

**3. SCOPE AND PERFORMANCE**

- 3.1 Subject to the Services requested and always by reference to the Rules, and/or to the Applicable Referential, the Society shall:
  - review the construction arrangements of the Unit as shown on the documents provided by the Client;
  - conduct the Unit surveys at the place of the Unit construction;
  - class the Unit and enter the Unit's class in the Society's Register;
  - survey the Unit periodically in service to note whether the requirements for the maintenance of class are met.The Client shall inform the Society without delay of any circumstances which may cause any changes on the conducted surveys or Services.
- 3.2 The Society will not:
  - declare the acceptance or commissioning of a Unit, nor its construction in conformity with its design, such activities remaining under the exclusive responsibility of the Unit's owner or builder;
  - engage in any work relating to the design, construction, production or repair checks, neither in the operation of the Unit or the Unit's trade, neither in any advisory services, and cannot be held liable on those accounts.

**4. RESERVATION CLAUSE**

- 4.1 The Client shall always: (i) maintain the Unit in good condition after surveys; (ii) present the Unit for surveys; and (iii) inform the Society in due time of any circumstances that may affect the given appraisalment of the Unit or cause to modify the scope of the Services.
- 4.2 Certificates are only valid if issued by the Society.
- 4.3 The Society has entire control over the Certificates issued and may at any time withdraw a Certificate at its entire discretion including, but not limited to, in the following situations: where the Client fails to comply in due time with instructions of the Society or where the Client fails to pay in accordance with clause 6.2 hereunder.
- 4.4 The Society may at times and at its sole discretion give an opinion on a design or any technical element that would 'in principle' be acceptable to the Society. This opinion shall not presume on the final issuance of any Certificate nor on its content in the event of the actual issuance of a Certificate. This opinion shall only be an appraisalment made by the Society which shall not be held liable for it.

**5. ACCESS AND SAFETY**

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

**6. PAYMENT OF INVOICES**

- 6.1 The provision of the Services by the Society, whether complete or not, involves, for the part carried out, the payment of fees thirty (30) days upon issuance of the invoice.
- 6.2 Without prejudice to any other rights hereunder, in case of Client's payment default, the Society shall be entitled to charge, in addition to the amount not properly paid, interest equal to twelve (12) months LIBOR plus two (2)

per-cent as of due date calculated on the number of days such payment is delinquent. The Society shall also have the right to withhold Certificates and other documents and/or to suspend or revoke the validity of Certificates.

- 6.3 In case of dispute on the invoice amount, the undisputed portion of the invoice shall be paid and an explanation on the dispute shall accompany payment so that action can be taken to resolve the dispute.

**7. LIABILITY**

- 7.1 The Society bears no liability for consequential loss. For the purpose of this clause consequential loss shall include, without limitation:
  - Indirect or consequential loss;
  - Any loss and/or deferral of production, loss of product, loss of use, loss of bargain, loss of revenue, loss of profit or anticipated profit, loss of business and business interruption, in each case whether direct or indirect.The Client shall defend, release, save, indemnify, defend and hold harmless the Society from the Client's own consequential loss regardless of cause.
- 7.2 Except in case of wilful misconduct of the Society, death or bodily injury caused by the Society's negligence and any other liability that could not be, by law, limited, the Society's maximum liability towards the Client is limited to one hundred and fifty per-cent (150%) of the price paid by the Client to the Society for the Services having caused the damage. This limit applies to any liability of whatsoever nature and howsoever arising, including fault by the Society, breach of contract, breach of warranty, tort, strict liability, breach of statute.
- 7.3 All claims shall be presented to the Society in writing within three (3) months of the completion of Services' performance or (if later) the date when the events which are relied on were first discovered by the Client. Any claim not so presented as defined above shall be deemed waived and absolutely time barred.

**8. INDEMNITY CLAUSE**

- 8.1 The Client shall defend, release, save, indemnify and hold harmless the Society from and against any and all claims, demands, lawsuits or actions for damages, including legal fees, for harm or loss to persons and/or property tangible, intangible or otherwise which may be brought against the Society, incidental to, arising out of or in connection with the performance of the Services (including for damages arising out of or in connection with opinions delivered according to clause 4.4 above) except for those claims caused solely and completely by the gross negligence of the Society, its officers, employees, servants, agents or subcontractors.

**9. TERMINATION**

- 9.1 The Parties shall have the right to terminate the Services (and the relevant contract) for convenience after giving the other Party thirty (30) days' written notice, and without prejudice to clause 6 above.
- 9.2 The Services shall be automatically and immediately terminated in the event the Client can no longer establish any form of interest in the Unit (e.g. sale, scrapping).
- 9.3 The Classification granted to the concerned Unit and the previously issued Certificates shall remain valid until the date of effect of the termination notice issued, or immediately in the event of termination under clause 9.2, subject to compliance with clause 4.1 and 6 above.
- 9.4 In the event where, in the reasonable opinion of the Society, the Client is in breach, or is suspected to be in breach of clause 16 of the Conditions, the Society shall have the right to terminate the Services (and the relevant contracts associated) with immediate effect.

**10. FORCE MAJEURE**

- 10.1 Neither Party shall be responsible or liable for any failure to fulfil any term or provision of the Conditions if and to the extent that fulfillment has been delayed or temporarily prevented by a force majeure occurrence without the fault or negligence of the Party affected and which, by the exercise of reasonable diligence, the said Party is unable to provide against.
- 10.2 For the purpose of this clause, force majeure shall mean any circumstance not being within a Party's reasonable control including, but not limited to: acts of God, natural disasters, epidemics or pandemics, wars, terrorist attacks, riots, sabotages, impositions of sanctions, embargoes, nuclear, chemical or biological contaminations, laws or action taken by a government or public authority, quotas or prohibition, expropriations, destructions of the worksite, explosions, fires, accidents, any labour or trade disputes, strikes or lockouts.

**11. CONFIDENTIALITY**

- 11.1 The documents and data provided to or prepared by the Society in performing the Services, and the information made available to the Society, will be treated as confidential except where the information:
  - is properly and lawfully in the possession of the Society;
  - is already in possession of the public or has entered the public domain, other than through a breach of this obligation;
  - is acquired or received independently from a third party that has the right to disseminate such information;
  - is required to be disclosed under applicable law or by a governmental order, decree, regulation or rule or by a stock exchange authority (provided that the receiving Party shall make all reasonable efforts to give prompt written notice to the disclosing Party prior to such disclosure).
- 11.2 The Parties shall use the confidential information exclusively within the framework of their activity underlying these Conditions.
- 11.3 Confidential information shall only be provided to third parties with the prior written consent of the other Party. However, such prior consent shall not be required when the Society provides the confidential information to a subsidiary.
- 11.4 Without prejudice to sub-clause 11.1, the Society shall have the right to disclose the confidential information if required to do so under regulations of the International Association of Classification Societies (IACS) or any statutory obligations.

**12. INTELLECTUAL PROPERTY**

- 12.1 Each Party exclusively owns all rights to its Intellectual Property created before or after the commencement date of the Conditions and whether or not associated with any contract between the Parties.
- 12.2 The Intellectual Property developed by the Society for the performance of the Services including, but not limited to drawings, calculations, and reports shall remain the exclusive property of the Society.

**13. ASSIGNMENT**

- 13.1 The contract resulting from to these Conditions cannot be assigned or transferred by any means by a Party to any third party without the prior written consent of the other Party.
- 13.2 The Society shall however have the right to assign or transfer by any means the said contract to a subsidiary of the Bureau Veritas Group.

**14. SEVERABILITY**

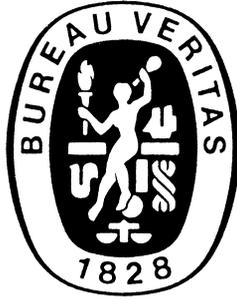
- 14.1 Invalidity of one or more provisions does not affect the remaining provisions.
- 14.2 Definitions herein take precedence over other definitions which may appear in other documents issued by the Society.
- 14.3 In case of doubt as to the interpretation of the Conditions, the English text shall prevail.

**15. GOVERNING LAW AND DISPUTE RESOLUTION**

- 15.1 These Conditions shall be construed in accordance with and governed by the laws of England and Wales.
- 15.2 Any dispute shall be finally settled under the Rules of Arbitration of the Maritime Arbitration Chamber of Paris ("CAM"), which rules are deemed to be incorporated by reference into this clause. The number of arbitrators shall be three (3). The place of arbitration shall be Paris (France). The Parties agree to keep the arbitration proceedings confidential.
- 15.3 Notwithstanding clause 15.2, disputes relating to the payment of the Society's invoices may be submitted by the Society to the *Tribunal de Commerce de Nanterre*, France, or to any other competent local Court, at the Society's entire discretion.

**16. PROFESSIONAL ETHICS**

- 16.1 Each Party shall conduct all activities in compliance with all laws, statutes, rules, economic and trade sanctions (including but not limited to US 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 (<https://personaldataprotection.bureauveritas.com/prv-acvpolicy>).
- Each of the Parties warrants that neither it, nor its affiliates, has made or will make, with respect to the matters provided for hereunder, any offer, payment, gift or authorization of the payment of any money directly or indirectly, to or for the use or benefit of any official or employee of the government, political party, official, or candidate.
- 16.2 In addition, the Client shall act consistently with the Bureau Veritas' Code of Ethics and, when applicable, Business Partner Code of Conduct both available at <https://group.bureauveritas.com/group/corporate-social-responsibility/operational-excellence>.



## RULE NOTE NR 533

### NR 533 Approval of Service Suppliers

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# SECTION 1 GENERAL

## 1 General

### 1.1 Introduction

**1.1.1** To approve companies providing services such as measurements, tests or maintenance of safety systems and equipment, the Society is to apply the procedure described in this document.

### 1.2 Objective

**1.2.1** The objective of this Rule Note is to set requirements for approval and certification of service suppliers and is applicable to both initial and renewal audits.

### 1.3 Definitions

#### 1.3.1 The Society

"The Society" means Bureau Veritas Marine & Offshore SAS.

#### 1.3.2 Service supplier

"Service supplier" (a service supplier or a category of service supplier may be referred to hereafter simply as "supplier") means a person or a company not employed by the Society who, at the request of an equipment manufacturer, a shipyard, a Shipowner or another 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, taking decisions affecting classification or statutory certifications and services.

#### 1.3.3 Manufacturer

"Manufacturer" means a company that manufactures equipment required to be periodically serviced and/or maintained.

#### 1.3.4 Agent

"Agent" means a person or a company authorised to act for, or to represent, a manufacturer or approved/recognized service supplier.

#### 1.3.5 Subsidiary

"Subsidiary" means a company partly or wholly owned by a manufacturer or approved/recognized service supplier.

#### 1.3.6 Subcontractor

"Subcontractor" means a person or a company providing services to a manufacturer or approved/recognized service supplier, with a formal contract defining the assumption of the obligations from the service supplier.

#### 1.3.7 Personnel

"Personnel" means an operator, a technician, an inspector or a supervisor employed by the service supplier.

#### 1.3.8 Certificate

"Certificate" means a Certificate of Approval delivered to the service supplier.

### 1.4 Additional requirements

**1.4.1** In addition to the requirements outlined in Sec 2 and depending on the area to be assessed, the service supplier is to fulfill the specific requirements as detailed in App 1.

## SECTION 2

## PROCEDURE FOR APPROVAL

### 1 Application

#### 1.1 Class and statutory services

##### 1.1.1 Service suppliers involved in class and/or statutory services

- service suppliers engaged in thickness measurements on ships or mobile offshore units, except non-ESP ships of less than 500 gross tonnage and all fishing vessels
- service suppliers carrying out an in-water survey on ships and mobile offshore units by diver or remotely operated vehicle (ROV)
- service suppliers engaged in inspections and maintenance of fire-extinguishing equipment and systems
- service suppliers engaged in measurements of noise level on board ships
- service suppliers engaged in the examination of bow, stern, side and inner doors of Ro-Ro ships
- service suppliers engaged in tightness testing of primary and secondary barriers of gas carriers with membrane cargo containment systems for ships in service
- service suppliers 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.
- service suppliers engaged in visual and/or sampling checks and preparation of Inventory of Hazardous Materials (IHM).
- service suppliers engaged in noise and vibrations measurements within the scope of **COMF** class notation.
- service suppliers engaged in underwater radiated noise measurements related to **URN** class notation.
- Firms engaged in Cable Transit Seal Systems inspection on ships and Mobile Offshore Units.

##### 1.1.2 Service suppliers involved in statutory services

- service suppliers engaged in servicing on inflatable life-rafts, inflatable lifejackets, hydrostatic release units, inflatable rescue boats, marine evacuation systems
- service suppliers engaged in the inspections and testing of radio communication equipment
- service suppliers engaged in inspections and maintenance of self-contained breathing apparatus
- service suppliers engaged in annual performance testing of Voyage Data Recorders (VDR) and simplified Voyage Data Recorders (S-VDR)
- service suppliers engaged in sound pressure level measurements of public address and general alarm systems

- service suppliers 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
- service suppliers engaged in maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear.
- service suppliers engaged in inspection, performance testing and maintenance of Automatic Identification Systems (AIS).

Note 1: National and/or international requirements may give requirements supplementing the procedure given in Article [2].

**1.1.3** Where the Society accepts work of a third party (e.g. a service supplier) approved by itself, the Society 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. The process is to be defined within the Society's quality management system. For the purpose of accountability to the flag State, the work performed by the third party (e.g. service supplier) constitutes the work of the Society and is to be subject to the requirements incumbent upon the Society under the RO Code IMO MSC.349 (92) and MEPC.237(65).

**1.1.4** Where the results of the following service suppliers are used by a Surveyor in making decisions affecting classification services, then these service suppliers are to be approved and verified by the Society:

- service suppliers engaged in thickness measurements on ships or mobile offshore units, except:
  - non-ESP ships of less than 500 gross tonnage, and
  - all fishing vessels.
- service suppliers carrying out an in-water survey on ships and mobile offshore units by diver or remotely operated vehicle (ROV)
- service suppliers 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
- service suppliers engaged in noise and vibrations measurements within the scope of **COMF** class notation
- service suppliers engaged in underwater radiated noise measurements related to **URN** class notation.

**1.1.5** Where such services are used by Surveyors in making decisions affecting statutory certification and service, the service suppliers are subject to approval and verification by the Society, where the Society is so authorized 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, the Society may accept approvals done by:

- the flag Administration itself
- duly authorized organizations acting on behalf of the flag Administration, or
- other organizations recognized by the flag Administration (e.g. other governments, etc.).

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

- service suppliers 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
- service suppliers engaged in sound pressure level measurements of public address and general alarm systems on board ships
- service suppliers engaged in measurements of noise level on board ships
- service suppliers engaged in the examination of bow, stern, side and inner doors of Ro-Ro ships.

## 2 Procedure

### 2.1 Documents to be submitted

#### 2.1.1 Application file

The following documents are to be submitted to the Society for review:

- a) outline of the company, e.g. organization and management structure, including subsidiaries to be included in the approval/certification
- b) list of the nominated agents, subsidiaries and subcontractors
- c) experience of the company in the specific service area
- d) 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 is to be provided
- e) list of documenting training and experience of operators/technicians/inspectors within the relevant service area, and qualifications according to recognized national, international or industry standards, as relevant
- f) description of equipment used for the particular service for which approval is sought
- g) a guide for operators of such equipment
- h) training programmes for operators/technicians/inspectors
- i) check lists and record formats for recording results of the services referred to in Article [1]
- j) quality manual and/or documented procedures covering requirements in [2.2]

- k) 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
- l) evidence of approval/acceptance by other bodies, if any
- m) information on the other activities which may present a conflict of interest
- n) record of customer claims and of corrective actions requested by certification bodies.

Requirements concerning service suppliers are given in:

- [2.3] for general requirements
- App 1 for specific requirements, where necessary.

## 2.2 Quality system

### 2.2.1 Documented system

The service supplier shall have a documented system covering at least the following:

- code of conduct for the relevant activity
- maintenance and calibration of equipment
- training programmes for operators/technicians/inspectors
- supervision and verification to ensure compliance with operational procedures
- recording and reporting of information
- quality management of subsidiaries, agents and subcontractors
- job preparation
- periodic review of work process procedures, complaints, corrective actions, and issuance, maintenance and control of documents.

**2.2.2** A documented quality system complying with the most current version of ISO 9000 series or equivalent and including the above items, would be considered acceptable.

**2.2.3** If a manufacturer of equipment (and/or its service supplier) applies to the Society for inclusion of its nominated agents and/or subsidiaries (excluding any subcontractor), in the approval, then it must have implemented a quality system certified in accordance with the most current version of ISO 9000 series. The quality system must contain effective controls of the manufacturer's (and/or service supplier's) agents and/or subsidiaries. The nominated agents and/or subsidiaries must also have in place an equally effective quality system complying with the most current version of ISO 9000 series. Such approvals shall be based upon an evaluation of the quality system implemented by the parent company against the most current version of ISO 9000 series.

The Society may require follow-up audits on such agents and/or subsidiaries against the most current version of ISO 9000 series to confirm adherence to this quality system.

## 2.3 General requirements

### 2.3.1 Extent of approval

The service supplier is to demonstrate, as required by [2.3.2] to [2.3.13], that it has the competence and control needed to perform the services for which the approval is sought.

### 2.3.2 Training of personnel

The service supplier is responsible for the qualification and training of its personnel to a recognized national, international or industry standard, as applicable. Where such standards do not exist, the service supplier is to define standards for the training and qualification of its personnel relevant to the functions each is authorized to perform. The personnel is also to have an 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 as acceptable.

### 2.3.3 Supervision

The service supplier is to provide supervision for all services provided. The responsible supervisor is to have had a minimum of two years of experience as operator/technician/inspector within the activity for which the service supplier is approved. For a service supplier consisting of one person, that person is to meet the requirements of a supervisor.

### 2.3.4 Personnel records

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

### 2.3.5 Subcontractors

The service supplier is to give information of agreements and arrangements if any parts of the provided services are subcontracted. Particular emphasis is to be given to quality management by the service supplier in following-up of such subcontracts. Subcontractors providing the services of the approved service supplier are also to meet the requirements of [2].

### 2.3.6 Equipment and facilities

The service 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. The Society is to assess and record the validity of previous measuring results when the equipment is found not to conform to requirements. The Society is to take appropriate action on the equipment affected.

### 2.3.7 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 sat-

isfy 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 used within their designed application range may be considered to be sufficiently validated and do not require any subsequent confirmation.

**2.3.8** Where several servicing stations are owned by a given company, each station is to be assessed and approved except as specified in [2.2.3].

### 2.3.9 Procedures and instructions

The service supplier is to have documented work procedures and instructions covering all the services supplied.

**2.3.10** Documented procedures and instructions should 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.

### 2.3.11 Verification

The service supplier shall verify that the services provided are carried out in accordance with approved procedures.

### 2.3.12 Reporting

The report shall be prepared in a form acceptable to the Society. The report should detail the results of inspections, measurements, tests, maintenance and/or repairs carried out. Special guidelines may be given in App 1. The report shall include a copy of the Certificate of Approval. The report shall be made available to the Surveyor.

### 2.3.13 Documentation

The service supplier is responsible for ensuring the provision and updating of:

- reporting forms in use
- other documents such as user equipment manuals, Rules or Guidance Notes.

## 2.4 Auditing of the service supplier

**2.4.1** Upon reviewing the submitted documents with satisfactory result, the service supplier is audited in order to ascertain that he is duly organized and managed in accordance with the submitted documents, and that he is considered capable of conducting the services for which approval or certification is sought.

## 2.5 Witnessing

**2.5.1** Certification is conditional on a practical demonstration of the performance of the specific service as well as satisfactory reporting being carried out. At renewal audits, evidence of performance, verified by the Surveyor, since the previous audit is sufficient to satisfy this requirement.

## **2.6 Service supplier's relations with the equipment manufacturer**

### **2.6.1 Service suppliers working as a service station**

A service supplier working as a service station for manufacturer(s) of equipment (and as a service supplier in this field), shall be assessed by the manufacturer(s) and nominated as his (their) agent. The manufacturer shall ensure that appropriate instruction manuals, material etc. are available for the agent as well as of proper training of the agent's technicians. Such service suppliers shall be approved, either on a case-by-case basis or in accordance with [2.2.3].

## **3 Alteration to the certified service operating system**

### **3.1 Notification**

**3.1.1** Where any alteration to the certified service operating system of the service supplier is made, such alteration is to be immediately notified to the Society. Re-audit may be required when deemed necessary by the Society.

## SECTION 3 CERTIFICATION

### 1 General process

#### 1.1 Issuance of the Certificate of Approval

**1.1.1** Upon satisfactory review of the application file and the completion of both the audit of the service supplier and the demonstration test, as applicable, the Society may issue a Certificate of Approval stating that the service supplier's service operation system has been found to be satisfactory and that the results of services performed in accordance with that system may be accepted and utilised by the Surveyors taking decisions affecting classification or statutory certification, as relevant. The Certificate shall clearly state the type and scope of services and any limitations or restrictions imposed, including type of equipment and/or names of manufacturers of equipment where this is a limiting restraint. The service supplier may also be included in the Society's records of approved service suppliers.

#### 1.2 Renewal of the Certificate of Approval

**1.2.1** Renewal or endorsement of the Certificate is to be made at intervals not exceeding three years by verification through audits that approved conditions are maintained or, where applicable, on expiry of the supplier's approval received from an equipment manufacturer, whichever comes first. In the latter case, the Society is to be informed in due course by the service supplier.

Intermediate audits may be requested, if deemed necessary by the Society. It is the responsibility of the service supplier to request the renewal of its agreement.

### 2 Cancellation of approval

#### 2.1 Condition for cancellation

**2.1.1** The Society reserves the right to cancel the approval and to inform the IACS Members accordingly (for service suppliers engaged in thickness measurements, refer to IACS PR23).

**2.1.2** Approval may be cancelled in the following cases:

- where the service was improperly carried out or the results were improperly reported
- where a Surveyor finds deficiencies in the approved service operating system of the service supplier and appropriate corrective actions are not taken
- where alterations have been made to the company's quality system relevant to the service supplier certificates, without written notification to the Society
- where the intermediate audit, if prescribed, has not been carried out
- where willful acts or omissions or grossly negligent act or omission are ascertained
- where any deliberate misrepresentation has been made by the service supplier.

**2.1.3** Expiration or cancellation of the supplier's parent company approval automatically invalidates approval of all agents and subsidiaries if these ones are certified according to Sec 2, [2.2.3].

#### 2.1.4 Re-approval

A service supplier whose approval has been cancelled may apply for re-approval, provided it has corrected the non-conformities which resulted in cancellation, and the Society is able to confirm it has effectively implemented the corrective action.

# APPENDIX 1                      SPECIFIC REQUIREMENTS

## 1 Service suppliers engaged in thickness measurements on ships or mobile offshore units

### 1.1 Extent of engagement

1.1.1 Thickness measurements of structural material of ships or mobile offshore units, except:

- non-ESP ships less than 500 gross tonnage, and
- all fishing vessels.

### 1.2 Reference document

1.2.1 The service supplier shall have access to the relevant parts of the Society's Rules and Guidelines.

### 1.3 Qualification

#### 1.3.1 Supervisor

The responsible supervisor shall be qualified according to a recognized national or international industrial NDT standard (e.g. EN 473 level II as amended, or ISO 9712 level II as amended).

#### 1.3.2 Operators

The operators carrying out the measurements shall be certified to a recognized national or international industrial standard (e.g. EN 473 level I as amended, or ISO 9712 level I as amended) and shall have adequate knowledge of ship structures sufficient to elect a representative position for each measurements.

### 1.4 Equipment

1.4.1 On coated surfaces, instruments using pulsed echo technique (with either oscilloscope or digital instruments using multiple echoes, single crystal technique) are required. Single echo instruments may be used on uncoated surfaces, which have been cleaned and ground.

### 1.5 Procedures

1.5.1 Documented work procedures are at least to contain information on inspection preparation, selection and identification of test locations, surface preparation, protective coating preservation, calibration checks, and report preparation and content.

### 1.6 Verification

1.6.1 The service supplier must have the Surveyor's verification of each separate job, documented in the report by the attending Surveyor(s) signature.

## 2 Service suppliers carrying out an in-water survey on ships and mobile offshore units by diver or remotely operated vehicle (ROV)

### 2.1 Extent of engagement

2.1.1 In-water survey in lieu of a docking survey and/or internal hull survey of compartment filled with water on ships and mobile offshore units by diver or remotely operated vehicle (ROV).

### 2.2 Reference document

2.2.1 The service supplier shall have access to the relevant parts of the Society's Rules and Guidelines.

### 2.3 Qualification

#### 2.3.1 Training of personnel

The service supplier is responsible for the qualification of its divers, remotely operated vehicle (ROV) operators and supervisors and for their training in the use of the equipment utilized when carrying out inspection. Knowledge of the following is to be documented:

- ship's underwater structure and appendages, propeller-shaft, propeller, rudder and its bearings, etc
- non-destructive testing in accordance with a recognized national or international industrial NDT standard. This requirement only applies if an in-water survey company performs non-destructive testing
- certification as a thickness measurement service supplier when conducting thickness measurements under water
- bearing clearance measurements on rudders and propeller shaft
- under-water video monitoring with TV-monitors on deck, as well as still picture work
- operation of under-water communication system
- any special equipment necessary for the work carried out.

#### 2.3.2 Training plan

A plan for training of personnel in the reporting system, minimum rule requirements for relevant ship or unit types, ship's or unit's underwater structure, measuring of bearing clearances, recognition of corrosion damage, buckling and deteriorated coatings, etc. shall be included.

### 2.3.3 Supervisor

- a) Diving supervisor: diving supervisor shall be qualified according to the service supplier's general requirements and shall have a minimum of two years' experience as a diver carrying out inspection.
- b) ROV supervisor: ROV supervisor shall have a minimum of two (2) years of experience conducting inspections with ROVs.

### 2.3.4 Diver and operator

- a) Divers carrying out inspection: the diver carrying out the inspection shall have had at least one year's experience as an assistant diver carrying out inspections (including participation in a minimum of 10 different assignments).
- b) ROV operators: ROV operators shall have at least one year working with ROVs conducting inspections on vessels.

## 2.4 Equipment

2.4.1 The following shall be available:

- closed circuit color television with sufficient illumination equipment
- two-way communication between diver and surface staff
- video recording device connected to the closed circuit television
- still photography camera
- equipment for carrying out thickness gauging, non-destructive testing and measurements, e.g. clearances, indents, etc., as relevant to the work to be performed
- equipment for cleaning of the hull.

2.4.2 In addition to above [2.4.1], the following shall be available for service suppliers carrying out survey by ROV:

- remotely operated vehicle
- adequate controls or programming for the ROV functions required.

## 2.5 Procedures and guidelines

2.5.1 The service supplier shall have documented operational procedures and guidelines for how to carry out the inspection and how to handle the equipment. These are to include:

- two-way communication between diver and surface
- video recording and closed circuit television operation
- guidance of the diver along the hull to provide complete coverage of the parts to be inspected.

2.5.2 In addition to above [2.5.1], documented operational procedures and guidelines for firms carrying out in-water survey by ROV are also to include:

- guidance for the operation and maintenance of the remotely operated vehicle (ROV), if applicable
- methods and equipment to ensure the ROV operator can determine the ROV's location and orientation in relation to the vessel.

## 2.6 Verification

2.6.1 The service supplier must have the Surveyor's verification of each separate job, documented in the report by the attending Surveyor(s) signature.

## 3 Service suppliers engaged in examination of bow, stern, side and inner doors of Ro-Ro ships

### 3.1 Extent of engagement

3.1.1 Inspection of securing and locking devices, hydraulic operating system, electric control system for the hydraulics, electric indicator systems, and supporting, securing and locking devices and tightness testing.

### 3.2 Reference documents

3.2.1 The service supplier shall have access to the relevant parts of the Society's Rules and Guidelines and to the following reference documents:

- IMO - International Convention on the Safety of Life at Sea (SOLAS) 74/78, as amended
- ISO 9002:1994 - Quality systems - Model for quality assurance in production, installation and servicing
- UR Z24 - Survey Requirements for Shell and Inner Doors of Ro-Ro ships, or its equivalent, by the Society.

### 3.3 Quality certification

3.3.1 The service supplier is to be certified to the most current version of ISO 9000 series.

### 3.4 Qualification

#### 3.4.1 Supervision

In addition to Sec 2, [2.3.3], the supervisor is to have a minimum of two years of related education from a technical school.

#### 3.4.2 Training of personnel

Operators carrying out non-destructive examination (NDE) are to be qualified to a recognized national or international standard for the methods used.

### 3.5 Required equipment

#### 3.5.1 Inspection of supporting securing and locking devices, hinges and bearings

- equipment for measuring clearances (i.e. feeler gauges, vernier calipers, micrometers)
- non-destructive examination (i.e. dye penetrant, magnetic particle inspection).

#### 3.5.2 Tightness testing

- ultrasonic leak detector or equivalent.

### 3.5.3 Inspection of hydraulic operating system

- pressure gauges
- particle counter for analyzing the quality of hydraulic fluid.

### 3.5.4 Inspection of electric control system and indication system

- digital multi-meter
- earth fault detector.

## 3.6 Procedures and instructions

**3.6.1** The service supplier shall have access to drawings and documents, including the operating and inspection manual.

**3.6.2** The service supplier shall have access to the service history of the doors.

**3.6.3** The service supplier should use, complete and sign a checklist which has been found acceptable by the Society.

## 3.7 Verification

**3.7.1** The service supplier must have the Surveyor's verification of each separate job, documented in the report by the attending Surveyor(s) signature.

## 4 Service suppliers engaged in inspections and maintenance of fire-extinguishing equipment and systems

### 4.1 Extent of engagement

**4.1.1** Inspections and maintenance of fire-extinguishing equipment and systems such as fixed fire-extinguishing systems, portable fire extinguishers and fire detection and alarm systems.

### 4.2 Extent of approval

**4.2.1** As prerequisite to the Society's approval, the servicing station, where involved in servicing of fire detection systems, is to be approved by the equipment Manufacturer(s) as per a dedicated list of equipment.

**4.2.2** The service supplier shall provide evidence of any such license granted by the equipment Manufacturer(s).

**4.2.3** Service suppliers are to have professional knowledge of fire theory, fire-fighting and fire-extinguishing appliances sufficient to carry out the maintenance and/or inspections, and to make the necessary evaluations of the condition of the equipment.

**4.2.4** 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.

**4.2.5** 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.

## 4.3 Reference document

**4.3.1** The service supplier is to have access to the following documents:

- Manufacturer's servicing manuals, servicing bulletins, instructions and training manuals, as appropriate
- Type approval certificates showing any conditions that may be appropriate during the servicing and/or maintenance of fire-extinguishing equipment and systems
- SOLAS, MSC.1/Circular.1318 (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(s)
- MSC/Circ.670 (Guidelines for the Performance and Testing Criteria and Surveys of High Expansion Foam Concentrates for Fixed Fire-Extinguishing Systems)
- MSC/Circ.798 (Guidelines for the Performance and Testing Criteria and Surveys of Medium Expansion Foam Concentrates for Fixed Fire-Extinguishing Systems)
- MSC/Circ.799 (Guidelines for the Performance and Testing Criteria and Surveys of Expansion Foam Concentrates for Fixed Fire-Extinguishing Systems of Chemical Tankers)
- 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)
- MSC.1/Circ.1432 (Revised Guidelines for the Maintenance and Inspection of Fire Protection Systems and Appliances)
- IMO Res. A. 951(23) - Improved guidelines for marine portable fire extinguishers
- MSC.1/Circ.1370 - Guidelines for the design, construction and testing of fixed hydrocarbon gas detection systems
- Guidelines adopted by IMO for fire-extinguishing equipment and systems specifically intended for service by service suppliers
- the relevant parts of the Society's Rules and Guidelines.

## 4.4 Equipment and facilities

### 4.4.1 General requirements

If service suppliers undertake shore-based inspecting 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.

Service suppliers undertaking inspecting and maintenance of equipment and systems on board are to provide the appropriate facilities to either complete the work on board or remove the necessary items to their workshops.

#### 4.4.2 Equipment

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

- various scales to weigh items
- means to hydrostatically pressure test components/systems/storage bottles
- liquid/gas, flow meters, as appropriate
- pressure gauges or manometers
- in the cases of foam concentrates and portable fire extinguishers, chemical analysis equipment and a testing bay, respectively, and
- specific equipment/spares as may be specified by the Manufacturer(s)
- level measuring equipment for bottles
- recharging facilities for pressurized bottles, extinguishers and cartridges.

#### 4.5 Procedures

**4.5.1** 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.

Additionally they are to make reference to any requirements (e.g. what markings should be appended to the equipment/system).

### 5 Service suppliers engaged in servicing of inflatable liferafts, inflatable lifejackets, hydrostatic release units, inflatable rescue boats, marine evacuation systems

#### 5.1 Extent of engagement

**5.1.1** Servicing of inflatable liferafts, inflatable lifejackets, hydrostatic release units and/or inflatable rescue boats.

**5.1.2** Servicing of marine evacuation systems.

#### 5.2 Extent of approval

**5.2.1** As a prerequisite to the Society's recognition, the servicing station is to be approved by the equipment Manufacturer(s) as per dedicated list of equipment.

**5.2.2** The service supplier shall provide evidence that it has been authorized or licensed to service the particular makes and models of equipment for which approval is sought by the equipment Manufacturer(s).

#### 5.3 Reference documents

**5.3.1** The service supplier is to have access to the following documents:

- 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)
- IMO - Resolution MSC.55(66)
- IMO - MSC.1/Circ.1328 - Guidelines for the Approval of Inflatable Liferafts Subject to Extended Service Intervals Not Exceeding 30 Months
- Manufacturer's servicing manuals, servicing bulletins, instructions and training manuals, as appropriate
- 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
- LSA code/Chap.IV, 1995 SOLAS Conference Resolution 4 regarding marine evacuation systems
- the relevant parts of the Society's Rules and Guidelines.

#### 5.4 Equipment and facilities

**5.4.1** IMO Res. A.761 (18) as amended by MSC.55(66) gives recommendations on conditions for the approval of servicing stations for inflatable liferafts which shall be observed as relevant. Where inflatable liferafts are subject to extended service intervals, MSC.1/Circ.1328 should also be followed.

#### 5.5 Procedures and instructions

**5.5.1** The service supplier shall have documented procedures and instructions for how to carry out service of equipment.

**5.5.2** 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 should be followed in addition to Resolution A.761(18) as amended by MSC.55(66).

### 6 Service suppliers engaged in inspections and testing of radio communication equipment

#### 6.1 Extent of engagement

**6.1.1** Inspection, testing, and/or measurement of radio equipment aboard ships or mobile offshore units for compliance with SOLAS regulations.

**6.1.2** Annual testing of 406 MHz satellite EPIRBs for compliance with SOLAS Regulation IV/15.9.

**6.1.3** The principles of this Article also apply to service suppliers involved in inspection, performance testing and maintenance of Automatic Identification Systems (AIS). The service supplier is to be familiar with the equipment with which it will be involved, such as being a service agent for the equipment Manufacturer(s).

## 6.2 Reference documents

**6.2.1** The service supplier is to have access to the following documents:

- SOLAS 1974 as amended
- IMO Res. A.789(19): Specification on the survey and certification functions of recognised organisations acting on behalf of the administration
- MSC/Circ.1040/Rev.1 - Guidelines on Annual Testing of 406 MHz Satellite EPIRBs
- MSC.1/Circ.1252 - Guidelines on Annual Testing of the Automatic Identification System (AIS)
- SN/Circ.227, SN/Circ.227/Corr.1 and 245 - Guidelines for the Installation of a Shipborne Automatic Identification System (AIS) and amendments thereto
- ITU Radio Regulations
- IMO Performance Standards for the Equipment for which the Service Supplier is Approved
- Flag State Administration requirements
- the relevant parts, if any, of the Society's Rules and Guidelines.

## 6.3 Qualification

### 6.3.1 Supervisor

The supervisor shall have a minimum of two years of education from a technical school and experience as an inspector, and should preferably hold a General Operator's Certificate (GOC) or a GMDSS RadioElectronic Certificate (REC), recognised by the ITU, to operate or test radio transmitters. He should be aware of any local conditions for radio signal propagation, of regional radio stations and their facilities, and of the GMDSS infrastructure.

### 6.3.2 Radio inspector

The inspector carrying out the inspection shall have passed the internal training of the service supplier in radiotelephony, GMDSS, and initial and renewal surveys, as applicable. The inspector shall also have at least one year of technical school training or, as alternative, hold evidence that he followed a technical course approved by the relevant Administration, at least one year of experience as an assistant radio inspector and should preferably hold an appropriate National Radio Operators Certificate, recognised by the ITU, such as a GMDSS General Operator's Certificate (GOC) or a GMDSS RadioElectronic Certificate (REC). He should be aware of any local conditions for radio signal propagation, of regional radio stations and their facilities, and of the GMDSS infrastructure.

## 6.4 Equipment and facilities

**6.4.1** The service supplier shall have the major and auxiliary equipment required for correctly performing the inspection. A record of the equipment used shall be kept. The record shall contain information on the Manufacturer and type of equipment, and a log of maintenance and calibrations.

**6.4.2** A standard which is relevant to the radio equipment to be tested shall be available for the equipment and shall be cited in the inspection report.

### 6.4.3 Software

For equipment employing software in the conjunction with testing/examination, this software shall be fully described and verified.

### 6.4.4 Minimum required instruments

Equipment for measuring frequency, voltage, current and resistance.

Equipment for measuring output and reflect effect on VHF and MF/HF.

Equipment for measuring modulation on MF/HF and VHF (AM, FM, PM).

Acid tester for checking specific gravity of lead batteries.

Tester for checking of correct output from Free-Float Satellite EPIRB.

Equipment for testing the performance of Automatic Identification Systems (AIS).

## 6.5 Procedures and instructions

**6.5.1** The service supplier shall have documented procedures and instructions for how to carry out testing and examination of radio equipment. Procedures and instructions for operating of each item of the testing/inspection equipment shall also be kept and be available at all times.

## 6.6 Reporting

**6.6.1** The service supplier should use, complete and sign a report which has been found acceptable by the Society.

## 7 Service suppliers engaged in inspections and maintenance of self-contained breathing apparatus

### 7.1 Extent of engagement

**7.1.1** Inspections and maintenance of self-contained breathing apparatus, emergency escape breathing devices (EEBD).

### 7.2 Extent of approval

**7.2.1** The service supplier shall document and demonstrate that it has knowledge of the equipment and systems sufficient to carry out the inspections and testing of self-contained breathing apparatus according to identified standards and to make the necessary evaluation of the condition of the equipment.

**7.2.2** In demonstrating professional knowledge, the service suppliers are to have an understanding of the operational requirements involved with self-contained breathing apparatus and how these are to be maintained.

**7.2.3** Additionally, the service suppliers are to demonstrate the necessary safety requirements applicable to such equipment.

## 7.3 Reference documents

**7.3.1** The service supplier is to have access to the following documents:

- manufacturers' servicing manuals, servicing bulletins, instructions and training manuals, as appropriate
- type approval certificates showing any conditions which may be appropriate during the servicing and/or maintenance of self-contained breathing apparatus
- the relevant parts of the Society's Rules and Guidelines.

## 7.4 Equipment and facilities

### 7.4.1 General requirements

If service suppliers undertake shore-based inspecting and maintenance, they should maintain and implement procedures for workshop cleanliness, ventilation and arrangement, with due cognisance of the spares and pressurised bottles being stored, to ensure safe and effective working procedures.

Service suppliers undertaking inspecting and maintenance of equipment and systems on board are to provide the appropriate facilities to either complete the work on board or remove the necessary items to their workshops.

### 7.4.2 Equipment

Sufficient and appropriate spares and tools are to be available for repair, maintenance and servicing of self-contained breathing apparatus in accordance with the requirements of the Manufacturers.

These are to include, as required by the self-contained breathing apparatus equipment and/or systems:

- various scales to weigh items
- means to hydrostatically pressure test components/systems/storage bottles
- flow meters, and
- pressure gauges or manometers
- equipment for checking air quality
- recharging facilities for breathing apparatus.

## 8 Service suppliers 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

### 8.1 Extent of engagement

**8.1.1** Luminance measurements on board ships of low location lighting systems using photo luminescent materials.

## 8.2 Reference documents

**8.2.1** The service supplier is to have access to the following documents:

- IMO - International Convention on the Safety of Life at Sea (SOLAS), 74/78 Ch II-2, Pt D, Reg 13.3.2.5 - Marking of escape routes
- IMO - Fire Safety Systems (FSS Code), Chapter 11 - Low-location lighting systems
- IMO - Resolution A.752(18) - Guidelines for the Evaluation, Testing and Application of Low-Location Lighting on Passenger Ships (adopted on 4 November 1993)
- ISO 15370:2010 - Ships and marine technology - Low-location lighting on passenger ships - Arrangement
- MSC/Circ.1168 - Interim guidelines for the testing, approval and maintenance of evacuation guidance systems used as an alternative to low-location lighting systems
- the relevant parts of the Society's Rules and Guidelines.

## 8.3 Qualification

**8.3.1** The operator is to have the following qualifications:

- to have adequate knowledge of the applicable international requirements (namely SOLAS, reg. II-2/13.3.2.5, IMO Res. A.752(18) -Guidelines for the Evaluation, Testing and Application of Low-Location Lighting on Passenger Ships-, ISO 15370-2010, FSS Code Chapter 11)
- to be able to document a theoretical and practical training on board, using equipment specified.

## 8.4 Equipment

**8.4.1** The service supplier shall have the equipment required for correctly performing the testing and measurement of LLL (PL) systems. A record of the equipment used shall be kept. It shall contain information on the Manufacturer and type of equipment, log of maintenance and calibration.

**8.4.2** The measuring instrument shall incorporate a fast-response photometer head with CIE (International Commission on Illumination) photopic correction and have a measurement range of at least  $10^{-4}$  cd/m<sup>2</sup> to 10 cd/m<sup>2</sup>.

## 8.5 Procedures and instructions

**8.5.1** Documented work procedures are at least to contain information on inspection preparation, selection and identification of test locations.

## 8.6 Reporting

**8.6.1** The report shall conform to Annex C of ISO 15370-2010.

## 8.7 Verification

**8.7.1** The service supplier must have the Surveyor's verification of each separate job, documented in the report by the attending Surveyor's signature.

## 9 Service suppliers engaged in sound pressure level measurements of public address and general alarm systems on board ships

### 9.1 Extent of engagement

**9.1.1** Sound pressure level measurements of public address and general alarm systems on board ships.

### 9.2 Reference documents

**9.2.1** The service supplier is to have access to the following documents:

- SOLAS 74/78, Ch III, Pt A, Reg 4 - Evaluation, testing and approval of life-saving appliances and arrangements
- SOLAS 74/78, Ch III, Pt B, Reg 6 - Communications
- International Life-Saving Appliance (LSA) Code, Ch VII, Reg 7.2 - General alarm and public address system
- IMO - Code on Alarms and Indicators, 1995 as amended
- IEC 60651 (2001-10) - Sound level meters
- IEC 61672 - Electroacoustics - Sound level meters
- IEC 61260 - Electroacoustics - Octave-band and fractional-octave-band filters
- the relevant parts of the Society's Rules and Guidelines.

### 9.3 Qualification

**9.3.1** The operator is to have the following qualifications:

- to have adequate knowledge of the applicable international requirements (SOLAS Reg. III/4 and III/6, LSA CODE Chapter VII/7.2, IMO Code on alarms and indicators, 1995)
- to be able to document a theoretical and practical training on board, using equipment specified.

### 9.4 Equipment

**9.4.1** The measuring instrument shall be an integrating sound level meter with frequency analyzer capabilities complying with IEC (International Electrotechnical Commission) 60651 and IEC 61672, type 1 precision class with, at least an A-weighting frequency response curve and 1/3 octave and 1 octave band filters, complying to IEC 61260, as appropriate for the measurements to be carried out. In addition, microphones shall be of the random incidence type, complying with IEC 60651.

### 9.5 Procedures

**9.5.1** Documented work procedures are at least to contain information on inspection preparation, calibration, selection and identification of test locations.

## 9.6 Reporting

**9.6.1** The report shall describe, as a minimum, the environmental conditions of the tests and, for each test location, the ambient noise level or the speech interference level, as appropriate for the measurements to be carried out.

## 9.7 Verification

**9.7.1** The service supplier must have the Surveyor's verification of each separate job, documented in the report by the attending Surveyor's signature.

## 10 Service suppliers engaged in annual performance testing of voyage data recorders (VDR) and simplified voyage data recorders (S-VDR)

### 10.1 Extent of engagement

**10.1.1** Testing and servicing of voyage data recorders (VDR) and simplified voyage data recorders (S-VDR) in accordance with SOLAS Chapter V Regulation 18.8 and IMO - MSC.1/Circular.1222 - Guidelines on Annual Testing of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR), as applicable.

### 10.2 Extent of approval

**10.2.1** The service supplier shall provide evidence that he has been authorised or licensed by the equipment Manufacturer to service the particular makes and models of equipment for which approval is sought.

**10.2.2** Where the service supplier is also the Manufacturer of the voyage data recorder (VDR) or the simplified voyage data recorder (S-VDR) and has elected to apply IMO - MSC.1/Circular.1222 - Guidelines on Annual Testing of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR) in its entirety for the purpose of acting as a service supplier engaged in annual performance testing, the following is to be applied:

- the Manufacturer is responsible for appointing Manufacturer's authorised service stations to carry out annual performance testing.
- the Manufacturer is required to be an approved service supplier and is to satisfy the requirements for service suppliers engaged in annual performance testing of voyage data recorders (VDR) and simplified voyage data recorders (S-VDR), as applicable.
- the Manufacturer's authorised service station is not required to be an approved service supplier.
- the Manufacturer is to demonstrate that IMO - MSC.1/Circular.1222 - Guidelines on Annual Testing of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR) is applied in its entirety.

### 10.3 Reference documents

**10.3.1** The service supplier is to have access to the following documents:

- IMO - International Convention on the Safety of Life at Sea (SOLAS), 74/78, Ch V, Reg 18.8. - Approval, surveys and performance standards of navigational systems and equipment and voyage data recorder
- IMO - MSC.1/Circular.1222 - Guidelines on Annual Testing of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR) - (11 December 2006)
- IMO - Resolution A.861(20) (adopted on 27 November 1997) as amended by IMO Resolution MSC.214(81) and revised by IMO Resolution MSC.333(90) - Performance Standards for Shipborne Voyage Data Recorders (VDRs) -
- IMO - Resolution MSC.163(78) - Performance Standards for Shipborne Simplified Voyage Data Recorders (S-VDRs) - (adopted on 17 May 2004), as amended by IMO Resolution 214(81).

**10.3.2** The service supplier is to have access to applicable industry performance standards, e.g.:

- IEC 61996 - Maritime navigation and radiocommunication equipment and systems - Shipborne voyage data recorder (VDR)
- IEC 61996-2 - Maritime navigation and radio communication equipment and systems - Shipborne voyage data recorder (VDR) - Part 2: Simplified voyage data recorded (SVDR) - Performance requirements, method of testing and required test results.

**10.3.3** The service supplier is also to have access to any documentation specified in the authorisation or license from the equipment Manufacturer.

### 10.4 Equipment and facilities

**10.4.1** The service supplier shall have equipment as specified in the authorisation or license from the equipment Manufacturer.

### 10.5 Procedures

**10.5.1** The service supplier shall have documented procedures and instructions.

**10.5.2** Where the service supplier is also the Manufacturer of the voyage data recorder (VDR) or the simplified voyage data recorder (S-VDR) and has selected to apply IMO - MSC.1/Circular.1222 - Guidelines on Annual Testing of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR) in its entirety for the purpose of acting as a service supplier engaged in annual performance testing, the Manufacturer is to:

- have documented procedures for the assessment and authorisation of the Manufacturer's authorised service stations who carry out annual performance testing

- have documented procedures for the review of the Manufacturer's authorised service stations annual performance test reports, analysis of the voyage data recorder (VDR) and the simplified voyage data recorder (S-VDR) 12-hour log, and the issue of annual performance test certificates to the Owner/operator, and
- maintain a list of the Manufacturer's authorised service stations that can be accessed upon request (by any available means, e.g. via a nominated contact point or from the Manufacturer's website).

### 10.6 Reporting

**10.6.1** The service supplier shall issue a certificate of compliance as specified in the International Convention on the Safety of Life at Sea (SOLAS 1974), as amended, Ch V, Reg 18.8.

**10.6.2** Annual performance test of VDR and S-VDR should be recorded in the form of the model test report given in the Appendix to MSC.1/Circular.1222, signed and stamped by the service supplier and attached to the annual performance test certificate.

**10.6.3** Where the service supplier is also the Manufacturer of the voyage data recorder (VDR) or the simplified voyage data recorder (S-VDR) and has selected to apply IMO - MSC.1/Circular.1222 - Guidelines on Annual Testing of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR) in its entirety for the purpose of acting as a service supplier engaged in annual performance testing, the Manufacturer is to make arrangements for the following:

- review of the Manufacturer's authorised service station annual performance test report
- analysis of the recorder 12-hour log
- checking of the master record/database for the recorder.

**10.6.4** Issue of the annual performance test certificate to the Owner/operator within 45 days of completion of the annual performance test.

## 11 Service suppliers engaged in maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear

### 11.1 Extent of engagement

**11.1.1** Maintenance, thorough examination, operational testing, overhaul and repair of:

- lifeboats (including free-fall lifeboats), rescue boats and fast rescue boats; and
- 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.

## 11.2 Extent of approval

**11.2.1** The content of this procedure applies equally to manufacturers or ship's operator when they are acting as service suppliers.

**11.2.2** 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 shall be approved for these operations for each make and type of equipment for which they provide the service in accordance with IMO Resolution MSC.402(96)/Corr.1 (annex, section 7).

Such approval shall 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 shall be based on [11.3] for each make and type of equipment for which service is to be provided; and
- compliance with provisions (see [11.4], [11.5] and [11.6]).

**11.2.3** In cases where an equipment Manufacturer is no longer in business or no longer provides technical support, the service suppliers may be approved for the equipment, on the basis of prior approval for the equipment and/or long term experience and demonstrated expertise as authorized service providers.

## 11.3 Certification of personnel

### 11.3.1

- a) Personnel for the work specified in [11.1.1] shall 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 should 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.
- c) The training for the personnel shall include practical technical training on thorough examination, operational testing, maintenance, repair and overhaul using the equipment for which the personnel are to be certified. The technical training shall include disassembly, reassembly, correct operation and adjustment of the equipment. Classroom training shall be supplemented by field experience in the operations for which certification is sought, under the supervision of a certified person.
  - d) Prior to issuance of personnel certification, a competency assessment shall be satisfactorily completed, using the equipment for which the personnel are to be certified.
  - e) Upon completion of training and competency assessment, a certificate shall 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 shall clearly be written on the certificate and shall be three years from the date of issue. The validity of any certificate shall be suspended in the event of any shortfall in performance and only revalidated after a further competency assessment.
  - f) A competency assessment shall be conducted to renew the certification. In cases where refresher training is found necessary a further assessment shall be carried out after completion.

## 11.4 Reference documents

**11.4.1** The service supplier is to have access to the following documents:

- IMO - Resolution MSC.402(96) /Corr.1, Requirements for Maintenance, Thorough Examination, Operational Testing, Overhaul and Repair of Lifeboats and Rescue Boats, Launching Appliances and Release Gear
- IMO - Resolution A.689(17), Recommendation on testing of life-saving appliances and, for life-saving appliances installed on board on or after 1 July 1999
- IMO - Resolution MSC.81(70), as amended, revised recommendation on testing of life-saving appliances
- Manufacturer's instructions (including updates, amendments and safety notices) for repair work involving disassembly or adjustment of on-load release mechanisms and davit winches
- Type approval certificate showing any conditions that may be appropriate during the servicing and/or maintenance of lifeboats, launching appliances and on-load release gear.

## 11.5 Equipment and facilities

**11.5.1** The service supplier is to have the following:

- sufficient tools, and in particular any specialized tools specified in the equipment Manufacturer's instructions, including portable tools as needed for work to be carried out on board ship
- access to appropriate parts and accessories as specified by the equipment Manufacturer for maintenance and repair
- for servicing and repair work involving disassembly or adjustment of on-load release mechanisms, availability of genuine replacement parts as specified or supplied by the equipment Manufacturer.

## 11.6 Reporting

**11.6.1** The report shall conform to the requirements of IMO Resolution MSC.402(96) /Corr.1 (annex, paragraph 5.3). When repairs, thorough examinations and annual servicing are completed, a statement confirming that the lifeboat arrangements remain fit for purpose should be promptly issued by the service supplier that conducted the work. A copy of valid documents of certification and authorization as appropriate shall be included with the statement.

## 12 Service suppliers engaged in measurements of noise level on board ships

### 12.1 Extent of engagement

**12.1.1** Sound pressure level measurements on board ships.

### 12.2 Qualification

#### 12.2.1 Supervisor

The supervisor shall have a minimum of two years of experience as an operator in sound pressure level measurements.

#### 12.2.2 Operators

The operator is to have the following qualifications:

- knowledge in the field of noise, sound measurements and handling of measurement equipment
- adequate knowledge of the applicable international requirements (SOLAS Regulation II-1/3-12, as amended, and IMO Code on Noise Levels on Board Ships, as amended)
- at least one-year experience, including participation in a minimum of 5 measurement campaigns as an assistant operator
- training concerning the procedures specified in IMO Code on Noise Levels on Board Ships
- to be able to document theoretical and practical training on board, using a sound level meter.

### 12.3 Procedures and instructions

**12.3.1** The service 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 inspection preparation, selection and identification of sound level measurement locations, calibration checks and report preparation.

**12.3.2** The service supplier is to have access to the following documents:

- SOLAS 1988, as amended (Reg.II-1/3-12)
- Resolution A.468(XII) and IMO Resolution MSC.337(91) Code on Noise Levels on Board Ships
- Resolution A.343(IX) Recommendation on methods of measuring noise levels at listening posts
- the Society's Rules and Guidelines.

## 12.4 Equipment

### 12.4.1 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) (see Note 1), as amended, type/class 1 standard as applicable, or to an equivalent standard acceptable to the Administration (see Note 2).

Note 1: Recommendation for sound level meters.

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

### 12.4.2 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) (see Note 1), as amended, or an equivalent standard acceptable to the Administration.

Note 1: Octave-band and fractional-octave-band filters.

### 12.4.3 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.

### 12.4.4 Calibration

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 17025 (2005), as amended. A record with a complete description of the equipment used shall be kept, including a calibration log.

### 12.4.5 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.

## 12.5 Reporting

**12.5.1** A noise inspection report shall be made for each ship. The report shall comprise information on the noise levels in the various spaces on board. The report shall show the reading at each specified measuring point. The points

shall be marked on a general arrangement plan, or on accommodation drawings attached to the report, or shall otherwise be identified.

The format for noise inspection reports is set out in appendix 1 of IMO Code on Noise Levels on Board Ships and may conform to any other specific requirement of the Society (refer to IMO circular MSC.337(91)).

## 12.6 Verification

**12.6.1** The service supplier must have the Surveyor's verification of each separate job, documented in the report by the attending Surveyor's signature.

## 13 Service suppliers engaged in tightness testing of primary and secondary barriers of gas carriers with membrane cargo containment systems for ships in service

### 13.1 Extent of engagement

**13.1.1** Firms carrying out the following:

- global vacuum testing of primary and secondary barriers
- acoustic emission (AE) testing
- thermographic testing.

### 13.2 Requirements for service suppliers engaged in global testing of primary and secondary barriers

#### 13.2.1 Testing procedures

Testing is to be carried out in accordance with cargo containment system designer's procedures as approved by the Society.

#### 13.2.2 Authorization

The service supplier is to be authorized by the system designer to carry out the testing.

#### 13.2.3 Equipment

Equipment is to be maintained and calibrated in accordance with recognized national or international industrial standards.

#### 13.2.4 Reporting

The report is to contain the following:

- date of testing
- identity of test personnel
- vacuum decay data for each tank
- summary of test results.

### 13.3 Requirements for service suppliers engaged in acoustic emission (AE) testing

#### 13.3.1 Testing procedures

The service supplier is to have documented procedures based upon recognized national or international industrial standards to perform ultrasonic leak test using AE sensors

for the secondary barrier of membrane cargo containment systems. The procedures are to include details of personnel responsibilities and qualification, instrumentation, test preparation, test method, signal processing, evaluation and reporting.

Note 1: The differential pressure during testing should not exceed the containment system designer's limitations.

#### 13.3.2 Qualification

##### a) Supervisor

The responsible supervisor shall be certified to a recognized national or international industrial standard (e.g. level II, ISO-9712 as amended or SNT-TC-1A as amended) and have one-year experience at level II

##### b) Operators

The operators carrying out the acoustic emission (AE) testing shall be certified to a recognized national or international industrial standard (e.g. level I, ISO-9712 as amended or SNT-TC-1A as amended) and shall have adequate knowledge of ship structures sufficient to determine sensor placement

##### c) Evaluation of acoustic emission (AE) testing must be carried out by the supervisor or individuals certified to a recognized national or international industrial standard (e.g. level II, ISO-9712 as amended or SNT-TC-1A as amended) and have one-year experience at level II.

#### 13.3.3 Equipment

Equipment is to be maintained and calibrated in accordance with recognized national or international industrial standards or equipment Manufacturer's recommendations.

#### 13.3.4 Reporting

The report is to contain the following:

- date of testing
- supervisor and operator(s) certifications
- description of time and pressure of each cycle of test
- list and sketch detailing location of possible defects.

### 13.4 Requirements for service suppliers engaged in thermographic testing

#### 13.4.1 Testing procedures

Testing is to be carried out in accordance with the cargo containment system designer's procedures as approved by the Society.

#### 13.4.2 Authorization

The service supplier is to be authorized by the system designer to carry out the testing.

#### 13.4.3 Qualification

##### a) Supervisor

The responsible supervisor shall be certified to a recognized national or international industrial standard (e.g. level II, ISO-9712 as amended or SNT-TC-1A as amended) with additional certification in infrared/thermal testing. SNT-TC-1A certified personnel must provide evidence that training on Level II or above has

been administered by independent training body centrally certified to ASNT or a comparable nationally recognized certification scheme.

b) Operators

The operators carrying out the imaging shall be certified to a recognized national or international industrial standard (e.g. level I, ISO-9712 as amended or SNT-TC- 1A as amended) with additional certification in infrared/thermal testing and shall have adequate knowledge of ship structures sufficient to determine position for each identified image, and of the containment system to understand the basis of the testing. SNT-TC-1A certified personnel must provide evidence that training on Level I or above has been administered by independent training body centrally certified to ASNT or a comparable nationally recognized certification scheme.

c) Evaluation of thermographic images must be carried out by the supervisor or individuals certified to a recognized national or international industrial standard (e.g. level II, ISO-9712 as amended or SNT-TC-1A as amended) with additional certification in infrared/thermal testing. SNT-TC-1A certified personnel must provide evidence that training on Level II or above has been administered by independent training body centrally certified to ASNT or a comparable nationally recognized certification scheme.

#### 13.4.4 Equipment

Thermal cameras and sensors are to be in accordance with the system designer's procedures with regard to sensitivity, accuracy and resolution. Equipment are to be in accordance with recognized standard (IEC, etc.) with regard to their safety characteristics for the use in hazardous areas (in gas explosive atmosphere), maintained and calibrated in accordance with the maker's recommendations.

#### 13.4.5 Reporting

The report is to contain the following:

- date of testing
- supervisor and operator(s) certifications
- differential pressures of all phases
- list and sketch detailing location of thermal indications
- thermographic images of all phases of testing for thermal indications
- evaluation of thermal images indicating possible leaks.

### 14 Service suppliers 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.

#### 14.1 Definitions

##### 14.1.1 Close-up survey

A close-up survey is a survey where details of structural components are within the close visual inspection range of the surveyor i.e. normally within the reach of hand.

##### 14.1.2 Remote Inspection Techniques (RIT)

RIT is a means of survey that enables examination of any part of the structure without the need for direct physical access of the surveyor (refer to IACS REC.42). Remote inspection techniques may include the use of:

- unmanned Aerial Vehicles (UAV)
- drones
- unmanned robot arm
- Remotely Operated Vehicles (ROV)
- climbers
- other means acceptable to the Society.

#### 14.2 Extent of engagement

**14.2.1** Close-up survey of ship's structure and mobile offshore unit's structure by remote inspection techniques. For in-water close-up survey of the internal compartments by Remotely Operated Vehicles (ROV), service suppliers are also to hold separate approval as a "Service suppliers carrying out an in-water survey on ships and mobile offshore units by diver or Remotely Operated Vehicle (ROV)" (see Article [2]).

#### 14.3 Training and qualification of operators

**14.3.1** The service supplier is responsible for the training and qualification of its operators to undertake the remote inspections. UAV Pilots are to be qualified and licensed in accordance with applicable national requirements or an equivalent industrial standard acceptable to the Society.

**14.3.2** Knowledge of the following shall be documented:

- marine and/or offshore nomenclatures
- the structural configuration of relevant ship types and MOUs, including internal structure
- the remote inspection equipment and its operation
- survey plans for examination of hull spaces of various configurations, including appropriate flight plans if using an UAV
- thickness measurement (TM) and non-destructive examination (NDE) in accordance with a recognized National or International Industrial NDE Standard when these are part of the service. Service suppliers undertaking TMs are to hold separate approval as a "Service supplier engaged in thickness measurements on ships or mobile offshore units" (see Article [1]).

#### 14.4 Training plan

**14.4.1** The service supplier is to maintain a documented training plan for personnel. The plan shall include requirements for training in the minimum Rule requirements for the structure of relevant ships types and MOUs, the recognition of structural deterioration (including corrosion, buckling, cracking and deteriorated coatings) and use of the reporting system.

## 14.5 Supervisor

**14.5.1** The supervisor shall be certified according to the recognized national requirements or an equivalent industrial standard (e.g. XXX Level) and shall have a minimum of two years' experience in the inspection of ship's and/or MOU's structure.

## 14.6 Operators

### 14.6.1

The operator carrying out the inspection shall be certified according to the recognized national requirements or an equivalent industrial standard (e.g. YYY Level) and have had at least one year's experience as an assistant carrying out inspection of ship's and/or MOU's structure (including participation in a minimum of five different assignments). The operator of those RIT which require, according to the international and national legislations, to be licensed for their use shall hold valid documentation issued by the appropriate Bodies (e.g. UAV Pilots are to be qualified and licensed in accordance with applicable national requirements).

## 14.7 Equipment

**14.7.1** The following shall be available:

- remotely operated platform with data capture devices capable of operation within an enclosed space
- means of powering the platforms with sufficient capacity to complete the required inspections, including spare batteries if applicable
- data collection devices which may include cameras capable of capturing in high definition both video images and still images
- illumination equipment
- high definition display screen with live high definition feed from inspections cameras
- (when this is part of the RIT)
- means of communication
- data recording devices, as applicable
- equipment for carrying out thickness gauging and/or non-destructive testing, as relevant to the work to be performed (when this is part of the service).

## 14.8 Procedures and guidelines

**14.8.1** The service supplier shall have documented operational procedures and guidelines for how to plan, carry out and report inspections; how to handle/operate the equipment; collection and storage of data. These shall include:

- requirements for preparation of inspection plans (when UAV are part of the equipment, flight plans shall be included)
- operation of the remotely operated platforms
- operation of lighting
- calibration of the data collection equipment
- operation of the data collection equipment

- two-way communication between the operator, platform, Surveyor, other personnel such as support staff and ships officers and crew
- guidance of the operator to provide complete coverage of the structure to be inspected
- guidance for the maintenance of the remotely operated platforms, data capture and storage devices and display screens, as applicable
- requirements for the collection and validation of data
- if data is to be stored, then requirements for location attribution (geo-tagging), validation and storage of data
- requirements for the reporting of inspections, including the recording of damages and defects found during inspection and repair work.

## 14.9 Documentation and records

**14.9.1** The service supplier shall maintain the following:

- records of training
- operator statutory and regulatory certificates and licenses
- equipment register for UAVs, robots, data collection devices, data analysis devices and any associated equipment necessary to perform inspections
- equipment maintenance manuals and records / logbook
- records of calibration
- UAV / robot operation logbook.

## 14.10 Verification

**14.10.1** The service supplier must have the Surveyor's verification of each separate job, documented in the report by the attending Surveyor(s) signature.

## 15 Service suppliers engaged in visual and/or sampling checks and preparation of Inventory of Hazardous Materials (IHM).

### 15.1 Extent of engagement

**15.1.1** Visual and/or sampling checks (targeted and/or random sampling) onboard ships, use appropriate laboratories engaged in the testing of samples, development of IHM.

### 15.2 Extent of approval

**15.2.1** Service Suppliers engaged in visual and/or sampling checks are to have professional knowledge of hazardous materials licensed as required and, are trained and equipped experts, in particular with regards to the evaluation and sampling of hazardous materials and materials containing hazardous materials as:

- a) Appendix 1 of the Annex of Hong Kong Convention & Annex I of REGULATION (EU) No 1257/2013:
  - asbestos
  - polychlorinated biphenyls (PCB)
  - ozone depleting substances (ODS)

- anti-fouling compounds and systems
  - perfluorooctane sulfonic acid (PFOS).
- b) Appendix 2 of the Annex of Hong Kong Convention & Annex II of REGULATION (EU) No 1257/2013:
- cadmium and cadmium compounds,
  - hexavalent chromium and hexavalent chromium compounds
  - lead and lead compounds
  - mercury and mercury compounds
  - polybrominated biphenyl (PBBs)
  - polybrominated diphenyl ethers (PBDEs)
  - polychlorinated naphthalenes (more than 3 chlorine atoms)
  - radioactive substances
  - certain shortchain chlorinated paraffins (alkanes, C10-C13, chloro)
  - brominated flame retardant (HBCDD).

Service Suppliers shall use appropriate laboratories engaged in the testing of samples which should be accredited or certified according to recognized standards (ISO/IEC 17025 or equivalent).

### 15.3 Procedures

**15.3.1** Service suppliers shall have a documented work and safety procedures that contain at least the following:

- information on survey preparation
- safety procedures relevant to the hazards
- selection and identification of visual and/or sampling check locations
- material preparation
- sample removal
- reinstatement of safe conditions for the material once the sample is taken
- sample storage, identification and transport requirements, and
- report preparation and content.

Service suppliers shall implement quality processes and procedures preferably in accordance with ISO 17020 or any equivalent standard covering all the relevant activities of the company.

### 15.4 Qualification and training of personnel

**15.4.1** Personnel carrying out visual and/or sampling checks of relevant hazardous materials shall have professional knowledge of ship structures, equipment, hazardous materials and materials used for ship structures and equipment, taking of samples handling of such materials.

Such personnel shall provide evidence of all the necessary training, qualifications, licenses or equivalent thereto and the work and safety procedures for visual and/or sampling checks and the handling of specified hazardous material(s),

in accordance with recognized national or international standards or the equivalent thereto, and other associated work practices as applicable.

### 15.5 Equipment and facilities

**15.5.1** Specific equipment used on-board the ship for the purpose of sampling checks should be duly calibrated and/or certified according to recognized standards.

Laboratory to carry out specific tests should be accredited in accordance with ISO/IEC 17025 or an equivalent standard for the purpose of conducting specific tests for Hazardous Materials included in the Hong Kong Convention and REGULATION (EU) No 1257/2013.

### 15.6 Reference documents

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

- Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 as set out in final Act of the Conference SR/CONF/46
- Regulation (EU) No 1257/2013 of the European Parliament and of the Council on ship recycling
- EMSA's Best Practice Guidance on the Inventory of Hazardous Materials
- 2015 Guidelines for the development of the Inventory of Hazardous Materials as set out in the annex to resolution MEPC.269(68)
- 2012 Guidelines for the survey and certification of ships under the Hong Kong Convention, as set out in the annex to the resolution MEPC.222(64)
- ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories
- ISO/IEC 17020 Conformity assessment – Requirements for the operation of various types of bodies performing inspection
- IACS Rec. 113 (Rev.1 Oct 2012) - Expert Parties Engaged in Visual and/or Sampling Checks for Preparation of Inventory of Hazardous Materials.

### 15.7 Development of Inventory and reporting

**15.7.1** Development and reporting shall be based on the 2015 IMO Guidelines for the development of the Inventory of Hazardous Materials, as amended and EMSA's Best Practice Guidance on the Inventory of Hazardous Materials.

Development process and assessment report for Part I of the Inventory shall be annexed as appropriate to the inventory.

Inventory shall be developed on the basis of the standard format set out in appendix 2 the 2015 IMO Guidelines for the development of the Inventory of Hazardous Materials, as amended and shall make reference to Regulation (EU) No 1257/2013, as applicable.

Expert parties engaged in visual and/or sampling checks shall document each job by including the signatures of operator's designated responsible person in the final report for verification purposes.

## 16 Service suppliers engaged in noise and vibrations measurements related to COMF notation

### 16.1 Extent of engagement

16.1.1 Noise and vibrations measurement and reporting within the scope of the additional class notation **COMF**.

### 16.2 Reference document

16.2.1 The service supplier shall have access to the relevant parts of the Society's Rules and Guidelines.

### 16.3 Qualification

#### 16.3.1 Operator

The technician carrying out the measurements shall have at least two years experience and have knowledge about the equipment used.

### 16.4 Equipment

16.4.1 The service supplier shall have the major and auxiliary equipment required for correctly performing the inspection. A record of the equipment used shall be kept. The record shall contain information on the Manufacturer and type of equipment, and a log of maintenance and calibrations.

Measurement and calibration equipment are to meet the requirements of:

- ISO 2923, IEC 61672-1, IEC 61260 and IEC 60942 for noise, and
- ISO 20283-5 or ISO 6954:1984 and ISO 8041 for vibration.

### 16.5 Procedures

16.5.1 The service supplier shall have documented operational procedures and guidelines for how to carry out the inspection and how to handle the equipment.

16.5.2 Prior to starting any measurement, the service supplier has to prepare and send dedicated measurements procedures to the Society, for approval.

### 16.6 Conflict of interest

16.6.1 If the service supplier was involved in the design/technical assistance within the scope of the additional class notation **COMF** of the ship surveyed, the measurements are witnessed by the Society.

### 16.7 Verification

16.7.1 The service supplier must have the Society's validation of each separate procedure, documented by a stamp.

## 16.8 Reporting

16.8.1 The service supplier is to use the Society's report framework in order to prepare the measurements report and to submit it to the Society for final approval.

## 17 Service suppliers engaged in underwater radiated noise measurements related to URN notation

### 17.1 Extent of engagement

17.1.1 Noise and vibrations measurement and reporting within the scope of the additional class notation **URN**.

### 17.2 Reference document

17.2.1 The service supplier shall have access to the relevant parts of the Society's Rules and Guidelines.

### 17.3 Qualification

#### 17.3.1 Operator

The technician carrying out the measurements shall have at least two years experience and have knowledge about the equipment used.

### 17.4 Equipment

17.4.1 The service supplier shall have the major and auxiliary equipment required for correctly performing the inspection. A record of the equipment used shall be kept. The record shall contain information on the Manufacturer and type of equipment, and a log of maintenance and calibrations.

### 17.5 Procedures

17.5.1 The service supplier shall have documented operational procedures and guidelines for how to carry out the inspection and how to handle the equipment.

17.5.2 Prior to starting any measurement, the service supplier has to prepare and send dedicated measurements procedures to the Society, for approval.

### 17.6 Conflict of interest

17.6.1 If the service supplier was involved in the design/technical assistance within the scope of the additional class notation **URN** of the ship surveyed, the measurements are witnessed by the Society.

### 17.7 Verification

17.7.1 The service supplier must have the Society's validation of each separate procedure, documented by a stamp.

## 17.8 Reporting

**17.8.1** The service supplier is to use the Society's report framework in order to prepare the measurements report and to submit it to the Society for final approval.

## 18 Firms engaged in cable transit seal systems inspection on ships and mobile offshore units

### 18.1 Extent of engagement

**18.1.1** Inspection of the Cable Transit Seal Systems for compliance with the relevant approval certificates and product installation manuals, (types of penetrating cables, dimensions, fill ratio and insulation details, as applicable).

### 18.2 Extent of approval

**18.2.1** The contents of this procedure apply equally to manufacturers or shipyards when they are acting as Service Suppliers.

**18.2.2** Any Service Supplier engaged in the inspections of cable transit seal systems is to be qualified in these inspections for each make and type of equipment for which they provide the inspection, and provide manufacturers documentary evidence that they have been so authorized or they are certified in accordance with an established system for training and authorization. Such qualification 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 [18.3] for each make and type of equipment for which inspection is to be provided, and
- compliance with provisions of paragraphs [18.4], [18.5] and [18.6].

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

### 18.3 Qualifications and training of personnel

**18.3.1** Personnel for the work specified in [18.1.1] are to be trained and qualified in the inspection for which they are authorized, for each make and type of equipment for which they provide the inspection.

**18.3.2** The education for initial certification of personnel is to be documented and addressed, as a minimum:

- Procedures and instructions for the inspection of the cable transit seal systems
- Common problems found with the initial installation and in-service inspections of cable transit seal systems
- Relevant rules and regulations, including International Conventions
- Procedures for reporting on initial installation and in-service inspections of cable transit seal systems in the Cable Transit Seal Systems Register.

**18.3.3** The education and training for the personnel are to include practical technical training on actual inspection using the cable transit seal systems for which the personnel are to be certified. The technical training is to include disassembly, reassembly and adjustment of the equipment. Classroom training is to be supplemented by field experience in the inspections for which certification is sought, under the supervision of an experienced senior certified person.

**18.3.4** At the time of initial certification and at each renewal of certification, the service supplier is to provide documentation to verify personnel's satisfactory completion of a competency assessment using the equipment for which the personnel are certified.

**18.3.5** The Service Supplier is to require refresher training as appropriate to renew the certification.

### 18.4 Reference documents

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

- Manufacturer's servicing manuals, servicing bulletins, instructions and training manuals as appropriate.
- Type Approval certificate showing any conditions that may be appropriate during the installation or maintenance of the cable transit seal system.

### 18.5 Equipment and facilities

**18.5.1** The Service Supplier is to have access to the following:

- Sufficient tools, and in particular any specialized tools specified in the equipment manufacturer's instructions, including portable tools as needed for work to be carried out on board ship.

### 18.6 Reporting

**18.6.1** On completion of inspection, the Service Supplier will issue a report confirming the condition of the Cable Transit Seal System. They will also record the results of their inspection in the Cable Transit Seal System Register.



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