

Indian Register of Shipping

**Report No.:** 

#### **REPORT OF SAFETY EQUIPMENT SURVEY**

Type of Survey: Initial Survey / Annual Survey / Periodical Survey / Intermediate Survey / Renewal Survey / Change of Flag Survey / General Examination\* for Cargo Ships (including Oil, Chemical Tankers & Gas Carriers) / Passenger Ships\*

| Name of ship:   | I. R. No.:  |
|-----------------|-------------|
| Port of Survey: | Report No.: |

Use "Y" for yes / satisfactory, "NO" for no, "N" for not satisfactory / see recommendation in continuation sheet and "-" for not applicable.

# NOTES: 1 Requirements for a Periodical Survey are the same as that of a Renewal Survey except examination of the deck water seal internally and checking the condition of non-return valve on board oil tankers. 2 Each lifeboat is required to be launched and manoeuvred at least once every 3 months. 3 Falls used in launching appliances/ accommodation ladders/ gangways shall be inspected periodically with special regard for areas passing through sheaves, and renewed when necessary due to deterioration of the falls or at intervals of not more than 5 years, whichever is earlier. 4 For Sr. No 2.14, 2.15, and 2.16: Examination and operational tests to be done by competent person approved by the Administration in presence of surveyor. Records and approval of competent person along with its validity to be sighted. For lifeboats built after 01 July 2010, the mass of an average person is to be taken as 75 kg for a lifeboat intended for passenger ship and 82.5 for a lifeboat intended for a cargo ship.

- 5 Please refer relevant Flag State Instructions for maintenance, inspection and pressure testing of LSA and FFA equipment.
- 6 Ships may be fitted with equipment over and above her requirement. Same to be maintained and included in report

#### 1. GENERAL

| -   |  |  |
|-----|--|--|
| 1.1 | Had any changes been made or new equipment been installed which would effect the validity of the Cargo Ship Safety Equipment Certificate?  |  |
| 1.2 | Copy of the documentation where alternative design and arrangements have been approved by the administration is available on board including re-evaluation due to change of conditions.  |  |
| 1.3 | All instructions and/or notices including the Emergency Station Muster List and Training Manual were posted in the appropriate language as required and to the Master's satisfaction.  |  |
| 1.4 | All other Statutory Certificates and the Class Certificate were valid at the time of survey & Continuous Synopsis Record is provided.  |  |
| 1.5 | Was there a report of any fire necessitating the operation of the fixed fire extinguishing systems or the portable fire extinguishers, since the last Safety Equipment Survey? (If "YES" give details in section 35)   |  |
| 1.6 | LSA items are marked with the name of ship, call sign, port of registry etc., as required  |  |
| 1.7 | Confirmation that LSA which are required to be float free, have been installed in location not obstructed by other structure/s in the vicinity and it can float free in case the vessel sinks.   |  |
| 1.8 | For a passenger ship, confirmation that a list of all limitations on the operation of the ship including<br>exemptions from any of these regulations, restrictions in operating areas, weather restrictions, sea<br>state restrictions, restrictions in permissible loads, trim, speed and any other limitations, whether<br>imposed by the Administration or established during the design or the building stages, has been<br>compiled, documented and readily available to the Master. The list has been kept up to date. |  |
| 1.9 | Confirmation that emergency source of electrical power is available for equipment & systems which are equipped to be supplied by emergency power as per convention requirements (Eg. emergency lighting, navigation light and other lights as per COL REGS, communication equipment, navigational equipment, fire pumps, fire detection and fire alarm system, steering gear, etc., as applicable).  |  |

#### 2. DOCUMENTATION

| 2.1     | Fire control Plans (including duplicate set permanently stored in a prominently marked weathertight enclosure outside the deck house) properly posted  |        |  |  |  |  |  |  |  |
|---------|--|--------|--|--|--|--|--|--|--|
| 2.2     | Muster List  |        |  |  |  |  |  |  |  |
| 2.3     | Adequate and up-to-date nautical charts/ ECDIS, sailing directions, lists of lights, Notices to<br>Mariners, tide tables and all other nautical publications necessary for the intended voyage.<br>(Note: In case of electronic publications, the publications are required to be issued officially by an Administration, authorized<br>hydrographical organization or another relevant approved organization and required backup system is provided)  |        |  |  |  |  |  |  |  |
| 2.4.1   | International Code of Signals Edition:   |        |  |  |  |  |  |  |  |
| 2.4.2   | IAMSAR Manual Volume III Edition:  |        |  |  |  |  |  |  |  |
| 2.5.1   | Practice Musters and Drills. (It is also confirmed that arrangement for mustering crew/passengers are<br>in order and the person in charge of survival craft and in the case of lifeboats the second in-command<br>have a list of the survival craft crew)-FCP Plan Approved byonLSA Plan Approved byon  |        |  |  |  |  |  |  |  |
| 2.5.2   | Confirmed that new crew member with assigned emergency duties had been familiarised with these duties before the voyage began.   |        |  |  |  |  |  |  |  |
| 2.5.3   | Confirmed that where the ship was engaged on a voyage where passengers were scheduled to be on board for more than 24 h, musters of the newly embarked passengers had taken place prior to departure.  |        |  |  |  |  |  |  |  |
| 2.5.4   | Confirmed that whenever new passengers had embarked, a passenger safety briefing had been given immediately before departure.  |        |  |  |  |  |  |  |  |
| 2.5.5   | Confirmation that Passenger ships have on board a plan for cooperation with appropriate search and rescue services (SAR Plan) in event of an emergency.  |        |  |  |  |  |  |  |  |
| 2.6.1   | Date of last fire and boat drills (which should include inspection of those items of operating equipment included in the check list as contained in the instructions, or on-board maintenance) (Every crew member shall participate in at least one abandon ship drill and one fire drill every month. The drills of the crew shall take place within 24 h of the ship leaving a port if more than 25% of the crew have not participated in abandon ship and fire drills on board that particular ship in the previous month. When a ship enters service for the first time, after modification of a major character or when a new crew is engaged, these drills shall be held before sailing.) Fire drill |        |  |  |  |  |  |  |  |
| 2.6.2   | Date of visual inspection of survival craft, rescue boats/ work boat, launching appliances, testing of lin<br>and rescue boats / work boat engine, and testing of the general alarm system (Required wo  |        |  |  |  |  |  |  |  |
| 2.6.3   | Enclosed Space entry   |        |  |  |  |  |  |  |  |
| 2.6.3.1 | Date of last enclosed space entry and rescue drill carried out (required at least once every two mo  | onths) |  |  |  |  |  |  |  |
| 2.6.3.2 | Confirmation that procedures for entering enclosed spaces for the key ship board operations concerning the safety of the personnel are available onboard.  |        |  |  |  |  |  |  |  |
| 2.6.3.3 | Confirmation that crew is familiarized with enclosed space entry & rescue drill and record of training available.  |        |  |  |  |  |  |  |  |
| 2.6.4   | Date of last emergency steering drill carried out (required at least once every three months)  |        |  |  |  |  |  |  |  |
| 2.7     | Log book entries as required by Chapter III and the Master aware of the intent of chapter II-2. "In all new and existing ships fire extinguishing appliances shall be kept in good order and available for immediate use at all times during the voyage"   |        |  |  |  |  |  |  |  |
| 2.8     | Boat's equipment examined at that time and found to be complete. (It is further confirmed that monthly inspections of all survival craft and rescue boats/ work boat including engines and launching appliances plus the general alarm system are being carried out and logged )   |        |  |  |  |  |  |  |  |
| 2.9.1   | Dates when lifeboat falls renewed (See Note 3 on Page 1)     BOAT     RENEWED       1     1  |        |  |  |  |  |  |  |  |
|         | 2  |        |  |  |  |  |  |  |  |
|         |  |        |  |  |  |  |  |  |  |
|         | 3 4  |        |  |  |  |  |  |  |  |
| 202     |  |        |  |  |  |  |  |  |  |
| 2.9.2   | Date Rescue boat/ work boat falls last renewed   |        |  |  |  |  |  |  |  |
| 2.9.2.1 | Date falls renewed for 2 <sup>nd</sup> Rescue boat (required for passenger ships above 500 GT)   |        |  |  |  |  |  |  |  |

| 2.9.3     | Dates w              | hen liferaft dav   | it falls renewed                | I RAFT        |                 | DATE          | RENEWED                        |                  |  |  |  |  |
|-----------|----------------------|--|---------------------------------|---------------|-----------------|---------------|--------------------------------|------------------|--|--|--|--|
|           |                      | e 3 on Page 1)   |                                 | 1             | 1               |               |                                |                  |  |  |  |  |
|           |                      |  |                                 | 2             |                 |               |                                |                  |  |  |  |  |
|           |                      |  |                                 | 3             |                 |               |                                |                  |  |  |  |  |
|           |                      |  |                                 | 4             |                 |               |                                |                  |  |  |  |  |
| 2.9.4     | Record of            | f periodical inspe   | ection of lifeboat              |               | ined            |               |                                |                  |  |  |  |  |
| 2.10.1    |                      | asion davit launc  |                                 |               |                 | on/ turned ou | t/ launched a                  | nd manoeuvred    |  |  |  |  |
|           | Boat                 | ,  | stowed position                 | Turnad ou     | t (Monthly)     | Launahad      | and manage                     | vred in water (3 |  |  |  |  |
|           | Doat                 |  | nly for cargo                   | Turned Ou     | t (Montiny)     | monthly)      | and manoeu                     | vied in water (5 |  |  |  |  |
|           | 1                    |  |                                 |               |                 |               |                                |                  |  |  |  |  |
|           | 2                    |  |                                 |               |                 |               |                                |                  |  |  |  |  |
|           | 3                    |  |                                 |               |                 |               |                                |                  |  |  |  |  |
|           | 4                    |  |                                 |               |                 |               |                                |                  |  |  |  |  |
| 2.10.2    | Last occa            | asion free fall life   | boat lowered/ la                | unched and    | manoeuvred      |               |                                |                  |  |  |  |  |
|           | Boat                 | means* and   | hed/ lowered by manoeuvred in   |               |                 |               | imulated lau<br>red in water ( | (6 monthly)      |  |  |  |  |
|           |                      | monthly)   |                                 |               | <u> </u>        |               |                                |                  |  |  |  |  |
|           | 1                    |  |                                 |               |                 |               |                                |                  |  |  |  |  |
|           | 2                    |  |                                 |               |                 |               |                                |                  |  |  |  |  |
| 2.11.1    | not to exc           | asion rescue boat ceed 3 months)   |                                 |               |                 |               | -                              |                  |  |  |  |  |
| 2.11.2    |                      | Date 2 <sup>nd</sup> Rescue boat (required for passenger ships above 500 GT) was launched and manoeuvred |                                 |               |                 |               |                                |                  |  |  |  |  |
| 2.12      | Marine E             | Evacuation Syster  | n (if provided on               | ro-ro passe   | nger ships/ p   | assenger ship | os) last deploy                | /ed              |  |  |  |  |
|           | MES                  | Test deployme<br>remaining with  | ent (at least 50% in 12 months) | 6 after insta | allation and    | Each every    | 6 years                        |                  |  |  |  |  |
|           | 1                    |  |                                 |               |                 |               |                                |                  |  |  |  |  |
|           | 2                    |  |                                 |               |                 |               |                                |                  |  |  |  |  |
| 2.13      | Servicing system:    | g of Inflatable L  | iferafts, Hydros                | tatic release | unit, inflat    | able life jac | kets and mar                   | rine evacuation  |  |  |  |  |
| 2.13.1    |                      | and HRU (Incl  | ude in the table                | details of an | y liferaft stor | wed forward   | or aft)                        |                  |  |  |  |  |
| Sr. no    | Makers               | No. of   |                                 |               | Location        | Servicing     | Date HRU                       | HRU Expiry       |  |  |  |  |
|           | Name &               | Persons  |                                 |               | on board        | Agent         | Serviced                       | / Next           |  |  |  |  |
|           | Serial               |  | Г                               | Due           |                 |               |                                | Servicing        |  |  |  |  |
|           | Number of            | of   |                                 |               |                 |               |                                | Due              |  |  |  |  |
|           | Liferaft             |  |                                 |               |                 |               |                                |                  |  |  |  |  |
| i         |                      |  |                                 |               |                 |               |                                |                  |  |  |  |  |
| ii        |                      |  |                                 |               |                 |               |                                |                  |  |  |  |  |
| iii       |                      |  |                                 |               |                 |               |                                |                  |  |  |  |  |
| iv        |                      |  |                                 |               |                 |               |                                |                  |  |  |  |  |
| v         |                      |  |                                 |               |                 |               |                                |                  |  |  |  |  |
| Liferafts | for easy side        | to side transfer a   | are less than 185               | kg            |                 |               |                                |                  |  |  |  |  |
| 2.13.2    | Servicing            | g of inflatable life   | jackets carried o               |               |                 |               |                                |                  |  |  |  |  |
| 2.13.3    |                      | g of Marine l<br>lifferent dates if i  |                                 | tem carried   | l out on        |               |                                |                  |  |  |  |  |
| 2.14      | Davit lau            | nched lifeboat/ li   | feraft*                         |               |                 |               | Annu                           | al 5 yearly      |  |  |  |  |
| 2.14.1    |                      | n examination o<br>maximum loweri  |                                 |               |                 | est of the w  | inch                           |                  |  |  |  |  |
|           |                      | Provider:  |                                 |               |                 | ,             | Cert                           |                  |  |  |  |  |
| 2.14.2    | Thorough<br>launched | n examination a  | ind operational                 | test of on    | load release    | e gear for d  | lavit                          |                  |  |  |  |  |
|           | Service P            | Provider:  |                                 |               |                 |               |                                |                  |  |  |  |  |
|           | 110.:                |  | , v                             | and upto: _   |                 |               |                                |                  |  |  |  |  |

| 2.14.3 | Thorough examination of launching appliances, and dynamic test of the winch   |               |       |       |  |  |  |  |  |  |
|--------|---|---------------|-------|-------|--|--|--|--|--|--|
|        | brake at maximum lowering speed for davit launched liferafts  |               |       |       |  |  |  |  |  |  |
|        | Service Provider:, Approved by:, Cert   |               |       |       |  |  |  |  |  |  |
|        | No.:, Valid upto:   |               |       |       |  |  |  |  |  |  |
| 2.14.4 | Thorough examination and operational test of automatic release hooks for davit  |               |       |       |  |  |  |  |  |  |
|        | launched liferaft.  |               |       |       |  |  |  |  |  |  |
|        | Service Provider:, Approved by:, Cert   |               |       |       |  |  |  |  |  |  |
|        | No.:, Valid upto:   |               |       |       |  |  |  |  |  |  |
| 2.15   | Free fall lifeboat:   | 1             |       |       |  |  |  |  |  |  |
| 2.15.1 | Thorough examination and operational test of release system for free fall lifeboat  |               |       |       |  |  |  |  |  |  |
|        | Service Provider:, Approved by:, Cert   |               |       |       |  |  |  |  |  |  |
| 2.16   | No.:, Valid upto:<br>Dedicated Rescue boat:   |               |       |       |  |  |  |  |  |  |
| 2.16.1 |   |               |       |       |  |  |  |  |  |  |
| 2.10.1 | Thorough examination of launching appliances, and dynamic test of the winch<br>brake at maximum lowering speed for dedicated rescue boats | •••••         |       | ••••  |  |  |  |  |  |  |
|        | Service Provider:, Approved by:, Cert   |               |       |       |  |  |  |  |  |  |
|        | No.:, Valid upto:   |               |       |       |  |  |  |  |  |  |
| 2.16.2 | Thorough examination and operational test of on load release gear for dedicated   |               |       |       |  |  |  |  |  |  |
|        | rescue boat.  |               |       |       |  |  |  |  |  |  |
|        | Service Provider:, Approved by:, Cert   |               |       |       |  |  |  |  |  |  |
|        | No.:, Valid upto:   |               |       |       |  |  |  |  |  |  |
| 2.16.3 | Date of last service of inflated rescue boat  |               |       |       |  |  |  |  |  |  |
|        | Service Provider:, Approved by:,  |               |       |       |  |  |  |  |  |  |
|        | Cert No.:, Valid upto:  |               |       |       |  |  |  |  |  |  |
| 2.16.4 | Confirmation that rescue boat limit switch working in good order  |               |       |       |  |  |  |  |  |  |
| 2.16.5 | Work boats (Indian ships on coast and having work boat in lieu of rescue boat)  | Annual        | 5 ye  | arly  |  |  |  |  |  |  |
| 2.16.6 | Man Overboard drill and Operational test for Work boats and launching appliances  |               |       |       |  |  |  |  |  |  |
| 2.16.7 | Load test of the work boat and launching appliances to Maximum Working Load   |               |       |       |  |  |  |  |  |  |
| 2.17   | Hydraulic pressure testing of cylinders of lifeboat air support system, where provi<br>(Required every 5 years)                           | ided          |       |       |  |  |  |  |  |  |
| 2.18.1 | A table or curve of residual deviations for the magnetic compass provided and Con<br>Record Book being kept up-to-date.                   | mpass Devia   | tion  |       |  |  |  |  |  |  |
| 2.18.2 | Diagram of Radar installation shadow sector is displayed.   |               |       |       |  |  |  |  |  |  |
| 2.19   | Instructions for on board maintenance of Life Saving appliances - easily understood   | and illustr   | ated  |       |  |  |  |  |  |  |
|        | wherever possible   |               |       |       |  |  |  |  |  |  |
| 2.20.1 | Verification of compliance as per Safe Manning Document or equivalent issued by A   | dministratio  | n     |       |  |  |  |  |  |  |
|        | (including STCW certificates of Crew, officers and with necessary endorsements)   |               |       |       |  |  |  |  |  |  |
| 2.20.2 | Verification with respect to availability of sufficient number of trained persons fo  |               |       |       |  |  |  |  |  |  |
|        | manning the survival crafts including availability of sufficient crew member (d   | leck officers | s or  |       |  |  |  |  |  |  |
| 2.21.1 | certificated persons) for operating the survival crafts and launching arrangements  |               |       |       |  |  |  |  |  |  |
|        | Maintenance plan for fire fighting systems and appliances available on board  | hting and my  | hlia  |       |  |  |  |  |  |  |
| 2.21.2 | For ships carrying more than 36 passengers, maintenance plan for low-location ligh<br>address systems available on board                  | nung and pu   | idite | ••••• |  |  |  |  |  |  |
| 2.21.3 | For tankers, maintenance plan for inert gas system, deck foam system, fire safety   | arrangemer    | nt in |       |  |  |  |  |  |  |
| 2.21.5 | cargo pump room and flammable gas detectors available on board  | urrungemen    |       |       |  |  |  |  |  |  |
| 2.22   | Fire safety operational booklets have been provided   |               |       |       |  |  |  |  |  |  |
| 2.23   | Record of navigational activities   |               |       |       |  |  |  |  |  |  |
| 2.23.1 | Record of daily reporting   |               |       |       |  |  |  |  |  |  |
| 2.24.1 | SOLAS Training Manual (for L.S.A. & F. F. A.)   |               |       |       |  |  |  |  |  |  |
| 2.24.2 | Where the ship is fitted with a marine evacuation system, an on-board training aid  | in the use of | the   |       |  |  |  |  |  |  |
|        | system has been provided.   |               |       |       |  |  |  |  |  |  |
| 2.25   | Procedures required for data retrieval from VDR / S-VDR included in the ship's safe system.   | ety managen   | nent  |       |  |  |  |  |  |  |
| 2.26   | On passenger ships: Decision support system for master on the navigation bridge   |               |       |       |  |  |  |  |  |  |
| 2.27   | Operational and, where appropriate, maintenance manuals for all navigational equipment provided   |               |       |       |  |  |  |  |  |  |

2.28 Ship specific plans and procedures for recovery of persons from water available on board. (Applicable to ships built on or after 1 July 2014 when they are put into operation, For existing ships applicable from first periodical/ renewal survey carried out on or after 1 July 2014)

#### **3. SAFETY OF NAVIGATION**

| 3.1      | Standard Magnetic Compass   |  |
|----------|---|--|
| 3.1.1    | Spare Magnetic Compass  |  |
| 3.2      | Gyro Compass at main steering position  |  |
| 3.2.1    | Gyro Compass heading repeaters  |  |
| 3.2.2    | Gyro Compass bearing repeaters  |  |
| 3.3      | Heading or Track Control System   |  |
| 3.4      | Pelorus or compass bearing device   |  |
| 3.5      | Transmitting Heading Device   |  |
| 3.6      | Means of correcting heading and bearings  |  |
| 3.7      | Electronic Chart Display and information system (ECDIS) / Nautical charts*<br>Performance Standard of ECDIS: MSC.232(82) / A.871(19) as amended***<br>** ECDIS installed on or after 1 January 2009 to comply with MSC.232(82), prior to date may comply with A.871(19) as<br>amended |  |
| 3.7.1    | Back up arrangements for ECDIS: 2 <sup>nd</sup> ECDIS/ Nautical charts*   |  |
| 3.8      | Nautical publications   |  |
| 3.9      | Receiver for a Global Navigation Satellite System / a Terrestrial Radio Navigation System   |  |
| 3.10.1   | Radar 9GH <sub>Z</sub> (3 cm)   |  |
| 3.10.2   | Second Radar {3 cm (9 GHz)/ 10 cm(3 GHz)*}  |  |
| 3.11     | Automatic Radar Plotting Aids (ARPA) for (3.10.1/ 3.10.2/ both*)  |  |
| 3.12.1   | Auto Tracking Aid (ATA)   |  |
| 3.12.2   | Second automatic tracking aid   |  |
| 3.13     | Electronic Plotting Aid (EPA)   |  |
| 3.14     | Automatic Identification System (AIS); Annual test carried out on   |  |
| 3.14.1   | Long Range Identification & Tracking System (Valid Conformance Test report available)   |  |
| 3.15.1   | Voyage Data Recorder (VDR) Annual performance Test carried out on   |  |
| 3.15.1.1 | If float free type or arrangements provided (Mandatory for VDR type approved as per MSC.333(90), this provision is also mandatory for some flag – refer flag instructions)  |  |
| 3.15.2   | Simplified voyage data recorder (SVDR) Annual Performance Test carried out on   |  |
| 3.15.2.1 | If float free type or arrangements provided (This provision is mandatory for some flag – refer flag state instruction)  |  |
| 3.16.1   | Speed and Distance measuring device(through water)  |  |
| 3.16.2   | Speed and Distance measuring device (Over ground in fwd and athwart ship direction)   |  |
| 3.17     | Echo Sounding Device  |  |
| 3.18     | Rudder Angle Indicator, RPM Indicator and Pitch Indicator*  |  |
| 3.19     | Rate of turn indicator  |  |
| 3.20     | Sound reception System for totally enclosed navigation bridge   |  |
| 3.21     | Telephone to Emergency Steering Position  |  |
| 3.22     | Bridge Navigation Watch Alarm System (BNWAS) Performance Standard: MSC.128(75) <sup>††</sup><br><sup>††</sup> For BNWAS installed after 1 July 2003, However BNWAS installed prior to 1 July 2011 may be exempted by administration   |  |

#### 4. SIGNALLING APPARATUS:

|     | The following found in satisfactory condition:        |  |
|-----|---|--|
| 4.1 | Daylight signaling lamp and source of power           |  |
| 4.2 | Forecastle bell                                       |  |
| 4.3 | Gong  |  |
| 4.4 | Ship's Whistle  |  |
| 4.5 | Three black ball shapes                               |  |
| 4.6 | One black diamond shape                               |  |
| 4.7 | Cylindrical shape                                     |  |
| 4.8 | Radar reflectors (applicable for vessels with GT<150) |  |

#### **5. NAVIGATION LIGHTS**

| 5.1 | LSS Plan (Indian flagged vessels) Approved by on   |  |
|-----|--|--|
| 5.2 | Sidelight inboard screens painted matt black   |  |
| 5.3 | Navigation lights in good condition and operating satisfactorily                         |  |
| 5.4 | Navigation light failure warning device: Visual/Audible on bridges operating efficiently |  |

#### 6. BRIDGE DISTRESS SIGNALS

|     | Indicate expiry date or manufacture date (M) of the following                    |         |                                  |  |  |  |  |
|-----|--|---------|----------------------------------|--|--|--|--|
|     |  | E/M     | DATE                             |  |  |  |  |
| 6.1 | 12 red parachute signals   |         |                                  |  |  |  |  |
| 6.2 | Line throwing rockets, and   |         |                                  |  |  |  |  |
| 6.3 | Igniter cartridges (if applicable)   |         |                                  |  |  |  |  |
| 6.4 | Line throwing rockets and ship's distress flares in good con                     | dition  |                                  |  |  |  |  |
| 6.5 | An illustrated table describing the life-saving signals to distress is available | be used | by ships, aircraft or persons in |  |  |  |  |

## 7. SURVIVAL CRAFT, RESCUE BOAT AND ASSOCIATED LAUNCHING, AND RECOVERY APPLIANCES

|          | 1  |          |        |        |   |  |  |  |  |
|----------|--|----------|--------|--------|---|--|--|--|--|
| 7.1      | Lifeboats turned out and lowered to Embarkation Deck, at time of Survey, (circle number as appropriate). Recovery of lifeboat verified satisfactorily. OR  | 1        | 2      | 3      | 4 |  |  |  |  |
| 7.2      | Life boats turned out, lowered and manoeuvred in water (Circle number as appropriate). Recovery of lifeboat verified satisfactorily.   | 1        | 2      | 3      | 4 |  |  |  |  |
| 7.3      | Each motor lifeboat engine readily started and operated satisfactorily, ahead and astern   |          |        |        |   |  |  |  |  |
| 7.4      | Lifeboats capable of being launched, where necessary utilizing painter, with ship at speeds up to 5 knots in calm water (required for new installations/ modification)   |          | g hea  | dway   |   |  |  |  |  |
| 7.5      | Each lifeboat self contained air support system generally examined and found satis   | factory  | y      |        |   |  |  |  |  |
| 7.6      | Each lifeboat water spray system generally examined and found efficient  |          |        |        |   |  |  |  |  |
| 7.7      | Each lifeboat water spray system/self-contained air support system satisfactorily te   | sted     |        |        |   |  |  |  |  |
| 7.8      | Each motor lifeboat provided with sufficient fuel for 24 hours continuous operation  | n        |        |        |   |  |  |  |  |
| 7.9      | Air cases removed, found or placed in good condition, replaced and secured, OR   |          |        |        |   |  |  |  |  |
| 7.10     | Built-in buoyancy found in good condition as far as seen   |          |        |        |   |  |  |  |  |
| 7.11     | Each lifeboat found in good condition and fully equipped   |          |        |        |   |  |  |  |  |
| 7.12     | All sheaves, blocks, falls, lifting hooks, hook foundations and securing arrangements, release arrangements and all moving parts found free and well lubricated or made good at time of survey                 |          |        |        |   |  |  |  |  |
| 7.13     | Freefall lifeboats: Launch track, release and recovery arrangements in satisfactory  |          |        |        |   |  |  |  |  |
| 7.14.1   | All survival craft launching and recovery appliances found satisfactory when ex practicable <sup>‡‡</sup>  |          |        | far as |   |  |  |  |  |
|          | <sup>14</sup> Survival craft/ rescue boat davit's SWL is not less than boat's weight including equipment and personnel. Check specially for life rafts replaced by life rafts of 82.5 kg/ person specification |          |        |        |   |  |  |  |  |
| 7.14.2   | Confirmation that hand gear handles or wheels are not rotated by moving parts of<br>the survival craft is being lowered or when it is being hoisted by power.  | the w    | inch   | when   |   |  |  |  |  |
| 7.14.3   | Confirmation that davit arms are fitted with safety devices which will automati power before the davit arms reach the stops.   | cally c  | cut of | ff the |   |  |  |  |  |
| 7.15     | Each lifeboat fitted with retro-reflective material  |          |        |        |   |  |  |  |  |
| 7.16     | For Self Contained Air System in totally enclosed life boats:  |          |        |        |   |  |  |  |  |
|          | The provision of refilling air bottles if the air pressure of bottle drops by 20%  |          |        |        |   |  |  |  |  |
| 7.17     | In case of Fire Protected Life Boats, the arrangements for flushing the water spra<br>system with fresh water and allowing complete drainage   | ay fire- | prote  | ection |   |  |  |  |  |
| 7.18     | RESCUE BOAT (DEDICATED RESCUE BOAT * OR PORT*/ STBD* LIFE B  | OAT*)    | )      |        |   |  |  |  |  |
| 7.18.1   | Rescue boat examined, found in good condition and fully equipped   |          |        |        |   |  |  |  |  |
| 7.18.2.1 | Launching and recovery appliance found satisfactory when examined as far as practice   | cticable | e      |        |   |  |  |  |  |
| 7.18.2.2 | Confirmation that hand gear handles or wheels are not rotated by moving parts of the rescue boat is being lowered or when it is being hoisted by power.  |          |        | when   |   |  |  |  |  |
| 7.18.2.3 | Confirmation that davit arms are fitted with safety devices which will automati power before the davit arms reach the stops.   | cally c  | cut of | ff the |   |  |  |  |  |

| 7.18.3 | Release hook, falls and associated moving parts (blocks, sheaves, etc.) were found free and well lubricated or made good at time of survey.   |  |
|--------|---|--|
| 7.18.4 | The rescue boat was fitted with retro reflective material   |  |
| 7.18.5 | Launching and recovery appliance test including overload test carried out to establish lowering and recovery speed and to establish lowering and recovery possible at lightest sea-going draught. (required for new installations/modification) |  |
| 7.18.6 | Rescue boat engine readily started and operated satisfactorily, ahead and astern  |  |
| 7.18.7 | Rescue boat lowered and recovery demonstrated while underway at 5knots. (required for new installations/modification)   |  |

#### 8. LIFEBOAT DISTRESS SIGNALS

|     | Indicate expiry date (E) or manufacture date (M) of the following |     |        |     |        |     |        |     |      |    |
|-----|---|-----|--------|-----|--------|-----|--------|-----|------|----|
|     |   | E/M | BOAT 1 | E/M | BOAT 2 | E/M | BOAT 3 | E/M | BOAT | 34 |
| 8.1 | Two orange smoke signals  |     |        |     |        |     |        |     |      |    |
| 8.2 | Four parachute signals  |     |        |     |        |     |        |     |      |    |
| 8.3 | Six red hand-held flares  |     |        |     |        |     |        |     |      |    |
| 8.4 | Lifeboat distress flares found in satisfactory condition          |     |        |     |        |     |        |     |      |    |

#### 9. SURVIVAL CRAFT LAUNCHING AND EMBARKATION ARRANGMENTS

| 9.1  | Emergency power, lighting of muster and embarkation stations, alleyways, stairways and exits giving access to the muster and embarkation stations; onboard communication and alarm operating satisfactorily  |  |
|------|--|--|
| 9.2  | Means of preventing discharge of water into boats found satisfactory   |  |
| 9.3  | Illumination of stowage and launching positions found in working order   |  |
| 9.4  | Lifelines on davit spans and bowsing tackles were found or placed in good condition (if applicable)  |  |
| 9.5  | Embarkation ladders found or placed in good condition  |  |
| 9.6  | Abandon ship audible signals operating satisfactorily  |  |
| 9.7  | Operative test of all emergency power supplies, emergency lighting and general alarm systems satisfactorily carried out  |  |
| 9.8  | All embarkation arrangements and launching gear found to be satisfactory when examined as far as practicable   |  |
| 9.9  | IMO recommended symbols as required posted throughout the vessel   |  |
|      | (Note: Escape route signs and equipment location markings are required to be as per IMO Resolution A.1116(30) for ships constructed on or after 1 January 2019 or existing ships which undergo repairs, alterations, modifications and outfitting with the scope of SOLAS Chapter II-2 and/or III, as applicable, on or after 1 January 2019.) |  |
| 9.10 | Lifeboat launching instructions posted   |  |

#### 10. LIFE RAFTS

| 10.1.1 | Life raft stowage will facilitate proper release including float free facility where required   |  |
|--------|---|--|
| 10.1.2 | Confirmation that life raft transportation straps which are used for the purpose of securing life rafts while transportation (from service center to onboard vessel) are removed. |  |
| 10.2   | Launching instructions posted   |  |
| 10.3   | The embarkation arrangements of inflatable liferafts and, where provided, the launching arrangements of davit launched liferafts found satisfactory.                              |  |

#### **11. RIGID LIFERAFTS**

| 11.1 | Each liferaft examined, found in a good condition, stowed to facilitate rapid launching and fitted with retro reflective material |            |                    |           |                     |         |         |      |
|------|---|------------|--------------------|-----------|---------------------|---------|---------|------|
| 11.2 | Raft and equipment complet  | e and in g | good condition and | d raft wi | th retro reflective | materia | 1       |      |
|      | Indicate expiry date (E) or manufacture date (M)  |            |                    |           |                     |         |         |      |
|      |   | E/M        | R/L/RAFT. 1        | E/M       | R/L/RAFT 2          | E/M     | R/L/RAI | FT.3 |
| 11.3 | Two orange smoke signals  |            |                    |           |                     |         |         |      |
| 11.4 | Four parachute signals  |            |                    |           |                     |         |         |      |
| 11.5 | Six red hand-held flares  |            |                    |           |                     |         |         |      |

#### 12. STOWAGE OF SURVIVAL CRAFT AND RESCUE BOATS

| 12.1 | Provision, disposition including stowage of Survival craft and rescue boat satisfactory and do not |  |
|------|--|--|
|      | interfere with operation of other survival crafts and rescue boats.                                |  |
| 12.2 | Survival crafts are fully equipped and in a state of continuous readiness                          |  |

#### **13. LIFEJACKETS**

| 13.1 | Complete number of approved lifejackets, as shown on Record of Equipment for SEQ Certificate each with whistle and light   |  |
|------|--|--|
| 13.2 | Each lifejacket found in good condition,   |  |
| 13.3 | Lifejackets stowed in accessible and clearly marked places   |  |
| 13.4 | Each lifejacket fitted with retro reflective material  |  |
| 13.5 | Life Jacket Lights as per LSA Code Chapter II/2.2.3 (Manual switch provided if of flashing type)   |  |
| 13.6 | Validity of life jacket lights.  |  |
| 13.7 | For ships constructed before 1 July 2010, adequate number of lifejackets provided to fit persons weighing up to 140 kgs and chest girth up to 1750 mm/ suitable accessories provided to lifejackets which do not fit to persons weighing up to 140 kgs and chest girth up to 1750 mm.* |  |
| 13.8 | For passenger ships on voyages less than 24h, number of infant lifejackets provided equals to at least 2.5% of the number of passengers on board and as per LSA plan   |  |
| 13.9 | For passenger ships on voyages 24h or greater, number of infant lifejackets provided for each infant on board  |  |

#### 14. LIFEBUOYS, IMMERSION SUITS/ANTI-EXPOSURE SUITS AND THERMAL PROTECTIVE AIDS

| 14.1   | Lifebuoys:  |  |
|--------|---|--|
| 14.1.1 | Complete in number as shown on Record of Equipment for SEQ Certificate and in good condition  |  |
| 14.1.2 | Of highly visible colour, fitted with brackets and readily accessible   |  |
| 14.1.3 | Marked in block letters with name and port of registry of ship  |  |
| 14.1.4 | Fitted with lines, lights or light and smoke as on Record of Equipment for SEQ Certificates   |  |
| 14.1.5 | Capable of being rapidly cast loose   |  |
| 14.1.6 | Fitted with retro reflective material   |  |
| 14.1.7 | MOB marker expiry date: 1 2   |  |
| 14.2   | Immersion suits/Anti-exposure suits and thermal protective aids complete as on Record of Equipment for SEQ Certificate and in good condition, including that, stowed in survival craft as equipment.  |  |
| 14.2.1 | Immersion suits designed to be worn in conjunction with a lifejacket are suitably marked to indicate that it must be worn in conjunction with a compatible lifejacket.<br>(Note: It is to be ensured that where immersion suits onboard a ship are NOT provided with separate gloves and are to be worn in conjunction with life jackets, the life jackets provided onboard are with quick and positive means of closure that do not require tying of knots). |  |
| 14.2.2 | Monthly Inspection and testing of Immersion suits carried out   |  |
| 14.2.3 | All Immersion suits/ anti exposure suits seams tested every 3 years (more frequently after 10 years).<br>Last testing done  |  |

#### **15. PILOT TRANSFER ARRANGEMENTS**

| 15.1 | Side ropes, man ropes and steps of pilot ladder in good condition; Certificate available on board for pilot ladders supplied on or after 1 July 2012 |  |
|------|--|--|
| 15.2 | The condition and illumination of the ladder(s) and boarding position in good order  |  |
| 15.3 | A heaving line and one of the lifebuoys with self-igniting light readily available   |  |
| 15.4 | Pilot ladder(s) and accommodation ladder(s) found to be in good condition  |  |
| 15.5 | Pilot ladder(s) and accommodation ladder(s) raised and examined in position  |  |
| 15.6 | Records maintained on board for pilot ladder in use and repairs effected to it.  |  |

#### 16. MEANS OF EMBARKATION ON AND DISEMBARKATION FROM SHIPS

| 16.1 | Accommodation ladder and/or gangway examined and found to be in satisfactory condition |  |
|------|--|--|
| 16.2 | 5 yearly operation tests carried out. Last carried out on                              |  |
| 16.3 | Maximum operational load   |  |

| 16.4 | Dates when wires for means of embarkation / disembarkation renewed (See Note 3 on Page 1) |              |  |  |
|------|---|--------------|--|--|
|      | Acc. Ladder / gangway   | Date Renewed |  |  |
|      | Port  |              |  |  |
|      | Starboard   |              |  |  |

#### **17. COMMUNICATION**

|        | Was the following communication equipment verified and satisfactory                    |  |
|--------|--|--|
| 17.1   | Two way VHF radio telephone Apparatus  |  |
| 17.2   | Search and rescue Locating Device: SART and/or AIS-SART:                               |  |
| 17.2.1 | SART   |  |
| 17.2.2 | AIS-SART   |  |
| 17.3   | Two way communication System between emergency control station and embarkation station |  |
| 17.4   | General Alarm, Crew Alarm and Public Address System as appropriate                     |  |

#### 18. FIRE PUMPS, FIREMAIN, HYDRANTS, HOSES ETC.

| 18.1 | Fire pumps (including emergency fire pump) capable of producing the required two jets of water (whilst also permitting the simultaneous operation of foam system on tankers). Prime movers including starting arrangements, charging arrangements and the condition & maintenance record of battery, where provided, verified satisfactorily. |  |
|------|---|--|
| 18.2 | All pumps, firemain, hydrants, hoses, nozzles, applicators, spanners, relief valves and international shore connection are in good condition  |  |
| 18.3 | Each hose complete with couplings, nozzle and tools kept ready for use.   |  |
|      | Note: Fire hoses to be of at least 10 m in length, but not more than:   |  |
|      | a. 15 m in machinery spaces;  |  |
|      | b. 20 m in other spaces and open decks; and   |  |
|      | c. 25 m for open decks on ships with a maximum breadth in excess of 30 m.   |  |

#### **19. EXTINGUISHERS AND FOAM APPLICATORS**

| 19.1  | Fire Extinguishers are checked for proper location, charging pressure and condition.  |  |
|-------|---|--|
|       | (Note: The surveyor should use his discretion based on the state of maintenance, upkeep/physical condition of the extinguishers including storage arrangement, location etc. to confirm that the extinguishers are in satisfactory condition, fully charged and ready for use. Flag Instructions, D-13 is to be referred for individual flag requirements.) |  |
| 19.2  | Foam applicator unit was checked for stowed position and condition.   |  |
| 19.3  | Date when charged: Extinguishers Applicator Units (if not sealed type)  |  |
| 19.4  | Date extinguishers pressure tested:   |  |
| 19.5  | In each boiler firing space an approved portable extinguisher OR sand in box with scoop provided  |  |
| 19.6  | Spare charge for each extinguisher other than for gas cylinder was provided.  |  |
| 19.7  | Spare gas cylinders provided (spare cylinders 100%)   |  |
| 19.8  | Fire extinguishers in machinery spaces of category A containing Internal combustion machineries   |  |
| 19.9  | Fire extinguishers in machinery spaces of category A in passenger ships.  |  |
| 19.10 | Fire extinguishers in machinery spaces containing oil fired boilers or oil fuel units.  |  |
|       | Note: With effect from 1 January 2020 or on voluntary early implementation by a Flag State as communicated to IMO through GISIS, in the case of domestic boilers of less than 175 kW, or boilers protected by fixed water-based local application fire-extinguishing systems, an approved foam-type extinguisher of 135 L capacity is not required.         |  |
| 19.11 | Fire extinguishers in spaces containing steam turbines.   |  |
| 19.12 | Fire extinguishing appliances in other machinery spaces.  |  |
| 19.13 | Vessel does not carry chemical foam fire extinguishers and / or soda acid extinguishers. (Indian flagged vessels are not permitted to carry these extinguishers).   |  |

#### **20. FIRE FIGHTER'S OUTFITS**

| 20.1   | Nos of Fire Fighter Outfit provided on board. Each unit complete and in good condition  |  |
|--------|---|--|
| 20.2.1 | Each outfit fitted with an audible alarm and a visual or other device which will alert the user before the volume of the air in the cylinder has been reduced to no less than 200 $l$ (For ships constructed before 1 July 2014, the compliance date is first survey after 1 July 2019))<br>Note: A pressure indicator, with which the user can read that the volume of remaining air in the cylinder has been reduced to no less than 200 l, regardless of the need for supplemental lighting, may be regarded as a visual device. |  |

| 20.2.2   | Each outfit complete with air cylinders, including spare cylinders fully charged  |   |
|----------|---|---|
| 20.2.2   | (Two spare charges to be carried for each required breathing apparatus. However passenger ships   |   |
|          | carrying not more than 36 passengers and cargo ships need only carry one spare charge for each required apparatus if provided with means for charging air cylinders.  |   |
|          | Passenger ships carrying more than 36 passengers are required to carry at least two spare charges for each breathing apparatus)   |   |
| 20.2.3   | Where the vessel is a passenger ship carrying more than 36 passengers constructed on or after 1 July 2010, a suitably located means for fully recharging breathing air cylinders, free from contamination is provided as follows and found to be in satisfactory condition.   |   |
| 20.2.3.1 | Breathing air compressors supplied from the main and emergency switchboard, or independently driven, with a minimum capacity of 60 l/min per required breathing apparatus, not to exceed 420 l/min, or  |   |
| 20.2.3.2 | Self-contained high-pressure storage systems of suitable pressure to recharge the breathing apparatus used on board, with a capacity of at least 1,200 l per required breathing apparatus, not to exceed 50,000 l of free air.  |   |
| 20.2.4.1 | Vessel fitted with an onboard means of recharging breathing apparatus cylinders used during drills which found to be in satisfactory condition, or  |   |
| 20.2.4.2 | Vessel provided with number of spare cylinders fully charged to replace those used during drills which found to be satisfactory condition. (Unless flag has provided some other interpretation, not less than two spare cylinders are to be carried on board to replace those used during drill. For ships that are required to carry more than two fire-fighter's outfits, a suitable number would be one per mandatory outfit.) |   |
| 20.2.4.3 | Where an onboard means of recharging breathing apparatus cylinder is fitted as per 20.2.4.1 above, verification that annual air quality test for same is carried out. (Date last done).   |   |
| 20.2.5   | Hydraulic pressure testing of SCBA cylinders last carried out on (every 5 years)  | • |
| 20.3     | Smoke mask, air pump and hose tested and found satisfactory   |   |
| 20.4     | Two-way portable radiotelephone apparatus for each fire party for fire-fighter's communication. (For ships constructed before 1 July 2014, the compliance date is first survey after 1 July 2018)   |   |

#### 21. EMERGENCY ESCAPE BREATHING DEVICES

| 21.1 | Are approved emergency escape breathing devices (EEBD) provided on board     |  |  |  |
|------|--|--|--|--|
| 21.2 | No. of emergency escape breathing devices as per Approved Fire Control Plan. |  |  |  |
| 21.3 | Is the condition of emergency escape breathing devices satisfactory          |  |  |  |
| 21.4 | Hydraulic pressure test of EEBD cylinders last carried out on                |  |  |  |

#### 22. FIXED FIRE EXTINGUISHING AND PROTECTION SYSTEMS

|      | LOCATION INDICA  | ATE TYPE OF SYSTEM FITTED               |
|------|--|---|
|      | Engine room  |   |
|      | Boiler room  |   |
|      | Pump room  |   |
|      | Dry cargo spaces   |   |
|      | Special category and vehicle spaces  |   |
|      | Accommodation and service spaces   |   |
|      | Control stations   |   |
|      | Cabin balconies in passenger ships   |   |
|      | Cargo tanks protection (on deck)   |   |
|      | Galley exhaust ducts   |   |
|      | Paint and/or flammable liquid locker   |   |
|      | Other spaces as on record  |   |
| 22.1 | Verification of installation and installation te installation/modifications)                                 | est carried out satisfactorily (for new |
| 22.2 | Each system examined as far as practicable, piping an of obstructions; gas release alarm system operating sa |   |

#### 23. CO<sub>2</sub> SYSTEM

| 23.1   | Date container(s) content verified  |   |
|--------|---|---|
| 23.2   | Date container(s) pressure tested   |   |
| 23.3   | Date system last serviced   |   |
|        | Service    Provider:   , Approved by:      Cert No.:   , Valid upto:  | , |
| 23.3.1 | 5y'ly   |   |
| 23.3.2 | All flexible hoses have been replaced at intervals recommended by the manufacturer but not exceeding 10 years.  |   |
|        | Date of last replacement  |   |
| 23.4   | System examined and tested as far as practicable and found satisfactory   |   |
| 23.5   | System for machinery space protection are provided with two separate controls, one for opening of the gas piping and one for discharging the gas from the storage container, each of them located in a release box clearly identified for the particular space. |   |
| 23.6   | Verification with regard to correct positioning (for in service condition) of safety pins where used<br>on cylinder head discharge valves are in accordance with manufacture's instruction manual.  |   |
| 23.7   | Verification that CO <sub>2</sub> piping leading to cargo hold are in good condition.   |   |

#### 24. HALON SYSTEMS

| 24.1 | Date container(s) content verified                                       |  |
|------|--|--|
| 24.2 | Date container(s) pressure tested  |  |
| 24.3 | Date system last serviced  |  |
|      | Service Provider:, Approved by:,   |  |
|      | Cert No.:, Valid upto:   |  |
| 24.4 | Systems examined and tested as far as practicable and found satisfactory |  |

#### 24A. STEAM/ GASEOUS PRODUCT OF FUEL COMBUSTION/ EQUIVALENT FIXED GAS\* SYSTEMS

| 24.1 | Where equivalent fixed gas system provided mention type                  |  |
|------|--|--|
| 24.2 | Date system last serviced (as per manufacturer recommendation)           |  |
| 24.3 | Date system last tested (as per manufacturer recommendation)             |  |
| 24.4 | Systems examined and tested as far as practicable and found satisfactory |  |

#### **25. FOAM SYSTEMS**

| 25.1 | Date foam: supplied to ship sample tested                                  |  |
|------|--|--|
|      | (Sample test required after 3 years of supply and subsequently every year) |  |
| 25.2 | System(s) examined and tested as far as possible and found satisfactory    |  |

#### 26. FIXED WATER SPRAYING SYSTEMS

| 26.1 | System(s) examined and tested as far as practicable and found satisfactory |  |
|------|--|--|
|------|--|--|

#### 26A. FIXED LOCAL APPLICATION FIRE-EXTINGUISHING SYSTEMS

| 26.2 | Fixed Local Application fire-extinguishing system in satisfactory condition |  |
|------|---|--|
|------|---|--|

#### 27. SPRINKLER SYSTEM(S)

| 27.1 | System(s) examined and tested as far as practicable and found satisfactory<br>(Note: Refer MSC.1/Circ.1432. Where extended testing carried out, details of such testing, sprinklers sampled, the test<br>result including action taken are to be detailed in narrative report) |  |
|------|--|--|
| 27.2 | Visual and Audible alarm was automatically activated whenever system(s) operate(s)   |  |
| 27.3 | Water quality in the header tank and pump unit is assessed against the manufacturer's water quality guidelines every quarter as per MSC.1/Circ.1516  |  |

#### 28. DRY POWDER SYSTEM(S)

|--|

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#### 29. FIXED FIRE DETECTION AND FIRE ALARM SYSTEMS

|       |  | 1 |
|-------|--|---|
| 29.1  | All systems found operable and in a satisfactory condition upon examination.   |   |
| 29.2  | Detectors so positioned as to detect rapidly the onset of fire in any part of those spaces and under<br>any normal conditions of operation of the machinery and variations of ventilation as required by the<br>possible range of ambient temperatures.( for new installations/modification) |   |
| 29.3  | For passenger ships constructed after 01/07/2010 system is capable of remotely and individually identifying each detector and manually operated call point.  |   |
| 29.4  | For passenger ships, detectors fitted in cabins, when activated, are capable of emitting, or cause to be emitted, an audible alarm within the space where they are located. ( for new installations/modification)  |   |
| 29.5  | Manually operated call points are located at each exists and readily accessible in the corridors of each deck such that no part of the corridor is more than 20m from a manually operated call point (for new installations/modification)  |   |
| 29.6  | For passenger ships, installation and arrangement including testing of fire alarm signaling system (for new installations/modification)  |   |
| 29.7  | Installation tests have been completed satisfactorily (for new installations/modification)   |   |
| 29.8  | Confirmation that periodic function testing of fixed fire detection and fire alarm systems has been carried out.   |   |
| 29.9  | Confirmation of an efficient patrol system in passenger ships carrying more than 36passengers, their familiarization including provision of two-way portable radiotelephone apparatus for each member.   |   |
| 29.10 | Confirmation of an efficient patrol system in special category spaces.   |   |
| 29.11 | An audible alarm was activated automatically if visual and audible signal at fire control panel(s) not responded to within two minutes   |   |

#### 30. SAMPLE EXTRACTION SMOKE DETECTION SYSTEMS

| 30.1 | All systems found operable and in a satisfactory condition upon examination.  |  |
|------|---|--|
| 30.2 | Installation tests have been completed satisfactorily (for new installations) |  |

#### 31. INERT GAS (I G) SYSTEM

| 31.1  | CLASS NOTATION  |  |
|-------|---|--|
| 31.2  | Last survey date  |  |
| 31.3  | Operation and service manual provided   |  |
|       | THE FOLLOWING OPENED UP AND EXAMINED AS NECESSESARY:  |  |
| 31.4  | Inert gas generator   |  |
| 31.5  | Scrubbers and blowers   |  |
|       | THE FOLLOWING EXAMINED AS NECESSERY:  |  |
| 31.6  | Gas distribution line   |  |
| 31.7  | Shut-off valves   |  |
| 31.8  | Soot blower interlocking devices  |  |
|       | THE FOLLOWING EXAMINED:   |  |
| 31.9  | Deck seal   |  |
| 31.10 | Non-return valve  |  |
| 31.11 | Effluent piping   |  |
| 31.12 | Overboard discharge for scrubbers   |  |
|       | THE FOLLOWING SATISFACTORILY TESTED   |  |
| 31.13 | Automatic shut-down devices   |  |
| 31.14 | Alarms  |  |
| 31.15 | Complete installation under working conditions  |  |
| 31.16 | From external examination, all components and piping found free from signs of corrosion or gas/effluent leakage |  |
| 31.17 | Both inert gas blowers operational  |  |
| 31.18 | The scrubber room ventilation system operational  |  |
| 31.19 | The deck water seal filling and draining system operational and without evidence of water carry-<br>over        |  |

| 31.20 | The non-return valve operational  |      |
|-------|---|------|
| 31.21 | Operation of all remotely operated or automatically controlled valves, in particular the flue gas isolating valve(s), satisfactory  |      |
| 31.22 | Interlocking features of soot blowers checked found satisfactory  |      |
| 31.23 | Gas pressure regulating valve automatically closed when the inert gas blowers secured   |      |
|       | THE FOLLWING SAFETY DEVICES OF THE I G SYSTEM CHECKED AS FAR AS PRACTIC<br>(USING SIMULATED CONDITIONS WHERE NECESSERY) AND FOUND SATISFACTORY  | ABLE |
| 31.24 | High oxygen content of gas in inert gas main  |      |
| 31.25 | Low pressure in inert gas main  |      |
| 31.26 | Low pressure in the supply to the deck water seal   |      |
| 31.27 | High temperature of gas in inert gas main   |      |
| 31.28 | Low water pressure or low water-flow rate to scrubber   |      |
| 31.29 | Accuracy of portable and fixed oxygen measuring equipment by means of calibration gas   |      |
| 31.30 | High water level in scrubber  |      |
| 31.31 | Failure of inert gas blowers  |      |
| 31.32 | Failure of power supply to automatic control system for gas regulatory valve and instrumentation for continuous indication and permanent recording of pressure and oxygen content in I.G. main      |      |
| 31.33 | High pressure of gas in the inert gas main  |      |
|       | (oil Tanker keel laid on or after 1 January 2016)   |      |
| 31.34 | The deck water seal for automatic filling and draining, and the arrangement for protection the system against freezing.   |      |
| 31.35 | Checking the automatic operation of block and bleed valve upon loss of power, where double block and bleed valve is installed.  |      |
| 31.36 | The automatic operation of the venting valve and the alarm for faulty operation of the valves, where two shut off valves in series with a venting valve in between are used for non- return device. |      |
| 31.37 | Checking the means of isolation of cargo tanks where not inert from inert gas main.   |      |
| 31.38 | Checking the alarms of the two oxygen sensor positioned in the space containing inert gas system.   |      |
|       |   |      |

#### **32. OTHER ITEMS**

| 32.1     | Mechanical ventilation in cargo areas (for tankers and gas carriers)   |  |
|----------|--|--|
| 32.2.1   | Gas measurement system in gas carrier and pump room of oil tankers.  |  |
| 32.2.2.1 | Tankers equipped with minimum of two instruments, each capable of measuring both oxygen and flammable vapour concentration. Alternatively two portable instruments for measuring oxygen and two for measuring flammable vapour concentration. Instruments last calibrated on,  |  |
| 32.2.2.2 | Where the atmosphere in double hull spaces and double bottom spaces cannot be reliably measured using flexible gas sampling hoses, such spaces are fitted with permanent gas sampling lines.   |  |
| 32.2.3   | Ship is in possession of portable atmospheric testing instrument/s capable of measuring concentrations of oxygen, flammable gases or vapors, hydrogen sulphide and carbon monoxide prior to entry into enclosed spaces. Suitable means are also provided for the calibration of all such instruments (Instrument/s to be calibrated either on board or ashore in accordance with the manufacturer's instruction. Pre-operational accuracy tests will not suffice the calibration requirement).   |  |
| 32.3     | Fixed hydrocarbon gas detection in all ballast tanks and void spaces of double hull and double bottom spaces adjacent to the cargo tanks, including the forepeak tank and any other tanks and spaces under the bulkhead deck adjacent to cargo tanks (for oil tankers of DWT> 20,000 T constructed on or after 1 January 2012). [Pump room protected by SOLAS requirements of II-2/4.5.10 (i.e., temperature sensing devices and alarm, lighting and ventilation interlock, hydrocarbon gas monitoring, bilge level alarm etc.) need not comply]. Otherwise, |  |
| 32.4     | Constant operative inerting system for these spaces provided, except pump room having protection as per SOLAS regulation II-2/4.5.10 (for oil tankers of DWT> 20,000 T constructed on or after 1 January 2012)   |  |
| 32.5     | Temperature sensing devices for bulkhead glands and alarms, interlock between lighting and ventilation and bilge level monitoring devices and alarm in cargo pump room found operable (as applicable).   |  |
| 32.6     | All cut out valves and piping of the cargo tank and cargo pump room fixed fire fighting system found satisfactory when externally examined as far as practicable   |  |

| 32.7    | Fire fighting arrangements for the protection of deep-fat cooking arrangement  |  |
|---------|--|--|
| 32.8    | Examination and testing of manual and automatic fire doors including the means of closing the openings in "A" and "B" class divisions.   |  |
| 32.9    | Ships transporting solid bulk cargo which is liable to emit a toxic or flammable gas, or cause oxygen depletion in the cargo space, an appropriate instrument for measuring the concentration of gas or oxygen in the air are provided together with detailed instructions for its use. Further crews of the ship have been trained in the use of such instruments. Instrument last calibrated on  |  |
| 32.10   | In passenger ships, confirmation that the stairways and ladders, including the low-location lighting system, arranged to provide a means of escape to the lifeboat and liferaft embarkation deck from all passenger and crew spaces and from those spaces in which the crew is normally employed are being maintained. Escape route signs and fire equipment location markings of photo luminescent material or by lighting are in good order. |  |
| 32.11   | Confirmation that means of escape from the machinery spaces are satisfactory.  |  |
| 32.12   | Exhaust Ducts from galley ranges:  |  |
| 32.12.1 | Verification that grease traps are clean and grease free.  |  |
| 32.12.2 | Remote control arrangements for shutting off the exhaust fans and supply fans, for operating the fire dampers are satisfactory and operational condition.  |  |
| 32.13   | Verification that machinery/equipment are free from oil leakages and potential source of ignition such as accumulation of oil does not exist in the machinery spaces.  |  |
| 32.14   | Examination of emergency light fittings including marking identifying its purpose, adequate illumination for safe evacuation in emergency.   |  |

#### 33. REMOTE STOPS AND CONTROL ARRANGEMENTS

|      | ARRANGEMENTS IN MACHINERY SPACES:  |  |
|------|--|--|
| 33.1 | Remote controls for skylights, release of smoke, closure of funnel and ventilation openings, closure of power operated & other doors, stopping of ventilation, boiler forced/induced draft fans, stopping of oil fuel and other pumps that discharge flammable liquids tested and found satisfactory |  |
| 33.2 | All openings can be closed from outside  |  |
| 33.3 | Remote means of closing the valves of the tanks that contain oil fuel, lubricating oil and other flammable oils examined, tested and found satisfactory.   |  |
|      | ARRANGEMENTS IN CARGO SPACES:  |  |
| 33.4 | All openings can be closed from outside the protected space  |  |

#### 34. SPECIAL ARRANGEMENTS FOR CERTAIN SHIPS

| 34.1   | SHIPS WITH U.M.S NOTATION:   |  |
|--------|--|--|
| 34.1.1 | Fire detection system and required audible and visual alarms found operable  |  |
| 34.1.2 | Remote controls for sea inlets and discharges below the waterline or bilge injection system (if fitted) found operable   |  |
| 34.2   | Ro-Ro CARGO SPACES AND OTHER SPACES INTENDED FOR THE CARRIAGE OF MOTOR VEHICLES WITH FUEL IN THEIR TANKS FOR THEIR OWN PROPLULSION:  |  |
| 34.2.1 | The special requirements shown on the Record of Equipment for SEQ Certificates found Complied with and operating efficiently (where applicable)  |  |
| 34.2.2 | Confirmation that means of escape from the special category spaces and ro-ro spaces are satisfactory.  |  |
| 34.2.3 | In ro-ro passenger ships, confirmation that a helicopter pick-up area is provided (initial survey)   |  |
| 34.2.4 | Where an air quality control system has been provided based on Regulation SOLAS II- 2/20, for the protection of vehicle, special category and ro-ro spaces:  |  |
| a      | Examination of air quality control system including verification of satisfactory operation.<br>Confirmation that air quality test is carried out and test result verifying the adequacy of the<br>ventilation system is documented and kept with the ship's records. |  |
| b      | Confirmation that manufacturer's instruction manual is provided and that calibration, maintenance and testing of the system (including sensors) is carried out as per instruction manual.  |  |
| 34.3   | CARGO SHIPS OF 500GT AND ABOVE INTENDED FOR CARRYING MOTOR VEHICLES<br>WITH COMPRESSED HYDROGEN OR COMPRESSED NATURAL GAS IN THEIR TANKS AS<br>FUEL  |  |

| 34.3.1 | Confirmation that for ships constructed on or after 1 January, 2016, all electrical equipment and wiring used in spaces intended to carry such vehicles, including fans and other electrical equipment used in the ventilation ducts are of certified safe type and no equipment fitted in such spaces that may constitute a fire/explosion risk. |  |
|--------|---|--|
| 34.3.2 | Confirmation that at least two certified safe type portable gas detectors suitable for the detection of gas fuel emissions from the tanks of such vehicles are provided.  |  |
| 34.4   | HELICOPTER LANDING FACILITIES   |  |
| 34.4.1 | FFA and emergency equipment available and in satisfactory condition   |  |
| 34.4.2 | Operational Manual & Checklist provided   |  |
| 34.5   | SAFETY CENTER ON PASSENGER SHIPS (constructed on or after 1st July 2010)  |  |
| 34.5.1 | Location, layout and arrangement including provision of a separate ventilation system (for initial survey)  |  |
| 34.5.2 | Communication between the safety centre, the central control station, the navigation bridge, the engine control room, the storage room(s) for fire extinguishing system(s) and fire equipment lockers   |  |
| 34.5.3 | Control and monitoring of safety systems including functionality (operation, control, monitoring or any combination thereof, as required) of the safety systems   |  |

#### 35. SHIPS ENGAGED IN THE CARRIAGE OF DANGEROUS GOODS

| 35.1 | The special arrangements and equipment as per the Record attached to the Document of Compliance (if applicable), in good condition and operating satisfactorily. |  |
|------|--|--|
| 35.2 | Confirmation that there is a special list. Manifest or stowage plan for the carriage of dangerous goods.   |  |

# 36. CARGO SHIPS OF 500GT AND ABOVE AND PASSENGER SHIPS, WHICH ARE CONSTRUCTED ON OR AFTER 1<sup>ST</sup> JANUARY, 2016 FOR THE CARRIAGE OF CONTAINERS ON OR ABOVE WEATHER DECK

| 36.1 | Confirmation that ship is fitted with at least one water mist lance  |  |
|------|--|--|
| 36.2 | Ship that are designed to carry five or more tiers of containers on or above the weather deck:   |  |
|      | Confirmation that mobile water monitors are provided in addition to the water mist lance mentioned at 36.1 and all other fire protection arrangement as per existing regulations (Ships with breadth up to 30m are provided with at least two mobile water monitors and those ships with breadth exceeding 30m or more are provided with at least four mobile water monitors). |  |
| 36.3 | Testing that mobile water monitor are capable to be securely fixed to the ship structure for safe and effective operation, testing that mobile water monitor jets reaches the top tier of containers with all required monitors and water jets from fire hoses operated simultaneously.(Initial & Renewal survey)  |  |

#### 37. ADDITIONAL REQUIREMENTS FOR SHIPS OPERATING IN POLAR WATERS

| 37.1 | For ships intended to operate in low air temperature, checking the certificates or equivalent documents of the systems and equipment required by this Code for the consistence of the polar service temperature specified for the ship (Polar Code part I-A/Ch. 1.4.2) (for Initial Survey) |  |
|------|---|--|
| 37.2 | For ships operating in low air temperature, checking the certificates or equivalent documents of the survival systems and equipment for the consistence of the maximum expected rescue time at polar service temperature (Polar Code part I-A/Ch. 1.4.3) (for Initial Survey)               |  |
| 37.3 | Examining that all components of fire safety systems and appliances are designed to ensure availability and effectiveness under the polar service temperature (Polar Code part I-A/Ch. 7.2.2.1) (for Initial Survey)  |  |
| 37.4 | For ships constructed on or after 1 January 2017, confirming the exposed escape routes arranged as a passage by persons wearing suitable polar clothing (Polar Code part I-A/Ch. 8.3.1.2) (for Initial Survey)  |  |
| 37.5 | For ships intended to operate in low air temperatures, confirming the embarkation arrangements, with full regard for persons wearing additional polar clothing (Polar Code part I-A/Ch. 8.3.1.3) (for Initial Survey)   |  |
| 37.6 | Confirming that the instructions to passengers on the use of the personal survival equipment and the action to take in an emergency are provided on board (Polar Code part I-A/Ch. 8.3.3.3.6) (for Initial Survey)  |  |
| 37.7 | For passenger ship examining that a proper sized immersion suit of the insulated type or a thermal protective aid is provided for each person on board according to the operational assessment (Polar code Part I-A/Ch. 8.3.3.1.1 and 8.3.3.1.2 (for Initial & Renewal Survey)              |  |

| 37.8  | Examining the means of receiving and displaying the information on ice conditions in the area of operation (Polar Code part I-A/Ch. 9.3.1) (for Initial Survey)  |  |
|-------|--|--|
| 37.9  | For ice strengthened ships, examining that sensors for navigational equipment, required either by SOLAS or the Code, projecting below the hull are protected against ice (Polar Code part I-A/Ch. 9.3.2.1.4.1) (for Initial & Renewal Survey)  |  |
| 37.10 | Checking that the Polar Water Operational Manual (PWOM) with the hazards identified in the operational assessment being addressed properly is placed on board (Polar Code part I-A/Ch. 2.3, 4.3.1.3 and 4.3.1.4) (for Initial Survey)  |  |
| 37.11 | Confirming as applicable that the crew training records or other equivalent documents for the use of the personal survival equipment and group survival equipment are placed on board (Polar Code part I-A/Ch. 8.3.3.3.7) (for Initial Survey)   |  |
| 37.12 | Confirming that, where applicable, the approved documentation for the alternative design and arrangement is on board, with the relevant contents being entered in PWOM (SOLAS 74/00/14 regulation XIV/4) (for Initial Survey)  |  |
| 37.13 | Confirming the provision of the operational assessment and reviewing any changes thereof (Polar Code part I-A/Ch. 1.5)   |  |
| 37.14 | Confirming that the PWOM is on board, and checking it if any changes occurred since last survey (Polar Code part I-A/Ch. 2.3, 4.3.1.3 and 4.3.1.4)   |  |
| 37.15 | Confirming as applicable that the crew training records or other equivalent documents for the use of the personal survival equipment and group survival equipment are placed on board (Polar Code part I-A/Ch. 8.3.3.3.7)  |  |
| 37.16 | Confirming that the Voyage Plan has been provided on board for the voyages in polar waters since last survey, otherwise if no trading in polar waters, random checking to the historical plans may be considered (Polar Code part I-A/Ch. 11.3)  |  |
| 37.17 | Where applicable, checking the qualifications of the masters, chief mates, officers and/or other persons in charge of a navigational watch on board ships operating in polar waters in accordance with chapter V of the STCW Convention and the STCW Code (Polar Code part I-A/Ch. 12.3.1 and 12.3.2)  |  |
| 37.18 | Checking the qualification certificates (if required by the Administration) and/or familiarization records of all the crew members for their assigned duties referenced in the PWOM (Polar Code part I-A/Ch. 12.3.4)   |  |
| 37.19 | Confirming that, where applicable, the approved documentation for the alternative design and arrangements is on board, with the relevant contents being entered in PWOM (SOLAS 74/00/14 regulation XIV/4)  |  |
| 37.20 | Examining that all components of fire safety systems and appliances if installed in exposed positions are protected from ice accretion and snow accumulation according to the operational assessment (Polar Code part I-A/Ch. 7.2.1.1)   |  |
| 37.21 | Examining the fire safety systems and appliances for operation by persons wearing bulky and cumbersome cold weather gear including gloves, where appropriate (Polar Code part I-A/Ch. 7.2.1.3)   |  |
| 37.22 | Examining the means to remove or prevent ice and snow accretion from accesses of fire safety systems and appliances, escape routes, muster stations, embarkation areas, survival craft, its launching appliances and access to survival craft according to the PWOM (Polar Code part I-A/Ch. 7.2.1.4 and 8.3.1.1)  |  |
| 37.23 | Confirming that the extinguishing media is suitable for the intended operation (Polar Code part I-A/Ch. 7.2.1.5)   |  |
| 37.24 | Examining that the isolating and pressure/vacuum valves in exposed locations are protected from ice accretion and remain accessible at all time (Polar Code part I-A/Ch. 7.3.1.1)  |  |
| 37.25 | Examining that all two-way portable radio communication equipment capable to operate at the polar service temperature (Polar Code part I-A/Ch. 7.3.1.2)  |  |
| 37.26 | Examining that the fire pumps including emergency fire pumps, water mist and water spray pumps are located in compartments maintained above freezing (Polar Code part I-A/Ch. 7.3.2.1 and 7.3.2.2)   |  |
| 37.27 | Examining the arrangement of the fire main if the exposed sections could be isolated and means of draining of exposed sections are provided, and, where fixed water-based fire extinguishing systems are located in a space separate from the main fire pumps and use an own sea suction, confirming that this sea suction is capable of being cleared of ice accumulation (Polar Code part I-A/Ch. 7.3.2.2 and 7.3.2.4) |  |
| 37.28 | Examining that the fire fighter's outfits are stored in warm locations on the ship (Polar Code part I-A/Ch. 7.3.2.3)   |  |

| 37.29 | Examining that portable and semi-portable extinguishers are protected from freezing temperatures, and confirming that locations subject to freezing are provided with extinguishers capable of operation under the polar service temperature (Polar Code part I-A/Ch. 7.3.3.1)  |  |
|-------|---|--|
| 37.30 | Examining the exposed fire safety systems in accordance with the polar service temperature and ice strengthening standards (Polar Code part I-A/Ch. 7.3.3.2)  |  |
| 37.31 | Examining the means to ensure safe evacuation of persons, including safe deployment of survival equipment, when operating in ice-covered waters, or directly onto the ice, as applicable (Polar Code part I-A/Ch. 8.3.2.1)  |  |
| 37.32 | Examining and testing that lifesaving appliances and arrangements as required by Polar Code, if using devices requiring a source of power are able to operate independently of the ship's main source of power (Polar Code part I-A/Ch. 8.3.2.2)  |  |
| 37.33 | For cargo ships, examining that all the immersion suits equipped on board are of the insulated type (Polar Code part I-A/Ch. 8.3.3.1.2)   |  |
| 37.34 | For ships intended to operate in extended periods of darkness, examining and testing the search lights provided for each lifeboat, suitable for continuous use to facilitate identification of ice (Polar Code part I-A/Ch. 8.3.3.2)  |  |
| 37.35 | Confirming that the lifeboats are of the partially or totally enclosed type, as appropriate (Polar Code part I-A/Ch. 8.3.3.3.1)   |  |
| 37.36 | Confirming that, when personal or group survival equipment is required according to the operational assessment, personal and group survival equipment sufficient for 110% of the persons on board is stowed in easily accessible locations; containers for group survival equipment are designed to be easily movable over the ice and floatable, and that means of ensuring that personal and group survival equipment is accessible following abandonment is provided (Polar Code part I-A/Ch. 8.3.3.3.2, 8.3.3.3.1 to 8.3.3.3.4) |  |
| 37.37 | Confirming that the survival craft and launching appliances have sufficient capacity to accommodate the additional personal and group survival equipment if required and carried in addition to persons and that adequate emergency rations are provided for the maximum expected time of rescue (Polar Code part I-A/Ch. 8.3.3.3.5 and 8.3.3.3.4)  |  |
| 37.38 | Confirming that the instructions to passengers on the use of the personal survival equipment and the action to take in an emergency are provided on board (Polar Code part I-A/Ch. 8.3.3.3.6)   |  |
| 37.39 | Examining the means of receiving and displaying the information on ice conditions in the area of operation, with a demonstration by the crew on using the equipment and receiving the relevant information (Polar Code part I-A/Ch. 9.3.1)  |  |
| 37.40 | For ships constructed on or after 1 January 2017 and ice strengthened, confirming that either two independent echo-sounding devices or one echo-sounding device with two separate independent transducers are provided (Polar Code part I-A/Ch. 9.3.2.1.1)  |  |
| 37.41 | Confirming that clear view astern is achieved, and for ships built before 1 July 1998 and with a length of less than 55 m, confirming that, clear-view navigation bridge front windows are provided (SOLAS 74/00 regulation V/22.1.9.4, Polar Code part I-A/Ch. 9.3.2.1.2)  |  |
| 37.42 | Where ice accretion is likely to occur, examining the means to prevent the accumulation of ice on antennas required for navigation and communication (Polar Code part I-A/Ch. 9.3.2.1.3)  |  |
| 37.43 | Examining the arrangements of the bridge wings for protections of navigational equipment and operating personnel, in category A and B ships constructed on or after 1 January 2017 (Polar Code part I-A/Ch. 9.3.2.1.4.2)  |  |
| 37.44 | Examining the two independent non-magnetic means for heading information, and at least one GNSS compass or equivalent for ships intended to proceed to latitudes over 80 degrees, connected to the ship's main and emergency source of power (Polar Code part I-A/Ch. 9.3.2.2.1 and 9.3.2.2.)   |  |
| 37.45 | Examining and testing the two remotely rotatable, narrow-beam search lights controllable from the bridge to provide lighting over an arc of 360 degrees, or other means to visually detect ice, for ships not operating solely in 24h daylight, and examining and testing the manually initiated flashing red light visible from astern to indicate when the ship is stopped, for ships might be involved in operations with an icebreaker escort (Polar Code part I-A/Ch. 9.3.3.1 and 9.3.3.2)                                     |  |
| 37.46 | Examining, where applicable, the alternative design and arrangements for fire safety/protection or life-saving appliances and arrangements, in accordance with the test, inspection and maintenance requirements, if any, specified in the approved documentation and PWOM (SOLAS 74/00/14 regulation XIV/4);   |  |
| 37.47 | Confirmation that Polar Ship Certificate has been issued/ endorsed* based on satisfactory survey  |  |

### **38.** ADDITIONAL REQUIREMENTS FOR SHIPS USING GASES OR OTHER LOW-FLASH POINT FUELS (IGF CODE)

| 38.1  | Confirming that fire pump producing the pressure sufficient for operation of both the required number of hydrant and hoses and the water spray system simultaneously, where the water spray system is part of the fire main system,.  |  |
|-------|---|--|
| 38.2  | Examining the isolating values of the fire main, when the fuel storage tank(s) is located on the open deck  |  |
| 38.3  | Examining the water spray system arrangement for fuel storage tanks(s) on open deck including remote operation  |  |
| 38.4  | Confirmation that water spray system provided for coverage for boundaries of the superstructures, compressor rooms, pump-rooms, cargo control rooms, bunkering control stations and any other normally occupied deck houses that face the storage tank on open deck is in satisfactory condition.<br>Note – water spray is not applicable if the tank is located 10 metres or more from the boundaries. |  |
| 38.5  | Confirmation that capacity of water spray system fitted on board is as per approved drawing.<br>(for Initial survey)  |  |
| 38.6  | Confirmation that control of stop valves are fitted in the water spray application main supply line(s), are located in a readily accessible position not likely to be inaccessible in case of fire in the areas protected.  |  |
| 38.7  | In cases where the water spray system is not part of the fire main system, confirmation that a connection to the ship's fire main through a stop valve is provided.   |  |
| 38.8  | Confirmation that Remote operation of pumps supplying the water spray system and remote operation of any normally closed valves are located in a readily accessible position which is not likely to be inaccessible in case of fire in the areas protected. Remote operation of pumps and valves tested and found satisfactory.   |  |
| 38.9  | Confirmation that the nozzles fitted in the water spray system are of an approved full bore type and are providing effective distribution of water throughout the space being protected.  |  |
| 38.10 | Examined the dry chemical powder fire-extinguishing system fitted as per approved plan and arranged for easy manual release from a safe location outside the protected area. One number additional 5 kg portable DCP is provided near bunkering station.  |  |
| 38.11 | Examined the fixed fire detection and fire alarm system complying with the Fire Safety Systems code provided as per approved plan for the fuel storage hold spaces and the ventilation trunk for fuel containment system below deck, and for all other rooms of the fuel gas system where fire cannot be excluded   |  |
|       | (Note- smoke detectors alone is not considered sufficient for rapid detection of fire).   |  |

**39. SPECIAL FEATURES/OBSERVATIONS** 

Surveyor(s) to Indian Register of Shipping
Date:
Place: