



Luxembourg, 5 December 2016

## Circular CAM 11/2016

**O/Ref.:** VS/107812

**Subject:** Application for new Minimum Safe Manning Document (MSMD) & Guidance and Instructions for establishing the Minimum Safe Manning of ships - IMO Resolution A.1047 (27) of 20 December 2011 and Regulation 725/2004/EC of 31 March 2004

**To:** All Accredited Shipping Managers, Ship Owners, Ship Operators, Designated Persons Ashore (DPAs) of Luxembourg flagged ships, Recognised Organisations (ROs) and Recognised Security Organisations (RSOs)

The present circular complements circular CAM 05/2011 and replaces circular CAM 06/2011 regarding the need for companies to submit a new application for a Minimum Safe Manning Document (MSMD).

### Background

The implementation period of the 2010 Manila amendments to the STCW Convention and Code ends on the 31<sup>st</sup> December 2016. As of January 2017, all seafarers on active service must comply with these requirements and be in possession of a valid Certificate of Competency and/or Proficiency covering the functions performed on board.

It is reminded that since 1<sup>st</sup> July 2013, the training and competence of all new seafarers must already comply with the 2010 Manila amendments to the STCW Convention and Code.

### Impact of the 2010-Manila amendments on the MSMDs

#### *a) for ships already registered in Luxembourg*

In regards to the ratings, the STCW 2010 Manila amendments clarify in sections A-II/5 and A-III/5, the competences required for an Able Seafarer Deck / Able Seafarer Engine to carry out his duties at support level during the navigational / engineering watch; the berthing, anchoring and mooring operations; the handling of the cargo and stores; the control of the operations of the ship and care of the persons on board; the maintenance and repairs, to name but a few.

As a result, the category "Deck Rating of the watch" will now cease to exist in the MSMD. This category will be replaced by the function "Able Seafarer Deck" with a link to "Reg. II/5". Likewise, the category "Engine Rating of the watch" will now be replaced by the function "Able Seafarer Engine" with a link to "Reg. III/5". By revising the MSMD, this administration will align itself with the revised international rules of both the IMO and the ILO.

The STCW 2010 Manila amendments foresee that seafarers who have served in a relevant capacity either in the deck or in the engine department for a period of 12 months within the last 60 months preceding the entry into force of these amendments may be considered by their administration to have met the requirements of Reg. II/5, respectively III/5.

Considering that in some States, seafarers holding STCW II/4 or III/4 certificates seem unable to obtain certificates and/or the necessary endorsements required by Regulation I/10 (i.e. STCW II/5 or STCW III/5 certificates), CAM may authorize, on a temporary basis, these seafarers to continue serving on board a Luxembourg flagged vessel, providing that a documented request is submitted by the shipowner.

**Shipowners are now invited to apply for a new MSMD taking into account the rules modifications and propose to CAM the level of manning (numbers and ranks). By doing so, shipowners must replace II/4 and III/4 listed on MSMD by a number of II/5 and III/5 respectively that they consider suitable to safely operate the ship.**

*b) for ships joining the Luxembourg registry after 1<sup>st</sup> January 2017*

In accordance with Regulation I/14 of the STCW Convention as amended, the Company<sup>1</sup> is responsible for ensuring that ships under its management are manned in compliance with the MSMD, not only by properly qualified and certified seafarers, but also medically fit for work at sea.

Additionally, Chapter V - Safety of Navigation - Regulation 14.1 of the International Convention for the Safety of Life at Sea (SOLAS) 1974 as amended, requires every ship to be manned sufficiently and efficiently.

Identical requirements are also laid down in Section 6 paragraph 6.2 of the 2014 revised International Safety Management (ISM) Code and Section 4 - paragraph 28 of part B of the International Ship and Port Facility Security (ISPS) Code.

Prior to the submission of a ship registration's file, every Company applying for a MSMD must propose to this maritime administration the level of manning (numbers and ranks) that it considers suitable to meet:

- ✓ the operational requirements;
- ✓ the trading area;
- ✓ the watch system in place on board; and
- ✓ the category of the ship.

In determining what constitutes the minimum safe manning level for a ship, useful guidance may be obtained by use of risk and hazard management tools such as formal safety assessment.

In principle, the minimum safe manning levels should be those required for all reasonably foreseeable circumstances and working conditions to permit the safe operation of the ship under normal conditions: navigation, security, routine maintenance duties but also to deal with any sort of emergency situations that may unexpectedly arise at sea (e.g. accident, pollution of the environment, ...).

In order to meet the criteria of IMO Resolution A.1047 (27), each Company must observe and follow the principles referred to in Annexes A and C and take into particular account the

---

<sup>1</sup> Company is the entity responsible for the management of the ship in accordance with the ISM Code. For ships that are not required to comply with the ISM Code, Company is the entity as defined in STCW Convention Regulation I/1.25).

guidelines set out in Annexes B and D, as well as in Article 3 paragraph 5 of Regulation 725/2004/EC of 31 March 2004.

The Company must also ensure that regardless of their category and/or function, seafarers serving on board passenger ships, tankers, high-speed craft (HSC) or mobile offshore and drilling units (MODUs) meet the new requirements of the STCW Convention and the STCW Code for additional training, experience and certification. This training should also include security related matters.

Furthermore, the Company and the Master shall guarantee that all persons joining a ship or a MODU are immediately given appropriate familiarization training with respect to the ship for emergency, safety, security and survival in addition to their respective duties and functions.

A specific application form (see appendix) must be filled in and forwarded to the CAM supported by the following set of documents:

- the general arrangement plan, with details of the navigational bridge, engine room and accommodations details;
- the safety plan;
- the muster list;
- the table specifying the work organization on board; and
- a specimen of the record of working hours / rest periods of the crew members

Whilst major changes in the total crew on board are not anticipated as a result of the entry into force of the 2010 Manila Amendments, shipowners should be aware that the MSMD of a ship may be withdrawn if:

.1 the company fails to submit a new proposal for the MSMD within the agreed time frame and/or whenever the trading area(s) of the ship changes;

.2 there are issues concerning the construction, machinery, equipment or operation and maintenance that may affect the minimum safe manning level of the ship or

.3 there are clear grounds for believing that the ability of the seafarers to maintain watchkeeping standards as required by the STCW Convention, as amended, has been compromised because:

- ✓ the ship has been involved in a collision, grounding or stranding;
- ✓ there has been an illegal discharge of substances from the ship when underway, at anchor or at berth;
- ✓ the ship has been manoeuvring in an erratic and/or unsafe manner whereby routing instructions adopted by the IMO or safe navigation practices and procedures have not strictly been adhered to;
- ✓ the ship's security has been put at risk;
- ✓ the ship is otherwise being operated in such a manner as to pose a danger to persons, property or the environment; and
- ✓ the Flag Compliance Inspection and/or the audit records for the ship lead to the conclusion that the manning level is not sufficient

Likewise, CAM is entitled to review, withdraw or reissue as appropriate a MSMD of a ship that persistently fails to be in compliance with the requirements concerning the hours of work and rest of seafarers as referred to in Section A-VIII/1 paragraphs 2 and 3 of the STCW Code and Regulation 2.3 Standard A.2.3 - Hours of work and hours of rest - point 4 paragraph b) of the Maritime Labour Convention (MLC).

Please note carefully that Regulation I/4 of the STCW Convention, as amended, enables Port State Authorities to verify conditions on any ship and therefore control visits by Port State Control Officers may take place anywhere at any time.

It remains the Company's duty to verify with their Recognised Organisations (ROs) and/or Recognised Security Organisations (RSOs) if any changes are now needed to the ISM safety management system and/or ISPS ship security plan as a result of the entry into force of the 2010 Manila Amendments.

Adequate dissemination of this information within your company and to the Luxembourg flagged vessels which are affected is requested.



(s) Robert BIWER  
Government Commissioner  
for maritime affairs

**Encs:**

ANNEX A - GUIDELINES FOR THE APPLICATION OF PRINCIPLES OF MINIMUM SAFE MANNING

ANNEX B - GUIDELINES FOR DETERMINATION OF MINIMUM SAFE MANNING

ANNEX C - RESPONSIBILITIES IN THE APPLICATION OF PRINCIPLES OF MINIMUM SAFE MANNING

ANNEX D - FRAMEWORK FOR DETERMINING MINIMUM SAFE MANNING

## ANNEX A

### GUIDELINES FOR THE APPLICATION OF PRINCIPLES OF MINIMUM SAFE MANNING

#### **1 INTRODUCTION**

1.1 These Guidelines should be used in applying the principles of minimum safe manning set out in section 3 to ensure the safe operation of ships to which article III of the 1978 STCW Convention, as amended, applies, and the security of ships to which chapter XI-2 of the 1974 SOLAS Convention, as amended, applies, and for the protection of the marine environment.

1.2 The Administration may retain or adopt arrangements which differ from the provisions herein recommended and which are especially adapted to technical developments and to special types of ships and trades. However, at all times the Administration should satisfy itself that the detailed manning arrangements ensure a degree of safety at least equivalent to that established by these Guidelines.

#### **2 OBJECTIVES**

2.1 The objectives of these Guidelines are to ensure that a ship is sufficiently, effectively and efficiently manned to provide safety and security of the ship, safe navigation and operations at sea, safe operations in port, prevention of human injury or loss of life, the avoidance of damage to the marine environment and to property, and to ensure the welfare and health of seafarers through the avoidance of fatigue. These objectives can be achieved through the following:

- .1 adoption of a goal-based approach;
- .2 standard procedures for effective implementation; and
- .3 effective enforcement.

#### **3 PRINCIPLES OF MINIMUM SAFE MANNING**

3.1 The following principles should be observed in determining the minimum safe manning of a ship:

- .1 the capability to:
  - .1.1 maintain safe navigational, port, engineering and radio watches in accordance with regulation VIII/2 of the 1978 STCW Convention, as amended, and also maintain general surveillance of the ship;
  - .1.2 moor and unmoor the ship safely;
  - .1.3 manage the safety functions of the ship when employed in a stationary or near-stationary mode at sea;
  - .1.4 perform operations, as appropriate, for the prevention of damage to the marine environment;
  - .1.5 maintain the safety arrangements and the cleanliness of all accessible spaces to minimize the risk of fire;
  - .1.6 provide for medical care on board ship;

- .1.7 ensure safe carriage of cargo during transit;
- .1.8 inspect and maintain, as appropriate, the structural integrity of the ship;
- .1.9 operate in accordance with the approved Ship's Security Plan;

and

.2 the ability to:

- .2.1 operate all watertight closing arrangements and maintain them in effective condition, and also deploy a competent damage control party;
- .2.2 operate all onboard fire-fighting and emergency equipment and life-saving appliances, carry out such maintenance of this equipment as is required to be done at sea, and muster and disembark all persons on board; and
- .2.3 operate the main propulsion and auxiliary machinery including pollution prevention equipment and maintain them in a safe condition to enable the ship to overcome the foreseeable perils of the voyage.

3.2 The following onboard functions, when applicable, should also be taken into account:

- .1 ongoing training requirements for all personnel, including the operation and use of fire-fighting and emergency equipment, life-saving appliances and watertight closing arrangements;
- .2 specialized training requirements for particular types of ships and in instances where crewmembers are engaged in shipboard tasks that cross departmental boundaries;
- .3 provision of proper food and drinking water;
- .4 need to undertake emergency duties and responsibilities; and
- .5 need to provide training opportunities for entrant seafarers to allow them to gain the training and experience needed.

*O o O o O o O o O o O*

## ANNEX B

### GUIDELINES FOR DETERMINATION OF MINIMUM SAFE MANNING

#### **1 DETERMINATION OF MINIMUM SAFE MANNING**

1.1 The minimum safe manning of a ship should be established taking into account all relevant factors, including the following:

- .1 size and type of ship;
- .2 number, size and type of main propulsion units and auxiliaries;
- .3 level of ship automation;
- .4 construction and equipment of the ship;
- .5 method of maintenance used;
- .6 cargo to be carried;
- .7 frequency of port calls, length and nature of voyages to be undertaken;
- .8 trading area(s), waters and operations in which the ship is involved;
- .9 extent to which training activities are conducted on board;
- .10 degree of shoreside support provided to the ship by the company;
- .11 applicable work hour limits and/or rest requirements; and
- .12 the provisions of the approved Ship's Security Plan.

1.2 The determination of the minimum safe manning of a ship should be based on performance of the functions at the appropriate level(s) of responsibility, as specified in the STCW Code, which include the following:

- .1 navigation, comprising the tasks, duties and responsibilities required to:
  - .1 plan and conduct safe navigation;
  - .2 maintain a safe navigational watch in accordance with the requirements of the STCW Code;
  - .3 manoeuvre and handle the ship in all conditions; and
  - .4 moor and unmoor the ship safely;
- .2 cargo handling and stowage, comprising the tasks, duties and responsibilities required to plan, monitor and ensure safe loading, stowage, securing, care during the voyage and unloading of cargo to be carried on the ship;
- .3 operation of the ship and care for persons on board, comprising the tasks, duties and responsibilities required to:

- .1 maintain the safety and security of all persons on board and keep life-saving, fire-fighting and other safety systems in operational condition;
  - .2 operate and maintain all watertight closing arrangements;
  - .3 perform operations, as appropriate, to muster and disembark all persons on board;
  - .4 perform operations, as appropriate, to ensure protection of the marine environment;
  - .5 provide for medical care on board the ship; and
  - .6 undertake administrative tasks required for the safe operation and the security of the ship;
- .4 marine engineering, comprising the tasks, duties and responsibilities required to:
- .1 operate and monitor the ship's main propulsion and auxiliary machinery and evaluate the performance of such machinery;
  - .2 maintain a safe engineering watch in accordance with the requirements of the STCW Code;
  - .3 manage and perform fuel and ballast operations; and
  - .4 maintain safety of the ship's engine equipment, systems and services;
- .5 electrical, electronic and control engineering, comprising the tasks, duties and responsibilities required to:
- .1 operate the ship's electrical and electronic equipment; and
  - .2 maintain the safety of the ship's electrical and electronic systems;
- .6 radiocommunications, comprising the tasks, duties and responsibilities required to:
- .1 transmit and receive information using the radio equipment of the ship;
  - .2 maintain a safe radio watch in accordance with the requirements of the ITU Radio Regulations and the 1974 SOLAS Convention, as amended; and
  - .3 provide radio services in emergencies; and
- .7 maintenance and repair, comprising the tasks, duties and responsibilities required to:
- .1 carry out maintenance and repair work to the ship and its machinery, equipment and systems, as appropriate to the method of maintenance and repair used.

1.3 In addition to the factors and functions in paragraphs 1.1 and 1.2, the determination of the minimum safe manning should also take into account:

- .1 the management of the safety, security and protection of the environment functions of a ship at sea when not under way;



.2 except in ships of limited size, the provision of qualified deck officers to ensure that it is not necessary for the master to keep regular watches by adopting a three-watch system;

.3 except in ships of limited propulsion power or operating under provisions for unattended machinery spaces, the provision of qualified engineer officers to ensure that it is not necessary for the chief engineer to keep regular watches by adopting a three-watch system;

.4 the maintenance of applicable occupational health and hygiene standards on board; and

.5 the provision of proper food and drinking water for all persons on board, as required.

1.4 In determining the minimum safe manning of a ship, consideration should also be given to:

.1 the number of qualified and other personnel required to meet peak workload situations and conditions, with due regard to the number of hours of shipboard duties and rest periods assigned to seafarers; and

.2 the capability of the master and the ship's complement to coordinate the activities necessary for the safe operation and for the security of the ship and for the protection of the marine environment.

*O o O o O o O o O o O*

## ANNEX C

### RESPONSIBILITIES IN THE APPLICATION OF PRINCIPLES OF MINIMUM SAFE MANNING

#### **1 RESPONSIBILITIES OF COMPANIES**

1.1 The Administration may require the company responsible for the operation of the ship to prepare and submit its proposal for the minimum safe manning of a ship in accordance with a form specified by the Administration.

1.2 In preparing a proposal for the minimum safe manning of a ship, the company should apply the principles, recommendations and guidelines contained in this resolution and should be required to:

.1 make an assessment of the tasks, duties and responsibilities of the ship's complement required for its safe operation, for its security, for protection of the marine environment, and for dealing with emergency situations;

.2 ensure that fitness for duty provisions and record of hours are implemented;

.3 make an assessment of numbers and grades/capacities in the ship's complement required for its safe operation, for its security, for protection of the marine environment, and for dealing with emergency situations;

.4 prepare and submit to the Administration a proposal for the minimum safe manning based upon the assessment of the numbers and grades/capacities in the ship's complement required for its safe operation, for its security and for protection of the marine environment, justifying the proposal by explaining how the proposed ship's complement will deal with emergency situations, including the evacuation of passengers, where necessary;

.5 ensure that the minimum safe manning is adequate at all times and in all respects, including meeting peak workload situations, conditions and requirements, and is in accordance with the principles, recommendations and guidelines contained in this resolution; and

.6 prepare and submit to the Administration a new proposal for the minimum safe manning of a ship in the case of changes in trading area(s), construction, machinery, equipment, operation and maintenance or management of the ship, which may affect the safe manning.

#### **2 APPROVAL BY THE ADMINISTRATION**

2.1 A proposal for the minimum safe manning of a ship submitted by a company to the Administration should be evaluated by the Administration to ensure that:

.1 the proposed ship's complement contains the number and grades/capacities of personnel to fulfil the tasks, duties and responsibilities required for the safe operation of the ship, for its security, for protection of the marine environment and for dealing with emergency situations; and

.2 the master, officers and other members of the ship's complement are not required to work more hours than is safe in relation to the performance of their duties and the safety of the ship and that the requirements for work and rest hours, in accordance with applicable national regulations, can be complied with.

2.2 In applying such principles, Administrations should take proper account of existing IMO, ILO, ITU and WHO instruments in force which deal with:

- .1 watchkeeping;
- .2 hours of work or rest;
- .3 safety management;
- .4 certification of seafarers;
- .5 training of seafarers;
- .6 occupational health and hygiene;
- .7 crew accommodation;
- .8 security;
- .9 radiocommunications.

2.3 The Administration should require a company to amend a proposal for the minimum safe manning of a ship if, after evaluation of the original proposal submitted by the company, the Administration is unable to approve the proposed composition of the ship's complement.

2.4 The Administration should only approve a proposal for the minimum safe manning of a ship and issue accordingly a minimum safe manning document if it is fully satisfied that the proposed ship's complement is established in accordance with the principles, recommendations and guidelines contained in this resolution, and is adequate in all respects for the safe operation and the security of the ship and for the protection of the marine environment.

2.5 The Administration may withdraw the minimum safe manning document of a ship if the company fails to submit a new proposal for the ship's minimum safe manning when changes in trading area(s), construction, machinery, equipment or operation and maintenance of the ship have taken place which affects the minimum safe manning.

2.6 The Administration should review and may withdraw, as appropriate, the minimum safe manning document of a ship which persistently fails to be in compliance with rest hours requirements.

2.7 The Administration should consider the circumstances very carefully before allowing a minimum safe manning document to contain provisions for less than three qualified officers in charge of a navigational watch, while taking into account all the principles for establishing safe manning.

*O o O o O o O o O o O o*



## ANNEX D

### FRAMEWORK FOR DETERMINING MINIMUM SAFE MANNING

#### **PREAMBLE**

This framework has been developed to assist Administrations and companies in determining minimum safe manning.

#### **STEPS FOR DETERMINING MINIMUM SAFE MANNING**

##### **1 Submission from the company**

1.1 Submission of a proposal from the company for minimum safe manning defining the nature of the operation of the ship; and

1.2 Submission needs to take into account the requirements of Annexes 3 and 4 in the context of the management of the safety, security and protection of the marine environment functions of a ship.

1.3 The process outlined below should enable companies to achieve greater depth and insight into the interdependencies and interactions of operational elements that influence the amounts of crewmember workload and, ultimately, the proposed minimum safe manning level.

##### **Operational functions**

1.4 Beginning this process requires the break down of the operational elements into functions. Annex 3 provides guidance on the relevant functions that need to be considered, however, this list is not exclusive. Each function can then be broken down into a task list that includes the attributes listed below.

.1 **Duration:** What is the time required to execute each task? Time in this case is measurement of total man hours versus the actual duration taken for task completion, since some tasks can be done in a shorter time by using multiple individuals.

.2 **Frequency:** How often is the task performed? This can be categorized using some form of standard interval (i.e. hourly, daily, weekly, etc.).

.3 **Competence:** What are the skills, training and qualifications needed to consistently perform the task properly?

.4 **Importance:** What is the risk or consequence associated with improper performance?

##### **Operational factors**

1.5 Once a function is broken down into specific tasks and their attributes, it is then necessary to determine the specific personnel qualifications, operational policy and procedures, and infrastructure/technology necessary to perform each task. It is important to recognize that these elements may increase or decrease manning levels depending on availability and appropriate procedures and of specific capability enabling technology / automation.

##### **Task capability**

1.6 The information generated in defining the operational factors and functions should be used to determine how many tasks that can be executed by an individual under the possible range of operational conditions. Critical considerations, while conducting this step, are human element limitations and relevant standards and regulations. These include sleep and circadian requirements,

physical and mental workload associated with each task, and exposure limits to shipboard environmental conditions such as noise, temperature and toxins.

### **Workload assessments**

1.7 Once steps relating to operational functions, operational factors and task capability have been conducted, the information is then used to determine whether workload will not exceed the minimum hours of rest and/or work as provided in relevant national and international regulations. Considerations, while performing this step, include work period lengths, work schedule designs and whether a single crew member can execute the tasks set in a specific work period or work period(s) per work day.

### **2 Evaluation by the Administration**

2.1 The Administration should evaluate/approve the submission of the company against relevant national and international regulatory requirements and guidelines.

2.2 Having evaluated and approved the proposal the Administration should issue a minimum safe manning document including special requirements and conditions.

### **3 Maintenance of minimum safe manning document**

A company should advise the Administration of any changes that would affect the minimum safe manning document, and in such circumstances prepare and submit a new proposal taking into account Annex C.

### **4 Compliance monitoring**

The Administration should periodically review the minimum safe manning arrangements.

*O o O o O o O o O o O*