

International Transport Workers' Federation Maritime Safety Committee Consolidated documents

March 2021

The ITF Maritime Safety Committee (ITF MSC) is a technical arm of the ITF Seafarers' Section Committee (ITF SSC) undertaking all issues related to the safety of professional maritime workers. The ITF MSC is in coordination with the ITF Secretariat – ITF Accredited Representative to the IMO - and the Maritime Safety Committee Steering Group (ITF MSC SG) which operates under terms of reference.

The terms of reference for ITF MSC and ITF MSC SG are attached in this document.

ITF MSC members are elected to participate in particular meetings at the IMO and other fora pertaining to their expertise. When representing the ITF, members are entitled as experts. The ITF MSC upholds the profoundness of learning process of individuals. In order to facilitate the participation at the IMO and other fora, elected ITF MSC experts are supported by various types of training and mentorship programs to enhance further prospective outcomes for individuals and the organization.

The dedicated web section about the work of the ITF MSC can be found here: <u>'The IMO' in the ITF Global website</u>.

Recognising the highly interconnected nature of the agenda we deal with, the cooperation amongst the experts of the ITF MSC continues throughout the year.

The ITF MSC has 5 prioritised projects, as of October 2019, the updated 2021 policy statements are:

- Human Element;
- Manning;
- Ships Automation;
- STCW and STCW F; and
- Environment and issues affecting seafarer safety.

Terms of reference

ITF Seafarers' Section Maritime Safety Committee

Purpose

- 1. The Maritime Safety Committee (ITF MSC) is established to represent seafarers' interest within relevant maritime fora to promote ITF policies and secure the protection or enhancement of Seafarers rights and working environment within the IMO and other relevant fora.
- 2. The ITF MSC will formulate strategies and assist with the drafting and research on relevant technical issues to provide recommendations to the IMO Accredited Representative (IMO Rep) and Seafarers Section Committee (SSC).
- 3. In Co-ordination with the IMO Rep and the Maritime Safety Committee Steering Group (Steering Group), the ITF MSC agree to undertake the responsibility to provide the technical expertise on matters relevant to progress the key projects identified in the work plan, including the nomination of correspondence working group to research, draft and complete submission documents within set deadlines as required

Reporting and relationship with other bodies

- 4. The ITF MSC reports to the SSC.
- 5. Additionally, the ITF MSC coordinates with ITF Dockers, Fisheries and Inland Navigation Sections, Cruise Ship Task Force, Offshore Task Force Group and the European Transport Workers' Federation and other third parties as appropriate to provide support on areas of mutual interest.

Responsibilities

- 6. The ITF MSC's core responsibilities include:
 - Lobby the IMO governmental delegations INGOs and NGOs to co-sponsor position documents to gain advantages for seafarers;
 - Participate in IMO meetings, covering most of the working and drafting groups, on issues affecting the health and safety, training, security of seafarers, and those regarding further development of regulations;
 - Participate and contribute in IMO correspondence groups on agreed activities;

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- Provide expertise to research, draft documents and complete tasks on agreed activities to assist the IMO Rep;
- Closely monitor IMO work to secure better alignment with the MLC 2006 and other relevant ILO instruments;
- Assist with communication strategies for various target groups; and

 Cooperate and coordinate, where appropriate, with the national unions and administrations on surveys, reports and education on issues in relation to seafarers' health, safety, wellbeing and marine environment.

Composition

- 7. The ITF MSC shall appoint a Chair and Vice Chair, plus 18 ordinary members.
- 8. The composition of the ITF MSC shall be formulated to address the IMO Committees and Sub-Committees as detailed below, ensuring one representative and up to two experts per IMO Committee/Sub-Committee:
 - Maritime Safety Committee (MSC)
 - Maritime Environment Protection Committee (MEPC)
 - Legal Committee (LEG)
 - Facilitation Committee (FAL)
 - Sub-Committee on ship design and construction (SDC)
 - Sub-Committee on pollution prevention and response (PPR)
 - Sub-Committee on navigation communications and search and rescue (NCSR)
 - Sub-Committee on human element, training and watch-keeping (HTW)
 - Sub-Committee on carriage of cargoes and containers (CCC)
 - Sub-Committee on implementation of IMO instruments (III)
 - Sub-Committee on ships systems and equipment (SSE)
- 9. Additionally, the ITF MSC needs to have a balance of representation from beneficial ownership, labour supply, officers and ratings unions as well as a regional balance. Furthermore, there should be a consideration of gender equality and youth involvement.
- 10. The ITF MSC shall review the composition annually, in order to take into account their union responsibilities and availability to effectively support the work.

Meetings

- 11. The ITF secretariat shall call meetings of the ITF MSC only when necessary, although it is understood that there should be at least one meeting a year. If necessary the ITF secretariat will, in consultation with the chair, establish *ad hoc* working groups to pursue urgent aspects or to consider specific technical issues.
- 12. The operational language of the meeting is English.
- 13. Costs relevant to the ITF MSC members shall be covered by the ITF. Other participants shall be for the account of the affiliates concerned.

Terms of reference ITF Seafarers' Section Maritime Safety Committee Steering Group

Purpose

- 1. The Maritime Safety Committee Steering Group's (Steering Group) decision-making powers are delegated by the ITF Maritime Safety Committee (MSC).
- 2. The Steering Group is established to handle interim guidance and decision, with the ITF Accredited Representative to the IMO (IMO Rep) to formulate strategies and provide recommendations to the ITF MSC to be approved by the Seafarers Section on all issues relating to maritime safety, health and security including manning, training and related environmental protection issues.

Reporting and relationship with other bodies

3. The Steering Group reports to the ITF MSC and Seafarers' Section Committee (SSC).

Responsibilities

- 4. The Steering Group's core responsibilities, in addition to those of the ITF MSC include:
 - a. To oversee the actual implementation of the work at the IMO;
 - b. Make proposals to the ITF MSC for IMO submissions;
 - c. To provide advice for work with national administrations on issues that are of the seafarers' interests; and
 - d. To lead on projects identified and prioritised by the ITF MSC.

Composition

5. The composition of the Steering Group shall be determined by the ITF MSC and should comprise of the Chair and Vice Chair, plus four further ITF MSC members who must be from different affiliates, representing officers and ratings in balance.

Meetings

- 6. The ITF secretariat shall call meetings of the Steering Group only when necessary, although it is understood that there should be two meetings a year, and where possible one should be held in conjunction with the SSC and the other one in conjunction with the ITF MSC.
- 7. The operational language of the meeting is English.
- 8. Costs relevant to the participation of steering group members shall be covered by the ITF.

ITF MARITIME SAFETY COMMITTEE POLICY STATEMENT ON HUMAN ELEMENT

Background

The human element is defined by the IMO:

as a complex multi-dimensional issue that affects maritime safety, security and marine environmental protection. It involves the entire spectrum of human activities performed by ships' crews, shore-based management, regulatory bodies, recognized organizations, shipyards, legislators, and other relevant parties, all of whom need to co-operate to address human element issues effectively (Resolution A.947(23)).

The application of 'Human element' is not only confined to activities performed by human in the maritime industry, but also encompasses all principles that ensure safe, secure and sustainable world trade and the environment for the sustainability of the mankind, enshrined throughout the UN Sustainable Development Goals (UN SDGs). The role of the ITF in the IMO and other fora is to represent and speak on behalf of the international workers in all maritime industries in the development of the regulatory framework that affects all levels of human activities within the maritime industry and marine environment.

The core principle of the ITF in this manner is that 'human is the centre of any development', with the following prioritised areas in connection with and under the umbrella of Human element, by the ITF MSC:

- 1) Manning;
- 2) Ship automation;
- 3) STCW/STCW-F; and
- 4) Environment and issues affecting seafarer safety.

General statements and Assumptions

1. Manning

Manning, in connection to human element, represents the appropriate number of competent personnel that is essential to enhance the sustainability of the industry and the protection of marine environment (refer to ITF MSC Manning policy).

Assumptions: The industry is continuously evolving technologically, culturally, politically and economically. Pursuing traditional manning will not enable the sector to pace this movement.

2.Ship automation

Introduction of advanced technology is to support humans to perform safe and secure navigation and operation of a ship (refer to ITF MSC policy statement on ship automation, 2021).

Assumptions: Digitalised communication and data exchange technology, and automated systems are changing the way ships are managed and operated. There will be a need for maritime human element to adapt to additional new skills and competences as well as interactions with other industry sectors when working with such technology both onboard and ashore.

3. STCW/STCW-F

Education and training of human element are a critical element, including recognition of the importance of life-long learning for individual career development that are the foundations of sustainability in every sector. STCW 78, as amended and 1995 STCW-F, as amended, set minimum international standards for such foundations in all maritime industry. Therefore, periodic comprehensive review and constant updates projecting dynamics of continuously evolving global supply chain are essential (refer to ITF MSC policy on STCW/STCW-F, 2021).

Assumptions: The prospective life-long learning education and certification schemes for maritime and fisheries human element need appropriate and timely review to ensure humans are in the centre of any development in the industry.

4. Environment and issues affecting seafarers

In pursuing UN SDGs, climate action from shipping and fisheries requires global endeavours and commitment by all human elements. The industry strives to protect marine environment via a number of regulatory, operational and technical measures (refer to ITF MSC policy statement on environment and issues affecting seafarers, 2021).

Assumptions: The ITF is concerned that amongst measures put in practice could compromise the safety and security of inner shipboard environment, which put professional maritime workers in all industries at stake, consequently, the goal of protecting the marine environment cannot be achieved.

Planned Actions

- 1. Make sure the international regulatory considers human element as priority.
- 2. Streamline the other four ITF MSC policy statements, referenced in this document, with this policy statement.
- 3. The ITF Mexico City Policy is under comprehensive review. Ensure the definition of IMO's human element is adequately embedded in the review and consider further ways to apply the reviewed Policy in the work at the IMO and other fora.
- 4. To ensure human element is fully considered in international shipping, continue;
 - participating and cooperating with governments and industry group activities; and
 - engaging in research projects where possible with other relevant institutions.
- 5. Participate in the work of the IMO to promote effective uniform implementation and enforcement by flag/port States of the IMO minimum rest hours and manning level guidelines, as well as seafarers' rights, mandated by the ILO MLC 2006, as amended.

ITF MANNING POLICY

Part A. Manning policy

Objectives

The objectives of this policy are to ensure that any ship, to which an ITF approved or national agreement applies, 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.

Definition of Company: The Owner of the ship or any other organization or person such as the Manager, or the Bareboat Charterer, who has assumed the responsibility for operation of the ship from the Shipowner and who on assuming such responsibility has agreed to take over all the duties and responsibility imposed by the ISM Code.

General Principles

The Company should ensure that the ship is manned with qualified, certificated and medically fit seafarers in accordance with National and International requirements; and appropriately manned in order to encompass all aspects of operational safe manning.¹

1. In preparing a proposal for the manning level of a ship, The Company must:

- 1. make an assessment of the tasks, duties, competence, and responsibilities of the ship's complement as required for its safe operation, security for the crew and protection of the marine environment and for dealing with unforeseen events or emergency situations;
- 2. prepare and justify manning level proposals based on; tasks, duties, competence, safe operation, security for the crew and protection of the marine environment, competence to deal with unforeseen events or emergency situations, including evacuation of passengers where applicable; and
- 3. ensure that the manning level is adequate at all times and in all respects, possesses the appropriate competence to get the ship back to normal operating condition or safe to port, meet work peak situations, conditions and requirements, and is in accordance with the regulations, principles, recommendations and guidelines from the Organization.

¹ References to the ISM Code Section 6 and IMO Assembly Resolution. 1047(27)

2. In conjunction with these factors, and to ensure that personnel do not work more hours than is safe, the Company must:

- 1. Identify all the functions to be undertaken onboard during a representative voyage or operational period, including determination of the number of personnel required to undertake the relevant tasks and duties under both peak and routine workload conditions;
- 2. Identify those functions that constitute normal operations and determine the minimum numbers of personnel required to undertake the concurrent tasks and duties safely;
- 3. Identify the competences, skills and experience required to perform those functions;
- 4. Establish working arrangements to ensure that the Master and crew are capable of undertaking concurrent and continuing operations at the appropriate level of responsibility, as specified, with respect to their skills and training; and
- 5. Ensure that the working arrangements allow sufficient rest periods to avoid fatigue, drawing up work schedules accordingly.
- 3. In applying these principles, proper account must be taken of the IMO Resolution A. 1047 (27) *Principles of minimum Safe Manning*, the ILO Maritime Labour Convention (MLC) and other relevant instruments of the ILO, ITU and WHO with respect to:
 - 1. watchkeeping;
 - 2. hours of work and hours of rest;
 - 3. safety management;
 - 4. certification of seafarers;
 - 5. training of seafarers;
 - 6. occupational health and hygiene; and
 - 7. crew accommodation.

Establishing Manning Requirements

- 1. For their safe operation according to the nature of their work, all ships must be sufficiently manned.
- 2. The 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, and high voltages;
 - 3. level of ship digitalisation, automation and complexity;
 - 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. applicable maximum hours of work limits and minimum hours of rest requirements;
- 11. measures to avoid fatigue;
- 12. observance of industrial safety and health requirements and procedures;
- 13. seafarers' welfare provisions;
- 14. ship's security provisions;
- 15. catering needs;
- 16. sanitary regulations;
- 17. watchkeeping arrangements;
- 18. medical care aboard ship; and
- 19. duties in connection with cargo handling in port and at sea².

Determination of manning

The determination of manning of a ship should be based on performance of the functions at the appropriate level(s) of responsibility, as specified in International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW) and the International Safety Management Code (ISM Code), which include the following:

1. watchkeeping:

- manage and plan to conduct safe navigation;
- manage and maintain a safe navigational watchkeeping;
- manage and manoeuvre and handle the ship in all conditions; and
- manage and moor and unmoor the ship safely.

2. cargo operation

- plan;
- monitor and ensure safe cargo operations;
- stowage;
- securing; and
- care during the voyage.

²Cross references to the dockers' clauses of ITF TCC and IBF agreements

3. operation of the ship and care for persons on board:

- manage and maintain the safety and security of all persons on board and keep life-saving, firefighting and other safety systems in operational condition;
- manage and operate and maintain all watertight closing arrangements;
- manage and perform operations, as appropriate, to muster and disembark all persons on board;
- manage and perform operations, as appropriate, to ensure protection of the marine environment;
- manage and provide for medical care on board the ship; and
- manage and undertake administrative tasks required for the safe operation and the security of the ship.

4. engineering:

- manage and operate and monitor the ship's main propulsion and auxiliary machinery and evaluate the performance of such machinery;
- manage and maintain a safe engineering watch;
- manage and perform fuel and ballast operations; and
- manage and maintain safety of the ship's systems, equipment and services.

5. electrical, electronic and control engineering:

- manage and operate the ship's electrical and electronic equipment, high voltages; and
- manage and maintain the safety of the ship's communication, electrical and electronic systems.

6. radiocommunications:

- transmit and receive information using the radio equipment of the ship;
- maintain a safe radio watch³; and
- provide radio services in emergencies.

7. maintenance and repair:

carry out maintenance and repair work to the ship's systems and equipment, as appropriate to the method of maintenance and repair used.

Additional factors

In addition to the factors and functions in paragraphs above, the determination of the manning must also take into account:

1. 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;

³ the ITU Radio Regulations and the International Convention for the Safety of Life at Sea (SOLAS)

- 2. the number of qualified 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
- 3. the management of the safety, security and protection of the crew and marine environment when not underway.
- 4. the observance of *a three-watch system* to ensure that:
 - 1. the Master is not asked to stand regular watches by adopting a three-watch system.
 - 2. the composition of a navigational watch comprises one (or more) qualified Officers supported by appropriately qualified Ratings.
 - 3. the actual number of Officers and Ratings on watch at a particular time will depend on the prevailing circumstances and conditions.
 - 4. the certified deck watch/lookout ratings shall be part of the crew to be able to maintain three-watch system. The ITF does not consider it safe for the officer in charge of the navigational watch to act as sole look-out during periods of darkness or restricted visibility.
 - 5. the Chief Engineer officer is not asked to stand regular watches by adopting a three-watch system.

5. Health and Safety

- 1. the maintenance of applicable occupational health and hygiene standards on board; and
- 2. the provision of proper food and drinking water for all persons on board, as required.

Hours of work and hours of rest

- 1. The limits on hours of work and hours of rest shall be as follows:
 - 1. maximum hours of work shall not exceed:
 - 14 hours in any 24-hour period; and
 - 72 hours in any 7-day period;
 - 2. minimum hours of rest shall not be less than:
 - 10 hours in any 24-hour period; and
 - 77 hours in any 7-day period.

Hours of rest may be divided into no more than two periods, one of which shall be at least 6 hours in length, and the interval between consecutive periods of rest shall not exceed 14 hours.

- 2. Records must be kept of hours of work and hours of rest so that they can be checked to ensure compliance with the regulations.
- 3. When a seafarer is on call, such as when a machinery space is unattended, the seafarer shall have 6 consecutive hours of rest if the normal hours of rest is disturbed by call-outs to work.
- 4. Sufficient time should be allowed for all meals as well as short breaks.
- 5. Measures shall be taken to ensure protection of young seafarers.
- 6. Cadets shall not work more than 8 hours per day.
- 7. Manning levels also have to take into account the requirement for seafarers working in catering and food services.
- 8. Ships' Cooks have to be appropriately trained and qualified for the job. However, on ships with less than ten crew or in exceptional cases for a period no longer than one month, the cook does not have to be fully qualified, but all those responsible for handling food, must be trained in matters relating to hygiene, food and its storage on board.

Part B. The ITF Manning Policy - Model Ship

| Positions | Number | Level | Certificates Competences Proficiencies |
|----------------------------------|--------|-------------|--|
| Master | 1 | Management | STCW II/2 |
| Chief mate | 1 | Management | STCW II/1 |
| Watchkeeping officers deck | 2 | Operational | STCW II/1 |
| Chief Engineer officer | 1 | Management | STCW III/2 |
| 2 nd Engineer officer | 1 | Management | STCW III/2 |
| Watchkeeping officers Engine | 2 | Operational | STCW III/1 |
| Electro-Technical Officer (ETO) | 1 | Operational | STCW III/6 |
| Electro Technical Rating (ETR) | 1 | Support | STCW III/7 |
| Bosun | 1 | Support | STCW II/5 |
| AB Deck | 3 | Support | STCW II/5 |
| Donkeyman | 1 | Support | STCW III/5 |
| AB Engine | 3 | Support | STCW III/5 |
| Chief Cook | 1 | NA | MLC |
| Cook | 1 | NA | MLC |
| Catering department personnel | 2 | NA | MLC |
| OS | 1 | Support | STCW II/4 |
| Cadets | * | | |
| Total | 23 | | |

^{*}The Company is encouraged to take into account in their manning plans the need for cadets.

Annex to Part B

General

- 1. The principles applying to the keeping of a safe watch are given in section A-VIII/2 of the STCW Code and must be followed in order to comply with the regulations.
- 2. The regulations require the Master of any ship to be responsible for the overall safety of the ship. He must also ensure that the watchkeeping arrangements are adequate for maintaining safe navigational watches at all times, including the provision of a lookout as required under the International Regulations for the Prevention of Collisions at Sea 1972, as amended (COLREG). Masters, shipowner or ship operators are reminded that the ITF does not consider it safe for the officer in charge of the navigational watch to act as sole look-out during periods of darkness or restricted visibility.
- 3. The Chief Engineer officer of any ship is required to ensure that arrangements are adequate at all times for maintaining a safe engineering watch.
- 4. In addition, the level of manning must also take into consideration:
 - 1. the management of safety functions of a ship underway, not underway or operating in near stationary mode;
 - 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;
 - 3. except in ships of limited propulsion power or operating under provisions for unattended machinery spaces, the provision of qualified engineering officers to ensure that it is not necessary for the Chief Engineer officer to keep regular watches;
 - 4. the maintenance of applicable occupational health and hygiene standards onboard; and
 - 5. the provision of proper food and drinking water for all persons onboard.

Guidance on Appropriate Manning Levels

The manning levels referred in this document are those required for all reasonably foreseeable circumstances and working conditions to permit the safe operation of the ship under any operational conditions.

Records of seafarers' daily hours of rest or hours of work must be maintained.

Given the diverse working patterns and operational cycle of some vessels, the Company must take into account the working pattern, rotation and/or work schedules of crews, the particular operational requirements of a ship or group of ships and any call-out requirements of a port, harbour or other organisation.

- **1. Offshore Vessels** -These present special problems because of the diverse nature of their operations and the conditions under which they are required to operate. The Company is reminded of the restrictions placed on working hours in Part A of this Policy and must set manning levels accordingly.
- **2. Tankers** -In addition to navigation and engineering officers, except on tankers of limited size, the Company must take into account cargo operations and include an additional officer.

International Convention for the Safety of Life at Sea, as amended (SOLAS) Regulation 14

3. Passenger and Ro-Ro Ships -The need to handle large numbers of passengers unfamiliar with the marine environment must be taken into account in determining manning levels. The Company must give attention to the requirements for minimum numbers of trained crew to take charge of life saving appliances.

References

International Convention for the Safety of Life at Sea, as amended (SOLAS) Regulation 14

International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (STCW 1978), as amended

IMO Assembly Resolution A.1047 (27) Principles of Minimum Safe Manning

IMO Assembly Resolution A.703 (17) *Training of Radio Personnel in the Global Maritime Distress and Safety System (GMDSS)*

International Safety Management (ISM) Code

The International Regulations for Preventing Collisions at Sea 1972 (CORLEG 1972), as amended

Maritime Labour Convention (MLC 2006), as amended, Regulation 2.7

Dockers' clause in the ITF TCC and IBF agreements

ITF MARITIME SAFETY COMMITTEE POLICY STATEMENT ON SHIP AUTOMATION

Background

Ship automation has had significant impacts on the maritime industry since the 1960s. Consequently, many issues have emerged, such as regulatory gaps, individual career development and path, education and training schemes, ship-shore interface, availability of infrastructure, reliability of automated systems, cybersecurity and connection to the protection of marine environment. Such issues raise risks and challenges to the safety and security of professional workers in all maritime industries.

General statements and Assumptions

1. Automation and technological advancement continue to evolve based on economic feasibility in the case of particular trades, cultural acceptance of risk inherent in complex systems, development of a regulatory regime and national administrations' policies on maritime safety, security and environmental protection. The trend has often led the rest of trades to follow suit. The quality and reliability must be assessed to seamlessly put humans in the centre of the evolution.

Assumptions: It is foreseen that operational decisions will be supplemented by the artificial intelligence (AI)/ machine learning. The shore-based monitoring, assistance and communications capability will result in greater shore-based management participation in decision making and the operation of a ship. It is essential to establish universal standards.

2. The end-users, referring to professional workers in all maritime industries, are always anticipated to adapt to changes, such as new regulations, introduction of new technologies, environmental changes and geopolitical circumstances. They have to confront any drawbacks that may turn out to be fatal for their safety and security including that of the environment through pollution threats.

Assumptions: Provision of proper education and training scheme is critical to produce professional and competent personnel to operate on ships with advanced technology. Advanced technologies will also need to overcome challenges in the complexity of activities at sea. Thus, the education and training scheme should be developed to cover all sectors and utilise water borne activities to enhance safe and secure navigation and operation as well as prevention of potential criminalisation of personnel onboard.

3. The IMO regulatory scoping exercise (RSE) for the use of maritime autonomous surface ships (MASS) was commenced to assess the applicability of MASS. The IMO will decide whether to develop a standalone Code or amend relevant regulations.

Assumptions: The requirements and provisions regarding roles and authority of maritime professionals in the advanced technological working and living environment must provide for how the new technologies would be implemented in assisting operations by humans.

4. The outlook on automation in shipping used to perceive that human labour would be replaced by machine. However, the industry recognises that this is not sustainable in the end. The direction has been deterred to put human in the centre of the development loop.

Assumptions: To ensure long-term sustainability in the sector, the industry should thoroughly consider how to achieve just transition and relocation, which can secure career development in maritime human element.

Planned Actions

- 1. Continue gathering the information regarding the cost effectiveness of automated infrastructure.
- 2. Maintain the media strategy with a consistent message to disseminate relevant information to the ITF affiliates to ensure they are informed about the coming opportunities and necessary preparations derived from the development of automation in the industry.
- 3. Recognise rapidly growing implementation of digitalisation in maritime sector and ensure all stakeholders practice their responsibilities required by international regulations in facilitating maritime professionals to adopt evolving practices of operation and technology.
- 4. Actively participate in comprehensive reviews of the STCW and STCW-F in line with the ITF MSC policy statement on STCW/STCW-F, 2021.
- 5. Consider whether available standards are harmonised and suitable for incorporation to the IMO regulatory structure.
- 6. Promote various areas where simulator technology could enhance safety and security in shipping.
- 7. Continue to promote *Just transition*.

ITF MARITIME SAFETY COMMITTEE POLICY STATEMENT ON STCW AND STCW-F

Background

The connectivity amongst different transport sectors has become more interrelated. Safety and security of professional maritime workers are an important agenda along the whole supply chain considering ship borne trades take up more than 80 per cent of world trades. Pursuing the UN Sustainable Development Goal (SDG) 4 *Quality Education*, it is of utmost importance that globally recognised international standards are implemented to provide appropriate education and training schemes for professional maritime workers across the world.

International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW 78, as amended) provides the minimum standards of knowledge, understanding, proficiency and competence for personnel who applies for a certificate that qualifies to serve and operate on a seagoing ship. The Convention and Codes go under review for comprehensive revisions in a 10-year cycle.

The International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F), 1995, as amended (The STCW-F) is a binding treaty that sets certification and minimum training requirements for crews of seagoing fishing vessels with the aim to promote the safety of life at sea and the protection of the marine environment, taking into account the unique nature of the fishing industry and the fishing working environment.

General statements and Assumptions

STCW

1. The amendments to the current STCW, as amended will bring significant impact on the entirety of a ship as well as its internal and external working and living practices.

The amendments to the STCW, from the draft, approve in accordance procedures by the IMO. Implementation at national level and finally enforcement may take longer than the next revision cycle begins. Therefore, it is crucial to continue seeking for possible improvement to compensate the time gaps between the previous amendments and the next, in order to comply with up-to-date technologies and operational requirements.

Gaps also exist in relation to standards provided in the Convention and Codes, which need updates and reviews to embed the practicality and enhance safety and security, which have direct impact on professional maritime workers.

Assumption: As of 2020, the Convention and Codes were open for possible revisions. However, it has remained unclear whether the comprehensive review would be conducted as well as whether there would be minor amendments. Besides, it should be noted that there will be a variety of propositions from different stakeholders, thus preparedness is needed. The review outcome of ITF MSC STCW Working Group is the essence for the further actions to enhance practicability of the instrument.

2. Training, certification and watchkeeping standards affect all maritime human element and beyond. Taking into account evolution the world has experienced in the last decade, the change in education and training schemes is inevitable to maintain sustainability.

Assumption: The goal of securing proper supply and meet demands of labour in the maritime sector and enhancing and providing for individual career development has a direct connection

to national economy and the global sustainability in pursuing to achieve the UN SDGs and protect the environment.

3. There is divergence of understanding by different narratives from different stakeholders, which resulted in varying interpretations, such as the usage of terms and the application of the Convention and the Code.

Furthermore, necessary changes to tasks and skills, because of the introduction of advanced technological and operational systems both onboard and ashore, have emerged as critical elements need to be updated.

Assumption: The gaps between reality and regulatory will become wider and could cause unforeseen problems unless the amendments to the Convention and the Codes are carried out in appropriate and realistic ways. Therefore, the outcome of the ITF STCW Review Working Group should be duly addressed.

STCW-F

1. The STCW-F Convention and Codes are being comprehensively reviewed by the IMO since 2016, in order to align the standards of the Convention with the current state of the fishing industry and to make available an effective instrument, which will contribute to addressing the significant safety challenges of this sector.

IMO also highlights the importance of the safety of non-SOLAS ships, which fishing vessels fall under – and prevention of Illegal, Unreported and Unregulated fishing (IUU fishing) to enhance the safety of lives on fishing vessels as well as environmental protection. Thus, the current comprehensive revision looks to streamline the STCW-F Convention and Codes and achieve such goals.

Assumption: There are unacceptable gaps between the STCW and STCW- F codes on safety and security and the ITF goal is to get them as similar as possible so they can be equivalent and/or interchangeable to the extent possible at sea with regarding to competence, certificates, navigation, operation, maintenance and safety culture.

Planned Actions

STCW

- 1. The ITF should establish a unified position on the revision based on the results of the ITF STCW Review Working Group. The following actions are needed:
 - Continue developing appropriate strategies to address and enhance the importance of safety and security related regulations in the Convention and the Code;
 - Address the identified issues the maritime industry have been experiencing throughout implementing the STCW 78;
 - Propose appropriate amendment proposals to the IMO STCW revision at HTW and MSC; and
 - Lobby all possible national, regional and international stakeholders to ensure our position to is reflected in the amendments.
- 2. Different interpretation by flag/port/coastal States needs clear texts in the Convention and the Code. In particular, definitions shall provide such clarity for effective and universal implementation.

STCW-F

- 1. The ITF shall participate in relevant fora to:
 - Propose appropriate amendment proposals to the STCW-F comprehensive revision; and
 - Lobby all possible national, regional and international stakeholders to ensure our position is reflected in the amendments.
- 2. Different interpretation by flag/port/coastal States needs clear texts in the Convention and the Codes. In particular, definitions shall provide such clarity for effective and universal implementation.
- 3. Environmental protection and technological advancement should be addressed. Adequate measures should be pursued to improve safety and health aspects.

ITF MARITIME SAFETY COMMITTEE POLICY STATEMENT ON ENVIRONMENT AND ISSUES AFFECT SEAFARER SAFETY

Background

The focal issues in international for regarding the protection of marine environment are:

- 1) Air pollution, such as the reduction of GHG emissions from ships, the IMO 2020 0.5% Sulphur limit (reducing Sulphur contents in fuel oil);
- 2) <u>Energy Efficiency of ships, such as</u> the Energy Efficiency Design Index (EEDI) and the Energy Efficiency Index for Existing Ships (EEXI) reduction rates;
- 3) Effective implementation of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention); and
- 4) Marine plastic litter.

Shipping is one of the biggest parts of the global supply chain. Therefore, maritime professionals should have the above ownership issues and a comprehensive knowledge of these in their minds. The ITF has been allying with governments and industry partners and endeavouring to urge our members to understand the importance of professional maritime workers' role in the protection of marine environment as well as to recognise the impact on the safety of human element. Our action is essential and could preserve safety and security in the maritime sector.

From a technical perspective, it is essential for maritime workers to be part of risk assessment, taking into account what challenges are present with new engine power systems and new energy resources and are aware of how to safely operate them. For instance, there can be incidents of power loss when changing fuels, lubrication issues, filter problems, leaks and fires onboard. When risk assessments show gaps, it is imperative for maritime professionals to be able to take appropriate actions. Consequently, providing proper education and training is indispensable.

General statements and Assumptions

1. Air pollution

1) One of the challenges of the IMO's goal on the reduction of GHG emissions from ships* is the varying types and characteristics of ships, cargoes, trades, charter types and how to develop appropriate regulations which are suitable for all.

Assumptions: The ITF strongly supports that when introducing operational and technical GHG emissions reduction measures, safety measures must be included. In addition, practical enforcement mechanisms should be established to make both shipowners and charterers a part of the system. If the safety and health of personnel are compromised, accidents and incidents will result in these efforts being in vain leading to more pollution and a greater threat to lives at sea.

2) IMO 2020 Sulphur limit bans ships using fuels with more than 0.5% Sulphur content, which still creates a number of technical confusions with the use of low sulphur fuel that compromises maritime workers' safety and criminalisation.

Assumptions: Concrete measures should be established for flag/port States. Master and crew undertake these in various possible circumstances, which should include clear descriptions on the responsibilities of shoreside and onboard operations. Furthermore, measures covering bunkering and charging procedures and actions to take in accidents and incidents should be annexed as well.

^{*} The IMO set the goal of 40% reduction of carbon intensity by 2030 compared to 2008 in the shipping sector, called "IMO 2030 Target".

2. Energy Efficiency of ships

To achieve the agreed reduction goals for EEDI and EEXI by the IMO, the focus should be on how to make the use of energy safe and efficient for ship and personnel, such as:

- engine power limitation (EPL);
- speed optimisation; and
- the use of quality fuels

These have significant impact on the safety and security of personnel onboard in relation to their living and working environment and operations.

1) EEXI and the imminence of the requirements by the 76th session of the Marine Environment Protection Committee (MEPC 76) in 2021 will bring changes to ship operations for not only the crew but also all stakeholders in the maritime industry. By 2023, all ships applicable to EEXI under MARPOL Annex VI will have to meet the reduction rate requirements. For instance, measures introduced as the best solution at this stage for existing ships are EPL and fuel transition from diesel to LNG.

Assumption: The industry is not fully convinced to be ready to implement those requirements in a safe manner, such as the negative consequences of derating of engine as recognised in the STCW.

2) Several technical aspects significantly impact on the safety of crew. Speed optimisation/reduction and Ship Energy Efficiency Management Plan (SEEMP) covering operational and structural measures must have close connections to the physical aspects of engine room and a ship as whole, such as temperature, pressure and power management as well as characteristics of chemicals and flash point of the fuel used.

Assumptions: Measures under discussions are to protect the external environment, the internal environment of shipboard where maritime workers live and work shall be of the focus.

3) The industry has presented a variety of marine fuel types to achieve zero emission and marine environmental protection. It is critical that the risks and particularities of each fuel type need to be thoroughly clarified and informed, including firefighting measures. As well as this, practical education, training and upskilling should be developed for professional maritime workers to handle those fuels with competency.

Assumptions: New types of fuels that have not been thoroughly evaluated, could pose risks for persons onboard and consequently, threaten the safety of ships and marine environment.

4) Negative consequences of chemical blended fuels

To meet the ISO-8217-2020 standard on very low-sulphur fuel oil (VLSFO), recognised by the IMO, the fuel is blended together with unknown chemicals which creates risks for crew, ships and the marine environment.

Engine breakdowns caused by chemical blended fuels put extra burden on crew. For instance, with the changing or overhauling of pumps, maintaining and replacing engine equipment, which could result in ships drifting without propulsion and face navigation challenges.

Assumption: It is critical to understand the accurate chemical composition and risks. Ship's safety management system (SMS) will also need to incorporate the environmental protection requirements. Appropriate education and training are needed for the protection of safety and health of the human element.

3. Effective implementation of the BWM Convention

The BWM Convention was adopted on 13 February 2004 and entered into force on 8 September 2017.

Ballast water is critical to stabilise a ship and maintain safe operating conditions, in reducing stress on the hull, providing transverse stability, improving propulsion and manoeuvrability, and compensating for weight changes.

The Convention requires all ships to be constructed accordingly and implement a proper ballast water management plan depending on a ship's route, including a record book. A risk assessment is required to take into account health and safety issues concerning types of treatment used such as, UV treatment, Gas Treatment, Electrolysis and Magnetic Separation.

Assumption: A ship needs constant maintenance, competent personnel on watch and safe and efficient plans for loading operations. Alongside this, the implementation shall not compromise criminalisation of personnel and deviation on hours of rest caused by a delay resulted from ballast water treatment.

4. Marine plastic litter

With raising concerns of pollution by plastic litter from ships, developing measures to prevent entering plastics into the sea has commenced. Short-, mid- and long-term measures including research projects are underway concerning the following topics:

- The availability and adequacy of port reception facilities;
- Marking of fishing gear mandatory, reporting of loss of fishing gear;
- Facilitating the delivery of retrieved fishing gear to shore facilities;
- Littering of plastic bottled water to the sea from ships;
- Regulating lost containers and dangerous goods going into the sea;
- Training of personnel; and
- Ensuring seafarers' awareness of the impact of marine plastic litter.

Assumptions: Any unnecessary and additional burden on professional maritime workers due to the amendments to MARPOL and the reporting system as well as any issues affecting safety and health of personnel onboard should be thoroughly contemplated.

Planned Actions

- 8. Follow up discussions at relevant IMO bodies and other for undertaking the issues stated in this document.
- 9. Disseminate the information relevant to global professional maritime workers to raise awareness over environmental issues and the pivotal roles they play.
- 10. Conduct research to develop the position of the ITF Maritime Safety Committee to enhance the safety and health and to prevent criminalisation of maritime workers. Ultimately, it should be ensured that appropriate measures are fully embedded in the regulatory policies.
- 11. Effective implementation and enforcement mechanism shall be rolled out for all stakeholders.
- 12. ITF will hold shipowners to account for ensuring crew have the required level of protection and training for health and safety.