

Guide for

Marine Health, Safety, Quality, Environmental and Energy Management



April 2020



GUIDE FOR

**MARINE HEALTH, SAFETY, QUALITY, ENVIRONMENTAL
AND ENERGY MANAGEMENT
APRIL 2020**

American Bureau of Shipping
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the State of New York 1862

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Foreword (1 April 2020)

The significant impact of management practices on the safe operation of ships has been recognized for some time. The General Assembly of the International Maritime Organization requested the Maritime Safety Committee, by resolution A.596(15), to develop, as a matter of urgency, guidelines concerning shipboard and shore-based management, and to include in the work program of both the Maritime Safety Committee and the Marine Environment Protection Committee an item on shipboard and shore-based management for the International Safety Management Code (ISM Code). The ISM Code was developed by the International Maritime Organization to provide the maritime community with an internationally recognized standard for the safe management and operation of ships and for pollution prevention. Initially adopted as resolution A. 741(18), it later was incorporated into Chapter IX of the SOLAS convention and became mandatory for oil tankers, chemical tankers, bulk carriers and cargo high-speed craft of 500 gross tonnage and upwards, and for passenger ships including passenger high-speed craft from 1 July 1998. Other cargo ships and self-propelled mobile offshore drilling units (MODUs) of 500 gross tonnage and upwards, subject to SOLAS, were required to comply by 1 July 2002.

Other management system standards have been developed, notably ISO 9001, ISO 14001, **ISO 45001 and ISO 50001**, non-specific to the maritime industry, which address management practices from the perspective of controlling quality, environmental impacts, energy performance and occupational health hazards. These standards, though not specific to the marine industry, provide useful guidance that can be employed in marine management and the operation of ships to further enhance management systems focused on the safe operating practices and prevention of pollution.

The general management system principles embodied by the ISM Code, ISO 9001, ISO 14001, **ISO 45001 and ISO 50001** have been incorporated in this Guide. These principles, where appropriate, have been "marinized" in order to bring them within the concept of the industry itself.

This revision of the Guide incorporates changes to the requirements identified in **ISO 50001:2018** standard and ISM code **2018** edition. **Additionally, requirements of OHSAS 18001 were replaced with the ISO 45001:2018 standard.** Proper implementation of these requirements should assist the Company to take a risk-based approach and establish controls as appropriate.

ABS offers this Guide to the maritime industry as a tool for enhancing marine management practices and further supporting responsible management in the operation of ships, the prevention of pollution, and improved energy performance.

This Guide becomes effective on the first day of the month of publication.

Users are advised to check periodically on the ABS website www.eagle.org to verify that this version of this Guide is the most current.

We welcome your feedback. Comments or suggestions can be sent electronically by email to rsd@eagle.org.



GUIDE FOR

MARINE HEALTH, SAFETY, QUALITY, ENVIRONMENTAL AND ENERGY MANAGEMENT

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SECTION 1 General

1 General

1.1 [s] Scope and Application (1 April 2020)

The *ABS Guide for Marine Health, Safety, Quality, Environmental and Energy Management* or the *ABS Guide for Marine Management Systems* in short, has been developed with the objective of assisting shipowners, managers, and operators to improve the safety, environmental and energy performance in the management and operation of ships. ABS recognizes the positive impact that sound management practices may have upon these areas of concern. This Guide provides the maritime industry with a model for implementation of an Integrated Management System covering these key issues.

This Guide is intended for the use of Companies operating all types of ships. Its requirements have been stated in general terms in order to have application to a wide variety of ship operations and management styles. (ISM Code 1.3)

The requirements of this Guide have been largely derived from the sound management system principles reflected in the requirements of the:

- **ISM Code** - International Management Code for the Safe Operation of Ships and for Pollution Prevention (also known as the “International Safety Management Code”),
- **ISO 9001:2015** - Quality management systems – Requirements,
- **ISO 14001:2015** - Environmental management systems – Requirements with guidance for use,
- **ISO 50001:2018** - Energy Management Systems – Requirements with guidance for use
- **ISO 45001:2018** - Occupational health and safety management systems – Requirements **with guidance for use**.

Though the requirements of this Guide have been intended to encompass the requirements of these referenced standards, users of this Guide are encouraged to obtain for themselves copies of these standards for reference. These standards and others associated with them, contain valuable information and guidance useful in understanding the fundamentals and implementation of viable management systems.

Though this Guide has been developed principally as a management system model for occupational health, safe operation, prevention of pollution, preservation of the environment, and improved energy performance, quality concerns are also addressed. While quality management focuses principally upon enhancing customer satisfaction and encouraging fulfillment of customer requirements for quality, ABS considers that the employment of quality principles can have a significant positive impact on achieving goals and objectives in the areas of safety and environmental management. The quality system requirements of this Guide provide prescriptions that are intended to help enhance a health, safety, environmental, and energy management system’s effectiveness.

Note: This Guide has excluded section 8.3 of the ISO 9001:2015 standard, Design and Development of products and services. It is recommended that this element of the ISO standard should not be excluded from the Company's management system if they have any input to the design of a vessel they are building, intend to build or a vessel they are modifying to their specific requirements. Companies applying for certification to this Guide may not be required to have this element in the scope of their audit. No other exclusion to the requirements of this Guide is permitted.

This Guide is designed to facilitate a progressive approach to an integrated management system of occupational health, safety, quality, environmental and energy concerns. The Guide identifies requirements in five categories. The categories are identified to the left of the corresponding requirement by an “s”, “q”, “e”, “h” or “En” and are explained below.

Requirements identified by an “s” are **safety** management requirements. These requirements are based mainly upon the requirements of the ISM Code but also include additional prescriptive requirements that ABS considers will enhance the goals and objectives to be achieved within this area. Safety management requirements provide the baseline requirements of this Guide and contain a number of requirements also applicable to quality, environmental, occupational health & safety, energy management. These “s” requirements are the baseline and must be implemented regardless of the notation(s) requested by the client.

Requirements identified by an “h” are **occupational health & safety** management requirements that shall be implemented together with the “s” requirements in order to properly manage both occupational health and safety management concerns. Occupational health requirements, in combination with a number of the safety requirements, address issues of concern embodied by **ISO 45001:2018**. Additionally, prescriptive requirements have been included that ABS considers can enhance the goals and objectives to be achieved within the combined areas of occupational health and safety management.

Requirements identified by a “q” are **quality** management requirements that shall be implemented together with the “s” requirements in order to properly manage both safety and quality management concerns. Quality management requirements in combination with a number of the safety requirements address issues of concern embodied by ISO 9001:2015. Additionally, prescriptive requirements have been included that ABS considers can enhance the goals and objectives to be achieved within the combined areas of safety and quality management.

Requirements identified by an “e” are **environmental** management requirements that shall be implemented in addition to the “s” requirements in order to properly manage both safety and environmental management concerns. Environmental management requirements in combination with a number of the safety management requirements address issues of concern embodied by ISO 14001:2015. Additionally, prescriptive requirements have been included that ABS considers can enhance the goals and objectives to be achieved within the areas of safety and environmental management. These requirements address environmental concerns from the perspectives of both regulatory compliance and proactive continual improvement of the management system and environmental performance.

Requirements identified by an “En” are **energy** management requirements that shall be implemented in addition to the “s” requirements in order to properly manage both safety and energy management concerns. Energy management requirements in combination with a number of the safety management requirements address issues of concern embodied by **ISO 50001:2018**. Additionally, prescriptive requirements have been included that ABS considers can enhance the goals and objectives to be achieved within the areas of safety and energy management.

Companies may choose to implement the combination of requirements suitable to their Company's goals, objectives and concerns. ABS encourages all companies to consider implementation of the Guide's requirements in their entirety as a comprehensive approach to health, safety quality, environmental and energy management.

The scope of certification chosen for the Company office should be implemented across all vessels in the fleet (see section 1.2 below). At least one vessel of each type **within the scope of Company certification** should be presented as a sample and should maintain certification to the same scope of certification as the Company's office.

As an aid to assisting clients with the implementation of a comprehensive approach, ABS has also produced the *ABS Guidance Notes for the Investigation of Marine Incidents*. While one goal of effective safety management is to reduce or eliminate incidents, accidents or near-misses, events may occur from time to time. Under such conditions, a Company is well served when it can learn from such events and use the lessons to minimize the potential for future losses. The *ABS Guidance Notes for the Investigation of Marine Incidents* outline how incidents can be investigated and their root causes determined. These Guidance Notes also provide forms and checklists for use during an investigation. These Guidance Notes can be downloaded from the ABS website at <http://www.eagle.org/rules/downloads.html>. Together with the Marine Health, Safety, Quality, Environmental and Energy Management Guide, the *ABS Guidance Notes for the Investigation of Marine Incidents* can be used to address a range of objectives of health, safety, quality, environmental and energy management programs.

Where the text in this Guide is taken directly from the cited standards, the word “shall” or “should” is to be taken to mean the same as “is to be” when **certification to applicable notation(s) is requested**.

1.2 Certification (1 April 2020)

1.2.1 [s] General

Companies may request certification to any of the optional notations (“Q”, “E”, “H” and/or “En”), or a combination thereof, provided compliance with “S” notation is also requested. The following combined notations are possible under this Guide.

- a) The safety requirements or “S”;
- b) Safety and quality requirements or “SQ”;
- c) Safety and environmental requirements or “SE”;
- d) Safety and energy requirements or “SEn”;
- e) Safety and health requirements or “HS”;
- f) Safety, quality and environmental requirements or “SQE”;
- g) Safety, quality and energy requirements or “SQEn”;
- h) Safety, environmental and energy requirements or “SEEn”;
- i) Safety, health, and quality requirements or “HSQ”;
- j) Safety, health, and environmental requirements or “HSE”;
- k) Safety, health and energy requirements or “HSEn”;
- l) Safety, quality, environmental and energy requirements or “SQEEn”;
- m) Safety, health, environmental and energy requirements or “HSEEn”;
- n) Safety, health, quality, and energy requirements or “HSQEn”;
- o) Safety, health, quality, and environmental requirements or “HSQE”, and

p) Safety, health, quality, environmental and energy requirements or “HSQEEEn”

Companies seeking certification to this Guide must, as a condition of certification, conform to the requirements of the ISM Code, ISO 9001:2015, ISO 14001:2015, **ISO 45001:2018** and **ISO 50001:2018**, as relevant to the selected scope of their management system. Additionally, certification to the health, quality, environmental, and energy criteria requires a Stage I (adequacy to proceed) and Stage II (certification) audit.

Ships certified to the requirements of this Guide shall, as a prerequisite, be classed by ABS or another classification society holding an IACS QSCS certificate.

Certification to this Guide shall be administered in the same manner as ISM Code certification. Vessels shall normally be assessed in accordance with the usual audit frequency prescribed in **Part B of the ISM Code**.

This Guide is subject to review and revision. Updates may include, among other things, additional requirements, or clarification of existing requirements. Companies certified to the requirements of this Guide shall be required to comply with the changes within **one year** after their publication.

A Company that is assessed by ABS and found to meet the requirements specified in this Guide may be issued a corresponding certificate. Vessels operating under the Company’s management system that are assessed by ABS and found to meet the requirements specified in this Guide may be issued corresponding certificates, and where ABS classed, corresponding notations in the *ABS Record*. All certificates are subject to periodic and intermediate verifications conducted at each certified location. All certifications are non-transferable. Assessments are based upon a sampling process. The absence of **documented nonconformities** does not mean that none exist. Nothing contained herein or in any certificate, notation, or report issued in connection with a certificate and/or notation is intended to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator, insurer, or other entity of any duty to inspect or any other duty or warranty, express or implied, nor to create any interest, right, claim, or benefit in any insurer or other third party.

1.2.2 [s] Certification Process

Companies seeking certification to the requirements of this Guide shall fulfill the following responsibilities, some of which are more fully described in subsequent sections of the Guide:

- i) Document, implement, and maintain a marine management system in accordance with the pertinent requirements of this Guide.
- ii) Inform ABS in writing of major changes to management system elements (e.g., managerial organizational structure, location, change in types of vessels operated, upgrade/downgrade of process capability, control, or flow) so that the changes may be evaluated by ABS and appropriate action taken.
- iii) Provide ABS copies of pertinent management system **documented information** for review.
- iv) Allow ABS access to all certified locations and vessels during normal working hours in order to assess the marine management system to determine continuing compliance with the pertinent requirements of this Guide.
- v) Maintain **documented information** of all complaints received regarding the quality of services, occupational health and safety, environmental pollution, and the resolution thereof.
- vi) Notify ABS of port **or flag** state detentions of vessel(s) certified.
- vii) Inform ABS in writing when a Document of Compliance (DOC), issued by a flag Administration or a Recognized Organization (other than ABS), is withdrawn or invalidated by the issuing party affecting vessels certified to these requirements.

1.2.3 [s] Representations

Certification is a representation by ABS that at the time of assessment the Company and vessels, as pertinent, had established and implemented a management system in accordance with the requirements in this Guide for the specified certificates and notations. Certification is not a representation that the Company always acts in compliance with the management system or that the management system addresses all contingencies. Management performance remains the responsibility of the Company.

1.2.4 [s] Termination

The continuance of certification or any notation is conditional upon the Company's and vessels' continued compliance with the pertinent requirements of this Guide. ABS reserves the right to reconsider, withhold, suspend, or cancel the certification or notation for noncompliance with the requirements, refusing access for an assessment or verification, or nonpayment of fees which are due on account of certification and other services.

1.2.5 [s] Audit Guidelines

For assessments involving "q", "e", "En" or "h" certification, pre-assessments (stage I audits) are mandatory and the range and scope of the pre-assessment is determined by the designated Standard which requires that a minimum pre-assessment of the client's office. Pre-assessments are optional for "s" only assessments. The range and scope of optional pre-assessment is determined by the client.

1.3 [s] Definitions (1 April 2020)

The definitions listed below are taken, or adapted from the ISM Code, ISO 9000:2015, ISO 14001:2015, ISO 45001:2018 and ISO 50001:2018.

Administration – the Government of the State whose flag the ship is entitled to fly.

Anniversary Date – the day and month of each year that corresponds to the date of expiry of the relevant documented information or certificate.

Audit – systematic, independent, and documented process for obtaining "audit evidence" and evaluating it objectively to determine the extent to which "audit criteria" are fulfilled. (Note: an audit can be an internal or external audit) (ISO 9000:2015)

Auditor – person with the competence to conduct an audit. (ISO 9000:2015)

Boundaries – physical or site limits and/or organizational limits defined by the Company. (ISO 50001:2018)

Example: A process; a group of processes; a site; an entire Company; multiple sites under the control of a Company.

Certification – the decision by ABS that the Company's management system meets the applicable requirements of the ABS Guide.

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 owner of the ship and who on assuming such responsibility has agreed to take over all the duties and responsibilities imposed by the ISM Code. (ISM Code) Company = Organization (ISO 9000:2015)

Competence – ability to apply knowledge and skills to achieve intended results. (ISO 9000:2015)

Compliance obligations – Legal requirements that a Company has to comply with, and other requirements that a Company has to or chooses to comply with. Compliance obligations can arise from mandatory

requirements, such as applicable laws and regulations, or voluntary commitments, such as organizational and industry standards, contractual relationships, code of practice and agreements with community groups or non-governmental organizations. (ISO 14001:2015)

Conformity – fulfilment of a requirement. (ISO 9000:2015)

Continual improvement – recurring activity of enhancing the management system in order to achieve improvements in overall performance consistent with the Company's stated policies for health, safety, quality, environment, pollution prevention, and energy, as applicable. **Recurring activity to enhance performance.** (ISO 9000:2015)

Consultation – seeking views before making a decision (ISO 45001:2018)

Convention – means the International Convention for Safety of Life at Sea, 1974, as amended.

Correction – action to eliminate a detected non-conformity. (ISO 9000:2015)

Corrective Action – action to eliminate the cause(s) of a **nonconformity or an incident and to prevent recurrence.** (ISO 9000:2015)

Customer – Company or person that receives a product or service. **Example:** A charterer is considered a Customer.

Customer satisfaction – perception of the degree to which the Customer's needs and expectations have been fulfilled. (ISO 9000:2015)

DOC – Document of Compliance (ISM Code)

Documented information – information required to be controlled and maintained by the Company and the medium on which it is contained. (ISO 9000:2015)

Effectiveness – extent to which planned activities are realized and planned results achieved. (ISO 9000:2015)

Energy – electricity, fuels, steam, heat, compressed air, and other **similar** media. (ISO 50001:2018)

Energy management system scope, EnMS scope – set of activities, which a Company addresses through an energy management system. (ISO 50001:2018)

Energy baseline, EnB – quantitative reference(s) providing a basis for comparison of energy performance. (ISO 50001:2018)

Energy consumption – quantity of energy applied. (ISO 50001:2018)

Energy efficiency – ratio or other quantitative relationship between an output of performance, service, goods, **commodities** or energy, and an input of energy. (ISO 50001:2018)

Energy management team – person(s) **with responsibility and authority** for effective implementation of an energy management system and for delivering energy performance improvement (ISO 50001:2018)

Energy policy – statement by the Company of its overall intention(s), direction(s), and commitment(s) related to its energy performance, as formally expressed by top management (ISO 50001:2018)

Energy performance indicator, EnPI – measure or unit of energy performance, as defined by the Company (ISO 50001:2018)

Energy performance indicator value, EnPI value – quantification of the *EnPI* at a point in or over a specified period of time. (ISO 50001:2018)

Energy performance improvement – improvement in measurable results of energy efficiency, or energy consumption related to energy use, compared to the energy baseline (ISO 50001:2018)

Energy review – analysis of energy efficiency, energy use and energy consumption based on data and other information, leading to identification of SEUs and opportunities for energy performance improvement (ISO 50001:2018)

Energy Target – quantifiable objective of energy performance improvement (ISO 50001:2018)

Energy Use – Application of energy. (ISO 50001:2018)

Environment – Surroundings in which a Company and its ships operate, including air, water, land, natural resources, flora, fauna, humans, and their interrelation. (ISO14001:2015)

Environmental aspect – element of a Company's activities or services that interacts or can interact with the environment. (ISO 14001:2015)

Note: A Company determines its environmental aspects and associated environmental impacts, and determines those that are significant. A significant environmental aspect is one that has or can have one or more significant environmental impact(s). (ISO 14001:2015)

Environmental impact – any change to the environment, whether adverse or beneficial, wholly or partially resulting from a Company's environmental aspects. (ISO 14001:2015)

External Provider (sometimes called a "supplier" or "contractor") – means external supplier to the company that provides a service or performs delegated functions.

Hazard – source with a potential to cause injury and ill health (ISO 45001:2018)

Infrastructure – system of facilities, equipment, and services needed for the operation of the Company. (ISO 9000:2015)

Incident – occurrence arising out of, or in the course of, work that could or does result in injury and ill health (ISO 45001:2018)

Injury and ill health – adverse effect on the physical, mental or cognitive condition of a person (ISO 45001:2018)

Interested Parties – (preferred term), **Stakeholder (admitted term)** – person or organization that can affect, or be affected by, or perceive itself to be affected by a decision or activity. Example – Customers, owners, employees, external providers, bankers, regulators, unions, partners or society that can include competitors or opposing pressure groups. (ISO 9000:2015)

International Safety Management (ISM) Code – means the International Management Code for the Safe Operation of Ships and for Pollution Prevention as adopted by the Assembly, as may be amended by the Organization. (ISM Code)

Major non-conformity – means the identifiable deviation that poses a serious threat to the safety of personnel or the ship or a serious risk to the environment that requires immediate corrective action or the lack of effective and systematic implementation of the requirement of the Code. (ISM Code)

Management system – set of interrelated or interacting elements of a Company to establish policies and objectives and processes to achieve those objectives (ISO 9000:2015)

Monitoring – determining the status of a system, a process, a service or an activity. (ISO 9000:2015)

Non-conformity – means an observed situation where objective evidence indicates the non-fulfillment of a specified requirement. (ISM Code)

Normalization – modification of data to account for changes to enable comparison of energy performance under equivalent conditions. (ISO 50001:2018)

Notation – notation in the ABS *Record* upon certification to recognize that the ABS classed vessel meets the applicable requirements of this Guide for:

- Safety certification or “S”;
- Safety and Quality certification or “SQ”;
- Safety and Environmental certification or “SE”;
- Safety and Energy certification or “SEn”;
- Safety and Health certification or “HS”;
- Safety, Quality and Environmental certification or “SQE”;
- Safety, Quality and Energy certification or “SQEn”;
- Safety, Environmental and Energy certification or “SEEn”;
- Safety, Health, and Quality certification or “HSQ”;
- Safety, Health, and Environmental certification or “HSE”;
- Safety, Health and Energy certification or “HSEn”;
- Safety, Quality, Environmental and Energy certification or “SQEEn”;
- Safety, Quality, Health and Energy certification or “HSQEn”;
- Safety, Health, Environmental and Energy certification or “HSEEn”;
- Safety, Health, Quality, and Environmental certification or “HSQE”, and
- Safety, Health, Quality, Environmental and Energy certification or “HSQEEn”

Objective – a result to be achieved, set by the Company **consistent with its policies**.

Objective evidence – means quantitative or qualitative information, **documented information**, or statements of fact pertaining to safety or to the existence and implementation of a management system element, which is based on observation, measurement, or testing that can be verified. (ISM Code)

Observation – means a statement of fact made during a management audit and substantiated by objective evidence. (ISM Code)

Occupational health and safety risk, OH&S risk – combination of the likelihood of occurrence of a work-related hazardous event(s) or exposure(s) and the severity of injury and ill health that can be caused by the event(s) or exposure(s) (ISO 45001:2018)

Occupational health and safety opportunity, OH&S opportunity – circumstance or set of circumstances that can lead to improvement of OH&S performance (ISO 45001:2018)

Organization - person or group of people that has its own function with responsibilities, authorities and relationships to achieve its objectives (ISO 9000:2015)

Outsource (verb) – make an arrangement where an external organization performs part of an Company's function or process (ISO 9000:2015)

Participation – involvement in decision-making (ISO 45001:2018)

Performance – measurable results. (ISO 9000:2015)

Policy – overall intentions and direction of a Company related to its performance as formally expressed by the top management. (ISO 9000:2015)

Prevention of pollution – use of processes, practices, techniques, materials, products, services, or energy to avoid, reduce, or control (separately or in combination) the creation, emission, or discharge of any type of pollutant or waste in order to reduce adverse environmental impacts. (ISO 14001:2018)

Procedure – specified way to carry out an activity or a process. (ISO 9000:2015)

Process – set of interrelated or interacting activities that use inputs to deliver an intended result. (ISO 9000:2015)

Relevant variable - quantifiable factor that significantly impacts *energy performance* and routinely changes. (ISO 50001:2018)

Requirement – a need or expectation **that is** stated, generally implied or obligatory. (ISO 9000:2015)

Risk – effect of uncertainty. (ISO 9000:2015)

Significant energy use, SEU – energy use accounting for substantial energy consumption and/or offering considerable potential for energy performance improvement. (ISO 50001:2018)

SMC – Safety Management Certificate. (ISM Code)

Static factor – identified factor that significantly impacts *energy performance* and does not routinely change. (ISO 50001:2018 3.4.8)

System – set of interrelated or interacting elements. (ISO 9000:2015)

Top management – person or group of people who directs **and** controls an Organization at the highest level. (ISO 9000:2015)

Work environment – set of conditions **under which work is performed**. (ISO 9000:2015)

Worker – person performing work or work-related activities that are under the control of the Company. (ISO 45001:2018)

Workplace – place under the control of the Company where a person needs to be or to go for work purposes. (ISO 45001:2018)

SECTION 2

Context, Leadership and Policy (1 April 2020)

2 Context, Leadership and Policy

2.1 Context of Company

2.1.1 Understanding the Company and its context

2.1.1.1 [s] The Company shall determine external and internal issues that are relevant to its purpose and its strategic direction and that affect its ability to achieve the intended result(s) of its management system (ISO 9001:2015 4.1, ISO 14001:2015 4.1, ISO 45001:2018 4.1, ISO 50001:2018 4.1).

- i)* [e] such issues shall include environmental conditions being affected by or capable of affecting the Company.

2.1.1.2 [s] The Company shall monitor and review information about these external and internal issues .

2.1.2 Understanding the needs and expectations of interested parties

2.1.2.1 [s] The Company shall determine (ISO 9001:2015 4.2, ISO 14001:2015 4.2, ISO 45001:2018 4.2 ,ISO 50001:2018 4.2):

- i)* the interested parties, in addition to workers, that are relevant to the management system
- ii)* the requirements of these interested parties that are relevant to the management system
- iii)* which of these needs and expectations become its compliance obligations
- iv)* which of the identified needs and expectations the Company addresses through its management system

2.1.2.2 [s] The Company shall monitor and review information about these interested parties and their relevant requirements at defined intervals.

2.1.3 Determination of boundaries and scope of the management system

2.1.3.1 [s] The Company shall determine the boundaries and applicability of the management system to establish its scope (ISO 9001:2015 4.3, ISO 14001:2015 4.3, ISO 45001:2018 4.3 ,ISO 50001:2018 4.3).

2.1.3.2 [s] When determining this scope, the Company shall:

- i)* [s] consider the external and internal issues referred to in 2.1.1;
- ii)* [s] consider the requirements of relevant interested parties referred to in 2.1.2;
- iii)* [q][e] consider its activities, and services

- iv) [e] consider compliance obligations required by the needs and expectations of interested parties
- v) [e] consider its organizational units, functions and physical boundaries
- vi) [e] consider its authority and ability to exercise control and influence
- vii) [h] take into account the planned or performed work-related activities that can impact the Company's performance

2.1.3.3 [s] Once the scope is defined, all activities and services of the Company within that scope need to be included in the management system. The Company shall provide justification for any requirement of this Guide that the Company determines is not applicable to its management system.

2.1.3.4 [s] The scope and boundaries of the Company's management system shall be maintained as documented information.

2.1.3.5 [e] The scope of the Company's management system shall be available to interested parties.

2.1.3.6 [En] The Company shall ensure that it has the authority to control its energy efficiency, energy use and energy consumption with the scope and boundaries. The Company shall not exclude an energy type within the scope and boundaries.

2.2 Leadership and Commitment

2.2.1 General

2.2.1.1 Top management shall demonstrate leadership and commitment with respect to the management system by (ISO 9001:2015 5.1, ISO 14001:2015 5.1, ISO 45001:2018 5.1, ISO 50001:2018 5.1):

- i) [s] taking accountability for the effectiveness of the management system;
- ii) [s] ensuring that the policy, objectives and targets are established for the management system and are compatible with the context and strategic direction of the Company;
- iii) [s] ensuring the integration of the management system requirements into the Company's business processes;
- iv) [s] ensuring that the resources needed for the management system are available;
- v) [s] communicating the importance of effective management and of conforming to the management system requirements;
- vi) [s] ensuring that the management system achieves its intended results and outcomes;
- vii) [s] engaging, directing and supporting persons to contribute to the effectiveness of the management system;
- viii) [s] promoting continual improvement;
- ix) [s] supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility;
- x) [q] promoting the use of process approach and risk-based thinking;
- xi) [h] taking overall responsibility and accountability for the prevention of work-related injury and ill health, as well as the provision of safe and healthy workplaces and activities;
- xii) [h] developing, leading and promoting a culture in the Company that supports the intended outcomes of the OH&S management system;

- xiii)* [h] protecting workers from reprisals when reporting incidents, hazards, risks and opportunities;
- xiv)* [h] ensuring the Company establishes and implements a process(es) for consultation and participation of workers;
- xv)* [h] supporting the establishment and functioning of health and safety committees;
- xvi)* [En] ensuring that EnMS scope and boundaries are established;
- xvii)* [En] ensuring that EnMS action plans are approved and implemented;
- xviii)* [En] ensuring the formation of an energy management team;
- xix)* [En] ensuring that the EnPI(s) appropriately represent(s) energy performance;
- xx)* [En] ensuring that processes are established and implemented to identify and address changes affecting the EnMS and energy performance within the scope and boundary of the EnMS.

2.2.2 Customer Focus

2.2.2.1 [q] Top management shall demonstrate leadership and commitment with respect to customer focus by ensuring that the:

- i)* customer, applicable statutory and regulatory requirements are determined, understood and consistently met;
- ii)* risk and opportunities that can affect conformity of services and the ability to enhance customer satisfaction are determined and addressed;
- iii)* focus on enhancing customer satisfaction is maintained.

2.3 Policy

2.3.1 General

2.3.1.1 [s] The Company's top management shall establish pertinent policy(ies) for Occupational Health, Safety, Quality, Energy and Environmental Protection in accordance with and appropriate to the management system ISM 1.4.1).

2.3.1.2 [s] The Company's top management shall require that the policy is implemented and understood at all levels of the Company, both ship-based and shore-based (ISM 2.2).

2.3.1.3 [s] The Company's policy:

- i)* shall be maintained as documented information;
- ii)* shall be communicated within the Company;
- iii)* shall be available to interested parties;
- iv)* shall be appropriate to the purpose and context of the Company and support its strategic direction;
- v)* shall include a commitment to satisfy applicable requirements;
- vi)* shall describe how the objectives of the management system will be achieved. These objectives, as a minimum, shall be to promote safety at sea, prevention of human injury or loss of life, improved energy performance and avoidance of damage to the environment, in particular to the marine environment and to property (ISM 1.2.1, 2.1),
- vii)* shall be periodically reviewed and updated as necessary.

2.3.2 Occupational Health, Safety, Quality, Environmental and Energy Policy

2.3.2.1 [e][h][En] The policy shall state the Company's commitment to achieving health, safety, environmental and energy performance improvement and shall describe how the objectives of the management system will be achieved as appropriate (ISM 1.4.1, ISO 9001:2015 5.2, ISO 14001:2015 5.2, ISO 45001:2018 5.2, ISO 50001:2018 5.2).

2.3.2.2 Top management shall establish, implement and maintain the Company's policy(ies) and require that, within the defined scope of its management system, it:

- i)* **[q]** provides a framework for setting quality objectives;
- ii)* **[e]** includes a commitment to the protection of the environment, including prevention of pollution and other specific commitments(s) relevant to the context of the Company;
- iii)* **[h]** includes a commitment to provide safe and healthy working conditions for the prevention of work-related injury and ill health, and to eliminate hazards and reduce OH&S risks;
- iv)* **[h]** includes a commitment to consultation and participation of workers, and where they exist, workers' representatives;
- v)* **[En]** includes a commitment to ensure the availability of information and necessary resources to achieve EnMS objectives and targets. (ISO 50001:2018 5.2.c)
- vi)* **[En]** supports the procurement of energy efficient products and services that impact energy performance; (ISO 50001:2018 5.2.f)
- vii)* **[En]** supports design activities that consider energy performance improvement. (ISO 50001:2018 5.2.g)
- viii)* **[e][h][En]** includes a commitment to continual improvement of the management system to enhance its performance;
- ix)* **[e][h][En]** includes the nature, scale and environmental impacts of its activities and services, and to the specific nature of its OH&S risks and OH&S opportunities, as appropriate;
- x)* **[e][h][En]** includes a commitment to fulfil its compliance obligations, applicable legal requirements and other requirements related to energy efficiency, energy use and energy consumption, as appropriate;
- xi)* **[e][h][En]** provides a framework for setting and reviewing objectives and targets, as appropriate.

SECTION 3 Planning

3 Planning (1 April 2020)

3.1 General (1 April 2020)

3.1.1 Actions to Address Risk and Opportunities

[s] When planning for the management system, the Company shall consider the issues referred to in 2.1 (Context of the Company) and review the company's activities and processes that can affect the management system performance, determine risks and opportunities that need to be addressed to: (ISO 9001:2015 6.1.1, ISO 14001:2015 6.1.1, ISO 45001:2018 6.1.1, ISO 50001:2018 6.1.1)

- i) give assurance that the management system can achieve its intended outcomes/result(s);
- ii) enhance desirable effects;
- iii) prevent, or reduce, undesired effects;
- iv) achieve continual improvement of the management system.

[En] Planning shall be consistent with the energy policy and shall lead to actions that result in continual improvement in energy performance. (ISO 50001:2018 6.1.1)

3.1.2 Plan Action

The Company shall plan: (ISO 9001:2015, 6.1.2)

- i) [s] actions to address these risks and opportunities; (ISO 9001:2015 6.1.2, ISO 14001:2015 6.1.4, ISO 45001:2018 6.1.4, ISO 50001:2018 6.1.2)
- ii) [e][h] actions to address legal requirements and other requirements;
- iii) [e] to take actions to address its;
 - a) significant environmental aspects;
 - b) compliance obligations;
- iv) [e] actions to prepare for and respond to emergency situations;
- v) [s] how to;
 - a) integrate and implement the actions into its management system processes or other processes;
 - b) evaluate the effectiveness of these actions.

[s] The output of this planning shall be suitable for the Company's operations. (ISO 9001:2015 8.1)

[q] Actions taken to address risks and opportunities shall be proportionate to the potential impact on the conformity of shipboard and shore-based operations. (ISO 9001:2015 6.1.2)

[e][h] When planning these actions, the Company shall consider its technological options and its financial, operational and business requirements. (ISO 14001:2015 6.1.4, ISO 45001:2018, 6.1.4)

[h] When planning the actions, the Company shall take into account the hierarchy of controls and outputs from the OH&S management system when planning to take action.

3.2 Environmental Aspects

3.2.1 [e] The Company shall establish, implement, and maintain procedure(s) to identify the environmental aspects of its shipboard and shore-based operations within the scope of the environmental management system that it can control and those it can influence, and their associated environmental aspects considering a life cycle perspective.

3.2.2 [e] *When determining environmental aspects, the Company shall take into account: (ISO 14001:2015 6.1.2)*

- i) change, including planned or new development, and new or modified activities and services;
- ii) abnormal conditions and reasonably foreseeable emergency situations.

3.2.3 [e] The Company shall determine which environmental aspects have or can have a significant environmental impact, by using established criteria, and communicate its significant environmental aspects among the various levels and functions of the Company as appropriate. The Company shall maintain documented information of its; (ISO 14001:2015 6.1.2)

- i) environmental aspects and associated environmental impacts;
- ii) criteria used to determine its significant environmental aspects;
- iii) significant environmental aspects.

3.3 Energy Review, Performance Indicators and Baseline (1 April 2020)

3.3.1 Energy Review

[En] The Company shall develop and conduct an energy review. To develop the energy review, the Company shall: (ISO 50001:2018 6.3)

- i) analyze energy use and consumption based on measurement and other data, i.e.:
 - a) identify current types of energy;
 - b) evaluate past and current energy use(s) and consumption;
- ii) based on the analysis, identify SEUs (Significant Energy Use);
- iii) for each SEU:
 - a) determine relevant variables;
 - b) determine current energy performance;
 - c) identify the person(s) doing work under its control that influence or affect the SEUs.
- iv) determine and prioritize opportunities for improving energy performance;
- v) estimate future energy use(s) and energy consumption.

The energy review shall be updated at defined intervals, as well as in response to major changes in facilities, equipment, systems or energy-using processes.

The Company shall maintain as documented information (see 4.9) the methods and criteria used to develop the energy review, and shall retain documented information of its results.

3.3.2 Energy Performance Indicators

[En] The Company shall determine EnPIs that: (ISO 50001:2018 6.4)

- i) are appropriate for measuring and monitoring its energy performance;
- ii) enable the Company to demonstrate energy performance improvement.

The method for determining and updating the EnPI(s) shall be maintained as documented information (see 4.9). Where the Company has data indicating that relevant variables significantly affect energy performance, the Company shall consider such data to establish appropriate EnPI(s).

EnPI value(s) shall be reviewed and compared to their respective EnB(s), as appropriate. The Company shall retain documented information (see 4.9) of EnPI value(s).

3.3.3 Energy Baseline

[En] The Company shall establish (an) EnB(s) using the information from the energy review(s) (see 3.3.1), taking into account a suitable period of time. (ISO 50001:2018 6.5)

Where the Company has data indicating that relevant variables significantly affect energy performance, the Company shall carry out normalization of the EnPI value(s) and corresponding EnB(s).

Note: Depending on the nature of the activities, normalization can be a simple adjustment, or a more complex procedure.

EnB(s) shall be revised in the case of one or more of the following:

- i) EnPI(s) no longer reflect the Company's energy performance;
- ii) there have been major changes to the static factors;
- iii) according to a pre-determined method.

The Company shall retain information of EnB(s), relevant variable data and modifications to EnB(s) as documented information (see 4.9).

3.3.4 Planning for Collection of Energy Data

The Company shall ensure that key characteristics of its operations affecting energy performance are identified, measured, monitored and analysed at planned intervals (see 5.1). The Company shall define and implement an energy data collection plan appropriate to its size, its complexity, its resources and its measurement and monitoring equipment. The plan shall specify the data necessary to monitor the key characteristics and state how and at what frequency the data shall be collected and retained. (ISO 50001:2018 6.6)

Data to be collected (or acquired by measurement as applicable) and retained documented information (see 4.9) shall include:

- i) the relevant variables for SEUs;
- ii) energy consumption related to SEUs and to the Company;
- iii) operational criteria related to SEUs;
- iv) static factors, if applicable;
- v) data specified in action plans.

The energy data collection plan shall be reviewed at defined intervals and updated as appropriate.

The Company shall ensure that the equipment used for measurement of key characteristics provides data which are accurate and repeatable. The Company shall retain documented information (see 4.9) on measurement, monitoring and other means of establishing accuracy and repeatability.

3.4 Hazard Identification, Risk Assessment, Actions to address Risk and Opportunities (1 April 2020)

3.4.1 Risks and Opportunities (1 April 2020)

[s] The Company shall establish, implement and maintain documented procedure(s) to identify and address risks and opportunities within the scope of its managements system.

[h] When determining the risks and opportunities for the OH&S management system and its intended outcomes that need to be addressed, the Company shall take into account: (ISO 45001:2018 6.1.1)

- i) hazards (see 3.4.3);
- ii) OH&S risks and other risks (see 3.4.4);
- iii) OH&S opportunities and other opportunities (see 3.4.5);
- iv) legal requirements and other requirements (see 3.5).

[h] The Company, in its planning process(es), shall determine and assess the risks and opportunities that are relevant to the intended outcomes of the OH&S management system associated with changes in the Company, its processes or the OH&S management system. In the case of planned changes, permanent or temporary, this assessment shall be undertaken before the change is implemented (see 3.8).

[e][h] The Company shall maintain documented information of its: (ISO 14001:2015 6.1.1, ISO 45001:2018 6.1.1)

- i) risks and opportunities that need to be addressed;
- ii) process(es) and actions needed to determine and address its risks and opportunities (see 3.4.3-3.4.5) to the extent necessary to have confidence they are carried out as planned.

3.4.2 Potential Emergency Situation (1 April 2020)

[s] Within the scope of the management system the Company shall determine potential emergency situations, including those can have an environmental impact. (ISO 14001:2015 6.1.1)

3.4.3 [h] Hazard Identification (1 April 2020)

The Company shall establish, implement and maintain a process(es) for hazard identification that is ongoing and proactive. The process(es) shall take into account, but not be limited to: (ISO 45001:2018, 6.1.2.1)

- i) how work is organized, social factors (including workload, work hours, victimization, harassment and bullying), leadership and the culture in the Company;
- ii) routine and non-routine activities and situations, including hazards arising from:
 - a) infrastructure, equipment, materials, substances and the physical conditions of the workplace;
 - b) service design, research, development, testing, production, assembly, construction, service delivery, maintenance and disposal;
 - c) human factors;
 - d) how the work is performed;

- iii) past relevant incidents, internal or external to the Company, including emergencies, and their causes;
- iv) potential emergency situations;
- v) people, including consideration of:
 - a) those with access to the workplace and their activities, including emergencies, and their causes;
 - b) those in the vicinity of the workplace who can be affected by the activities of the Company;
 - c) workers at a location not under the direct control of the Company;
- vi) other issues, including consideration of:
 - a) the design of work areas, processes, installations, machinery/equipment, operating procedures and work Company, including their adaptation to the needs and capabilities of the workers involved;
 - b) situations occurring in the vicinity of the workplace caused by work-related activities under the control of the Company;
 - c) situations not controlled by the Company and occurring in the vicinity of the workplace that can cause injury and ill health to persons in the workplace;
- vii) actual or proposed changes in Company, operations, processes, activities and the OH&S management system (see 3.8 & 4.20);
- viii) changes in knowledge of, and information about, hazards.

3.4.4 Assessment of OH&S Risks (1 April 2020)

[h] The Company shall establish, implement and maintain a process(es) to: (ISO 45001:2018, 6.1.2.2)

- i) assess OH&S risks from the identified hazards, while taking into account the effectiveness of existing controls;
- ii) determine and assess the other risks related to the establishment, implementation, operation and maintenance of the OH&S management system.

The Company's methodology(ies) and criteria for the assessment of OH&S risks shall be defined with respect to their scope, nature and timing to ensure they are proactive rather than reactive and are used in a systematic way. Documented information shall be maintained and retained on the methodology(ies) and criteria.

3.4.5 Assessment of OH&S opportunities (1 April 2020)

[h] The Company shall establish, implement and maintain a process(es) to assess:

- i) OH&S opportunities to enhance OH&S performance, while taking into account planned changes to the Company, its policies, its processes or its activities and: (ISO 45001:2018, 6.1.2.3)
 - a) opportunities to adapt work, work organization and work environment to workers;
 - b) opportunities to eliminate hazards and reduce OH&S risks;
- ii) other opportunities for improving the OH&S management system.

Note: OH&S risks and OH&S opportunities can result in other risks and other opportunities for the Company.

3.5 Compliance Obligations (1 April 2020)

3.5.1 The Company should establish, implement, and maintain a documented procedure: (ISM 11)

- i) **[s]** to identify mandatory rules and regulations applicable to both ship and shore-based operations;

- ii) [s] to identify applicable codes, guidelines, and standards recommended by the IMO, Administrations, classification societies, and maritime industry organizations;
- iii) [s] to maintain adequate knowledge and understanding how the codes, rules and guidelines, standards recommended by the IMO, Administration, Classification societies, Maritime industry, etc., are applicable to the ship management Company and to the ships; (ISM 1.2.3)
- iv) [s] for periodically evaluating compliance at least once every 12 months with its compliance obligations;
- v) [q][e][h][En] for determining and accessing the legal and other requirements that are applicable to its services, OH&S hazards and risks, Environmental aspects, and Energy use, consumption and efficiency, as appropriate; ISO 9001:2015 8.2.2, ISO 14001:2015 6.1.3, ISO 45001:2018 6.1.3, ISO 50001 4.2)
- vi) [e] to determine how these compliance obligations apply to the Company and take them into account when continually improving environmental management system. (ISO 14001:2015 6.1.3)

3.5.2 [e][h] The Company shall maintain and retain documented information on its legal requirements and other requirements, its compliance obligations and shall ensure that it is updated to reflect any changes. (ISO 45001:2018, 6.1.3)

3.6 Objectives and Targets (1 April 2020)

3.6.1 General

[s] The Company shall establish, implement, and maintain documented objectives at each relevant function and level within the shore-based and shipboard organization (See 4.9). Responsibility and time frame for achieving these objectives shall also be identified and documented. (ISO 9001:2015 6.2.1, ISO 14001:2015 6.2.1, ISO 45001:2018 6.2.1, ISO 50001:2018 6.2.2)

[s] Objectives:

- i) should provide for safe practices in ship operation and a safe working environment; (ISM 1.2.2.1)
- ii) should assess all identified risks to its ships, personnel and the environment and establish appropriate safeguards; (ISM 1.2.2.2)
- iii) should continuously improve safety management skills of personnel ashore and aboard ships, including preparing for emergencies related both to safety and environmental protection; (ISM 1.2.2.3)
- iv) shall be consistent with the Company's policies;
- v) shall be measurable;
- vi) shall be monitored;
- vii) shall be communicated;
- viii) shall be updated as appropriate.

3.6.2 Health, Safety, Quality, Environmental and Energy Objectives and Targets

- i) [e] when developing environmental objectives, the Company shall take into account significant environmental aspects and associated compliance obligations, and consider its risks and opportunities; (ISO 14001:2015 6.2.1)
- ii) [q] objectives shall be relevant to conformity of services, and to enhancement of customer satisfaction; (ISO 9001:2015 6.2.1)
- iii) [s] objectives shall: (ISO 9001:2015 6.2.1, ISO 14001:2015 6.2.1, ISO 45001:2018 6.2.1, ISO 50001:2018 6.2.2)

- a) take into account the results of the assessment of risks and opportunities;
- b) be measurable (if practicable) or capable of performance evaluation;
- c) [h] take in account the result of consultation with workers and, where they exist, workers' representatives; (ISO 45001:2018 6.2.1)
- iv) [En] the Company shall establish energy targets; (ISO 50001:2018 6.2.2 (e))
- v) [En] the objectives and targets shall be consistent with the policy(ies), as appropriate. Targets shall be consistent with the objectives;
- vi) [En] when establishing and reviewing its management system objectives and targets, the Company shall consider SEU's;
- vii) [En] objectives and Energy targets shall take into account opportunities to improve energy performance.

3.7 Planning to Achieve Objectives (1 April 2020)

3.7.1 General

[s] When planning how to achieve its objectives, the Company shall establish and maintain action plans that include: (ISO 9001:2015 6.2.2, ISO 14001:2015 6.2.2, ISO 45001 6.2.2 & ISO 50001:2018 6.2.3)

- i) what will be done;
- ii) what resources will be required;
- iii) who will be responsible;
- iv) when it will be completed;
- v) how the results will be evaluated;
- vi) [e] indicators for monitoring progress toward achievement of its objectives.(ISO 14001:2015 6.2.2(e))

[s] The Company shall consider how the actions to achieve its objectives and energy targets can be integrated into the Company's business processes.

[s] The Company shall retain documented information on action plans.

[s] These processes shall be managed by the Company in accordance with the requirements of this Guide.

3.7.2 Planning to Achieve Energy Targets

[En] When planning how to achieve its energy targets, the Company shall establish and maintain action plans that include how the results will be evaluated including method(s) used to verify energy performance improvement. (ISO 50001:2018 6.2.3)

3.8 Planning for Change (1 April 2020)

3.8.1 [s] When the Company determines the need for changes to the management system, the changes shall be carried out in a planned manner. The Company shall: (ISO 9001:2015 6.3)

- i) consider the purpose of changes and their potential consequences;
- ii) consider the integrity of the management system;
- iii) consider the availability of the resources;
- iv) consider the allocation and reallocation of responsibilities and authorities;

- v) retain documented information describing the results of the review of changes, the person(s) authorizing the change, and any necessary actions arising from the review.

3.8.2 [q] When addressing changing needs and trends, the Company shall consider its current knowledge and determine how to acquire or access any necessary additional knowledge and required updates. (ISO 9001:2015 7.1.6)

Notes:

The Company's knowledge can be based on:

- i internal sources (e.g., intellectual property; knowledge gained from experience; lessons learned from failures and successful projects; capturing and sharing undocumented knowledge and experience; the results of improvements in processes and services);
- ii external sources (e.g., standards; academia; conferences; gathering knowledge from customers or external providers).

3.8.3 [h] The Company shall establish processes for the implementation and control of planned temporary and permanent changes that impact OH&S performance, including; (ISO 45001:2018 8.1.3)

- i) new services and processes, or changes to existing services and processes, including:
 - workplace locations and surroundings;
 - work organization;
 - working conditions;
 - equipment;
 - workforce;
- ii) changes to legal requirements and other requirements;
- iii) changes in knowledge or information about hazards and OH&S risks;
- iv) developments in knowledge and technology.

3.9 Customer Requirements (1 April 2020)

3.9.1 [q] Customer Communication

The Company shall determine and implement effective arrangements for communicating with customers. Communication with customers shall include: (ISO 9001:2015 : 8.2.1)

- i) providing information relating to services;
- ii) handling enquiries, contracts or orders , including changes;
- iii) obtain customer feedback relating to services, including customer complaints;
- iv) handling or controlling customer property;
- v) establishing specific requirements for contingency actions, when relevant.

3.9.2 [q] Determining the Requirements Related to Management of Ships and other Services

The Company shall confirm that requirements for services are determined and met with the aim of enhancing customer satisfaction. When determining these requirements, the Company shall confirm that: (ISO 9001:2015 8.2.2)

- i) the requirements for the services are defined including any statutory and regulatory requirements, and those considered necessary by the Company;
- ii) the Company can meet the claims for the services it offers;
- iii) breakdowns, accidents, delays, and port state interventions/detentions are tracked.

3.9.3 [q] Review of the Requirements Related to Ship Management Services and other Services

3.9.3.1 The Company shall confirm that it has the ability to meet the requirements for services to be offered to customers. Prior to committing to provide services to the client, the Company shall review the requirements related to the services to be delivered to confirm that: (ISO 9001:2015 8.2.3)

- i) the requirements specified by the customer, including delivery and post-delivery of its services, are adequately defined and documented;
- ii) requirements not stated by the customer but considered necessary for delivery of services are addressed;
- iii) contract or order requirements differing from those previously expressed are resolved;
- iv) requirements specified by the Company are addressed, and;
- v) statutory and regulatory requirements applicable to the services are identified;
- vi) when the customer does not provide a documented statement of their requirements, the customer's requirement shall be confirmed before acceptance.

3.9.3.2 The Company shall document the results of the review and any new requirements applicable to the services it offers (See 4.9).

3.9.4 [q] Changes to Requirements Related to Ship Management Services and other Services

The Company shall ensure that relevant documented information is amended, and that relevant persons are made aware of the changed requirements, when the requirements for ship management services, and other services are changed. (ISO 9001:2015 8.2.4)

3.10 Management System (1 April 2020)

3.10.1. [s] The Company shall establish, implement, maintain and continually improve a management system including the processes needed and their interactions in accordance with the requirements of this Guide. (ISO 9001:2015 4.4.1; ISO 14001:2015 4.4; ISO 45001:2018 4.4; ISO 50001:2018 4.4)

3.10.2 [q] The Company shall determine the process(es) needed for the management system and their application throughout the Company and shall: (ISO 9001:2015 4.4.1)

- i) determine the inputs required and the outputs expected from these processes;
- ii) determine the sequence and interaction of these processes;
- iii) determine and apply the criteria and methods (including monitoring, measurements and related performance indicators) needed to ensure the effective operation and control of these processes;
- iv) determine the resources needed for these processes and ensure their availability;
- v) assign the responsibilities and authorities for these processes;
- vi) address the risks and opportunities as determined in accordance with the requirements identified at the planning stage;
- vii) evaluate these processes and implement any changes needed to ensure that these processes achieve their intended results;
- viii) improve the processes and the management system.

3.10.3 The management system documented information:

- i) [s] should ensure compliance with mandatory rules and regulations; (ISM Code 1.2.3)

- ii) [s] should ensure applicable codes, guidelines and standards recommended by the Organization, Administrations, classification societies, maritime industry organizations, legal and other requirements, are taken into account; (ISM Code 1.2.3)
- iii) [s] should include instructions and procedures to ensure safe operation of ships and protection of the environment in compliance with relevant international and flag State legislation; (ISM Code 1.4.2)
- iv) [s] shall define and document the scope of the management system including details and justification for any exclusions;
- v) [s] shall include pertinent Company policies, objectives and targets;
- vi) [s] shall define the responsibility, authority, and interrelation of the personnel who manage, perform, and verify work relating to and affecting safety operations, pollution prevention, energy, and quality, as appropriate; (ISM 3.2)
- vii) [s] should include defined levels of responsibility and authority and lines of communication between, and amongst, shore and shipboard personnel; (ISM Code 1.4.3)
- viii) [s] should include procedures for reporting hazardous situations, accidents and nonconformities, internal audits and management reviews; (ISM Code 1.4.4 & 1.4.6)
- ix) [s] shall describe the core elements and outline the structure of the Company's management system and interaction of its elements, and reference to related documented information;
- x) [s] shall include documented information determined by the Company as being necessary for the effectiveness of the management system; (ISO 9001:2015 7.5.1, ISO 14001:2015 7.5.1, ISO 45001:2018 7.5.1, ISO 50001:2018 7.5.1)

Notes:

The extent of documented information for a management system can differ from one Company to another due to:

- its size and type of activities, processes and services;
 - the need to demonstrate fulfilment of its compliance obligations as appropriate;
 - the complexity of processes and their interactions;
 - the competence of persons doing work under the Company's control.
- xi) [s] shall include the procedures and documented information required by this Guide to demonstrate conformity to requirements and the effective planning, operation, and control of the management system processes (See 4.9);
 - xii) [s] should be kept in the form that the Company considers most effective; (ISM 11.3)
 - xiii) [En] shall include the processes needed and their interactions, and continually improve energy performance, in accordance with the requirements of this Guide. (ISO 50001:2018 4.4)

SECTION 4 Implementation and Operation

4 Implementation and Operation

4.1 Resources, Roles, Responsibility, Accountability, and Authority (1 April 2020)

4.1.1 [s] The Company's top management shall determine and provide the resources essential to establish, implement, maintain, and continually improve the management system. Resources include human resources and specialized skills, organizational infrastructure, technology, and financial resources **and** personnel suitably trained to perform verification activities including internal management system audits. (ISO 9001:2015 7.1.1 & 7.1.2, ISO 14001:2015 7.1, ISO 45001:2018 7.1, ISO 50001:2018 7.1)

The Company shall provide adequate resources and shore-based support to enable the designated person or persons to carry out their functions. (ISM 3.3)

The Company shall consider: (ISO 9001:2015 7.1.1)

- i)** the capabilities of, and constraints on, existing internal resources;
- ii)** what needs to be obtained from external providers.

4.1.2 Top management shall ensure that the responsibilities and authorities for relevant roles within the management system are assigned and communicated at all levels within the Company for: (ISO 9001:2015 5.3, ISO 14001:2015 5.3, ISO 45001:2018 5.3, ISO 50001:2018 5.3)

- i)** [s] ensuring that the management system is established, implemented, maintained and continually improved;
- ii)** [s] ensuring that the management system conforms to the requirements of this Guide;
- iii)** [q] ensuring that the processes are delivering their intended outputs;
- iv)** [s] reporting on the performance of the management system and on opportunities for improvement to top management;
- v)** [q] ensuring the promotion of customer focus throughout the Company;
- vi)** [q] ensuring that integrity of the quality management system is maintained when changes to the quality management system are planned and implemented;
- vii)** [En] implementing action plans to continually improve energy performance;
- viii)** [En] establishing criteria and methods needed to ensure that the operation and control of the EnMS are effective.

4.1.3 [h] Workers at each level of the Company shall assume responsibility for those aspects of the OH&S management system over which they have control. (ISO 45001:2018 5.3)

4.2 Infrastructure (1 April 2020)

4.2.1 [q] The Company shall determine, provide, and maintain the infrastructure necessary for the operation of its processes and to achieve conformity of services.

Notes:

Infrastructure can include: (ISO 9001:2015 7.1.3):

- i buildings and associated utilities;
- ii equipment, including hardware and software;
- iii transportation resources;
- iv information and communication technology.

4.3 Environment for Operation of Shore Based and Shipboard Services (1 April 2020)

4.3.1 [q] The Company shall determine, provide and maintain the environment, both on board the ships and in the shore-based office, necessary for the operation of its processes and to achieve conformity of service requirements. (ISO 9001:2015 7.1.4)

Notes:

A suitable environment can be a combination of human and physical factors, such as:

- i social (e.g., non-discriminatory, calm, non-confrontational);
- ii psychological (e.g., stress-reducing, burnout prevention, emotionally protective);
- iii physical (e.g., temperature, heat, humidity, light, airflow, hygiene, noise).

4.4 Designated Person(s) (1 April 2020)

4.4.1 [s] The Company's top management shall designate member(s) of management who, irrespective of other responsibilities, shall have defined roles, responsibilities, skills, competence and authority to: (ISM 4)

- i) provide a link between the Company and those aboard to ensure the safe operation of each ship;
- ii) liaise with external parties on matters concerning establishment, approval, and timely auditing of the management systems to comply with applicable code, standard, or industry guidelines;
- iii) monitor the safety and pollution prevention aspects of the operation of each ship and ensure that adequate resources and shore-based support are applied, as required.

4.4.2 [s] The designated person(s) shall have direct access to the highest level of management.

4.5 Master's Responsibility and Authority (1 April 2020)

4.5.1 [s] The Company should clearly define and document the Master's responsibility with regard to: (ISM 5.1)

- i) implementing the occupational health, safety, environmental-protection, and quality policy(ies) of the Company, as applicable;
- ii) motivating the crew in the observation of that policy;
- iii) issuing appropriate orders and instructions in a clear and simple manner;
- iv) verifying that specified requirements are observed; and
- v) periodically reviewing the management system and reporting its deficiencies to the shore-based management.

4.5.2 [s] The Company should ensure that the management system operating on board the ship contains a clear statement emphasizing the master's authority. The Company should establish in the management system that the master has the overriding authority and the responsibility to make decisions with respect to safety and pollution prevention and to request the Company's assistance as may be necessary. (ISM 5.2)

4.6 Shipboard Personnel (1 April 2020)

4.6.1 [s] Master's Qualification and Support

The Company should ensure that the Master is: (ISM 6.1)

- i)* properly qualified for command;
- ii)* fully conversant with Company's safety management system; and
- iii)* given the necessary support so that the Master's duties can be safely performed.

4.6.2 Ship Personnel

4.6.2.1 [s] The Company should ensure that each 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 maintaining safe operations on board. (ISM 6.2)

4.6.2.2 [s] The Company should establish procedures by which the ship's personnel receive relevant information on the management system in a working language or languages understood by them. (ISM 6.6)

4.6.2.3 [s] The Company should ensure that the ship's personnel are able to communicate effectively in the execution of their duties related to the management system. (ISM 6.7)

4.7 Competence, Training, and Awareness (1 April 2020)

4.7.1 General

4.7.1.1 [s] The Company shall ensure that all personnel performing tasks for it or on its behalf that have potential to impact safe operation, significant energy use, pollution prevention, environment, OH&S risks, and conformity of the service to requirements (as applicable) shall be competent on the basis of appropriate education, training (both externally and internally provided), skills and/or experience, and shall retain associated documented information. (ISO 9001:2015 7.2, ISO 14001:2015 7.2, ISO 45001:2018 7.2, ISO 50001:2018 7.2)

4.7.1.2 The Company shall:

- i)* [s] determine the necessary competence for personnel performing work under its control that affects the performance and effectiveness of the management system;
- ii)* [s] ensure that these persons are competent on the basis of appropriate education, training, or experience;
- iii)* [s] establish and maintain documented procedures for identifying any training which may be required in support of the management system and ensure that such training is provided for all personnel concerned; (ISM 6.5)
- iv)* [s] where applicable, take actions to acquire and maintain the necessary competence, and evaluate the effectiveness of the actions taken; and

4.7.1.3 [s] The Company should ensure that all personnel involved in the Company's management system have an adequate understanding of relevant rules, regulations, codes, and guidelines. (ISM 6.4)

4.7.1.4 [s] Appropriate documented information of education, training, skills, and experience shall be maintained.

4.7.2 Management System Awareness

The Company shall establish, implement, and maintain procedures so that personnel working for it or on its behalf within the shore-based and shipboard organization are aware of: (ISO 9001:2015 7.3, ISO 14001:2015 7.3, ISO 45001:2018 7.3, ISO 50001:2018 7.3)

- i) [s] the management system policies, objectives and targets as applicable;
- ii) [s] their contribution to the effectiveness of their management system, including the benefits of improved performance;
- iii) [s] the implications and potential consequences of not conforming to the management system requirements including not fulfilling the Company's compliance obligations as appropriate;
- iv) [e] the significant environmental aspects and related actual or potential environmental impacts associated with their work;
- v) [h] incidents and the outcomes of investigations that are relevant to them;
- vi) [h] hazards, OH&S risks and actions determined that are relevant to them;
- vii) [h] the ability to remove themselves from work situations that they consider present an imminent and serious danger to their life or health, as well as the arrangements for protecting them from undue consequences for doing so; and
- viii) [En] the impact of their activities or behavior with respect to energy performance;

4.7.3 [s] Familiarization Training

The Company should establish, implement and maintain procedures so that new personnel and personnel transferred to new assignments related to occupational health, safety, protection of the environment, and quality, as applicable, are given proper familiarization with their duties. Instructions which are essential to be provided prior to sailing should be identified, documented, and given. (ISM 6.3)

4.7.4 [q] Organizational Knowledge

The Company shall determine the knowledge necessary for the operation of its processes and to achieve conformity of services. This knowledge shall be maintained and be made available to the extent necessary. (ISO 9001:2015 7.1.6)

4.8 Communication, Participation, and Consultation (1 April 2020)

4.8.1 [s] The Company shall establish, implement and maintain processes needed for internal and external communications relevant to management system, including determining: (ISO 9001:2015 7.4, ISO 14001:2015 7.4.1, ISO45001:2018 7.4.1, ISO50001:2018 7.4)

- i) on what it will communicate;
- ii) when to communicate;
- iii) with whom to communicate:
 - a) [h] internally among the various levels and functions of the Company;
 - b) [h] among contractors and visitors to the workplace;
 - c) [h] among other interested parties;
- iv) how to communicate;
- v) who communicates;

4.8.2 When establishing its communication process(es), the Company shall:

- i) [e][h][En] internal communication among the various levels and functions within the Company including any changes;
- ii) [e][h] take into account its compliance obligations, legal and other requirements;
- iii) [e][h][En] ensure that information to be communicated is consistent with information generated within the management system, is reliable and dependable.
- iv) [h] respond to relevant communications on its OH&S management system,
- v) [s] shall retain documented information as evidence of its communications, as appropriate.

4.8.3 [s] If the entity who is responsible for the operation of the ship is other than the owner, the owner must report the full name and details of such entity to the Administration and record maintained. (ISM 3.1)

4.8.4 [h] The company shall take into account diversity aspects (e.g., gender, language, culture, literacy, disability) when considering its communication needs and ensure that the views of external interested parties are considered in establishing its communication process(es). (ISO 45001:2018 7.4.1)

4.8.5 Internal Communication

The Company shall:

- i) [e][h] internally communicate information relevant to the OH&S and Environmental management system among the various levels and functions of the Company, including changes to the management system, as appropriate; (ISO 14001:2015 7.4.2.a, ISO 45001:2018 7.4.2.a)
- ii) [e][h] ensure its communication process(es) enables workers to contribute to continual improvement; (ISO 14001:2015 7.4.2.b, ISO 45001:2018 7.4.2.b)
- iii) [En] establish and implement a process by which any person(s) doing work under the Company's control can make comments or suggest improvements to the EnMS and to energy performance. (ISO 50001:2018 7.4)

4.8.6 [e][h] External Communication

The Company shall externally communicate information relevant to the management system, as established by its communication process(es) and as required by its compliance obligations, legal and other requirements. (ISO 14001:2015 7.4.3, ISO 45001:2018 7.4.3)

4.8.7 [h] Consultation and Participation of Workers

The Company shall establish, implement and maintain a process(es) for consultation and participation of workers at all applicable levels and functions, and, where they exist, workers' representatives, in the development, planning, implementation, performance evaluation and actions for improvement of the OH&S management system.

The Company shall (ISO 45001:2018 5.4):

- i) provide mechanisms (see Note 1), time, training and resources necessary for consultation and participation;
- ii) provide timely access to clear, understandable and relevant information about the OH&S management system;
- iii) determine and remove obstacles or barriers (see Note 2) to participation and minimize those that cannot be removed;
- iv) emphasize the consultation of non-managerial workers on the following:
 - a) determining the needs and expectations of interested parties (see 4.2);
 - b) establishing the OH&S policy (see 5.2);

- c)* assigning organizational roles, responsibilities and authorities, as applicable (see 5.3);
- d)* determining how to fulfil legal requirements and other requirements (see 6.1.3);
- e)* establishing OH&S objectives and planning to achieve them (see 6.2);
- f)* determining applicable controls for outsourcing, procurement and contractors (see 8.1.4);
- g)* determining what needs to be monitored, measured and evaluated (see 9.1);
- h)* planning, establishing, implementing and maintaining an audit program(s) (see 9.2.2);
- i)* ensuring continual improvement (see 10.3).
- v)* emphasize the participation of non-managerial workers in the following:
 - a)* determining the mechanisms for their consultation and participation;
 - b)* identifying hazards and assessing risks and opportunities (see 6.1.1 and 6.1.2);
 - c)* determining actions to eliminate hazards and reduce OH&S risks (see 6.1.4);
 - d)* determining competence requirements, training needs, training and evaluating training (see 7.2);
 - e)* determining what needs to be communicated and how this will be done (see 7.4);
 - f)* determining control measures and their effective implementation and use (see 8.1, 8.1.3 and 8.2);
 - g)* investigating incidents and nonconformities and determining corrective actions (see 10.2).

Notes:

- 1** Worker representation can be a mechanism for consultation and participation.
- 2** Obstacles and barriers can include failure to respond to worker inputs or suggestions, language or literacy barriers, reprisals or threats of reprisals and policies or practices that discourage or penalize worker participation.
- 3** Emphasizing the consultation and participation of non-managerial workers is intended to apply to persons carrying out the work activities, but is not intended to exclude, for example, managers who are impacted by work activities or other factors in the Company.
- 4** It is recognized that the provision of training at no cost to workers and the provision of training during working hours, where possible, can remove significant barriers to worker participation.

4.9 Control of Documented Information (1 April 2020)

4.9.1 [s] Documented information required by the management system and by this Guide shall: (ISM 11.1, ISO 9001:2015 7.5.3 & 4.4.2, ISO 14001:2015 7.5.3, ISO 45001:2018 7.5.3, ISO 50001:2018 7.5.3)

- i)* be controlled to ensure they are available and suitable for use, where and when they are needed; and,
- ii)* be controlled to ensure they are adequately protected (e.g., from loss of confidentiality, improper use, or loss of integrity);
- iii)* address distribution, access, retrieval and use;
- iv)* address storage and preservation, including preservation of legibility;
- v)* address control of changes (e.g., version control);
- vi)* address retention and disposal.

Note: Access can imply a decision regarding the permission to view the documented information only, or the permission and authority to view and change the documented information.

4.9.2 [s] Documented information of external origin determined by the Company to be necessary for the planning and operation of the management system shall be identified as appropriate, and be controlled.

Documented information retained as evidence of conformity shall be protected from unintended alterations. (ISO 9001:2015 7.5.3.2, ISO 14001:2015 7.5.3, ISO 45001:2018 7.5.3, ISO 50001:2018 7.5.3)

4.9.3 [s] The Company shall establish, implement, and maintain documented procedures to control all documented information and data relevant to the management system so that: (ISM 11.1 & 2, ISO 9001:2015 7.5.2, ISO 14001:2015 7.5.2, ISO 45001:2018 7.5.2, ISO 50001:2018 7.5.2)

- i)* valid documented information is available at all relevant locations with identification and description (e.g., title, date, author or reference number);
- ii)* changes to the documented information are reviewed and approved for suitability and adequacy by authorized personnel;
- iii)* documented information is of appropriate format (e.g., language, software version, graphic) and media (e.g., paper, electronic) are used;
- iv)* invalid or obsolete documented information is promptly removed.

4.9.4 [s] Documented information should be kept in a form that the Company considers most effective. Each ship should carry on board all documented information relevant to that ship. (ISM 11.3)

4.9.5 [s] A copy of the Document of Compliance (DOC) should be placed onboard the vessel in order that the Master, if so asked, may produce it for verification by the Administration or organizations recognized by the Administration. (ISM 13.6)

4.9.6 [s] A copy of the Safety Management Certificate (SMC) issued to the vessel should be retained ashore.

4.10 Operational Control (1 April 2020)

4.10.1 The Company shall plan, implement and control the processes needed to meet the management system requirements for the provision of services and to implement the actions determined in their management planning, by: (ISO 9001:2015 8.1, ISO 45001:2018 8.1, ISO 50001:2018 8.1)

- i)* [s] including procedures, plans, instructions and checklists as appropriate, for key shipboard operations concerning safety of the personnel, ship, and protection of the environment. The various tasks should be defined and assigned to qualified personnel; (ISM Code 7)
- ii)* [q] determining the requirements for the services; (ISM 9001:2015 8.1(a))
- iii)* [s] determining, maintaining and retaining documented information to the extent necessary to have confidence that the processes have been carried out as planned and to demonstrate the conformity services to their requirements; (ISO 9001:2015 8.1(e), ISO 45001:2018 8.1(c), ISO 50001:2018 8.1(d))
- iv)* [q] determining the resources needed to achieve conformity to the service requirements; (ISO 9001:2015 8.1(c))
- v)* [q][h] implementing control of the processes in accordance with the criteria; (ISO 9001:2015 8.1(d), ISO 45001:2018 8.1.1(b))
- vi)* [e] considering risks, opportunity and environmental objectives and by establishing operating criteria for the process(es) and implementing control of the process(es), in accordance with the operating criteria; (ISO 14001:2015 8.1)
- vii)* [h] adapting work to workers. At multi-employer workplaces, the Company shall coordinate the relevant parts of the OH&S management system with the other organizations; (ISO 45001:2018 8.1(d))
- viii)* [En] including SEUs; (ISO 50001:2018 8.1)

- ix) [En] communicating the energy performance criteria to relevant person(s) doing work under the control of the company; (ISO 50001:2018 8.1(b))
- x) [q][En] establishing criteria for the processes, the acceptance of services; (ISO 9001:2015 8.1(b), ISO 50001:2018 8.1(c))
- xi) [En] including the effective operation and maintenance of facilities, equipment, systems and energy-using processes, where their absence can lead to a significant deviation from intended energy performance. (ISO 50001:2018 8.1(a))

4.10.2 The Company shall confirm that outsourced processes are controlled including:

- i) [q][e][En] the type and extent of control to be applied to process(es) is to be defined within the management system (ISO 9001:2015 8.1, ISO 14001:2015 8.1);
- ii) [En] SEUs or processes related to its SEUs. (ISO 50001:2018 8.1)

4.10.3 [e] Consistent with a life cycle perspective, the Company shall (ISO 14001:2015 8.1):

- i) establish controls, as appropriate, to ensure that its environmental requirement(s) is (are) addressed in the design and development process for the service, considering each life cycle stage;
- ii) determine its environmental requirement(s) for the procurement of products and services, as appropriate;
- iii) communicate its relevant environmental requirement(s) to external providers, including contractors;
- iv) consider the need to provide information about potential significant environmental impacts associated with the transportation or delivery, use, end-of-life treatment and final disposal of its services.

4.10.4 [q] The Company shall implement service provision under controlled conditions. Controlled conditions shall include, as applicable the: (ISO 9001:2015 8.5.1, 8.6)

- i) availability of documented information that defines:
 - a) the characteristics of the services to be provided, or the activities to be performed;
 - b) the results to be achieved;
- ii) availability and use of suitable monitoring and measuring resources;
- iii) implementation of monitoring and measurement activities at appropriate stages to verify that criteria for control of processes or outputs, and acceptance criteria for services, have been met;
- iv) use of suitable infrastructure and environment for the operation of processes;
- v) appointment of competent persons, including any required qualification;
- vi) validation, and periodic revalidation, of the ability to achieve planned results of the processes for service provision, where the resulting output cannot be verified by subsequent monitoring or measurement;
- vii) implementation of actions to prevent human error;
- viii) implementation of release, delivery and post-delivery activities.

4.10.5 [q] The Company shall meet requirements for post-delivery activities associated with the services. In determining the extend of post-delivery activities that are required, the Company shall consider (ISO 9001:2015 8.5.5):

- i) statutory and regulatory requirements;
- ii) the potential undesired consequences associated with its services;

- iii) the nature, use and intended lifetime of its services;
- iv) customer requirements;
- v) customer feedback.

Note: Post-delivery activities can include actions under warranty provisions, contractual obligations such as maintenance services, and supplementary services such as recycling or final disposal.

4.10.6 [q] The company shall implement planned arrangements, at appropriate states, to verify that the service requirements have been met.

The release of service to the customer shall not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, as applicable, by the customer.

4.11 Control of Externally Provided Processes, Products and Services (1 April 2020)

4.11.1 [q] General

The Company shall **ensure** that externally provided processes, products or services conforms to specified requirements. The Company shall demonstrate adequate controls to external providers processes, **products** and services when (ISO 9001:2015 8.4.1):

- i) **products and** services provided from external providers are intended for incorporation in Company's services;
- ii) **products and** services provided directly to the customer(s) by external provider(s) on behalf of the Company;
- iii) a **process** or part of the **process** is provided by an external provider as a result of Company's decision.

4.11.2 [q] Evaluation of External Providers (e.g., suppliers, service providers)

The Company shall (ISO 9001:2015 8.4.1):

- i) determine and apply criteria for the evaluation, selection, monitoring of performance and re-evaluation of external provider(s) based on their ability to provide processes or services in accordance with requirements;
- ii) maintain documented information of these activities and any necessary actions arising from the evaluations. (See 4.9)

4.11.3 External Providers, Contractors and Outsourcing

4.11.3.1 [q] External Providers

The Company shall **ensure** that externally provided **processes and** services do not adversely affect the Company's ability to consistently deliver conforming services to its customers. The Company shall (ISO 9001:2015 8.4.2):

- i) ensure that externally provided processes remain within the control of its quality management system;
- ii) define both the controls that it intends to apply to an external provider and those it intends to apply to the resulting output;
- iii) take into consideration:
 - the potential impact of the externally provided processes and services on the Company's ability to consistently meet customer and applicable statutory and regulatory requirements;

- the effectiveness of the controls applied by the external provider.
- iv) determine the verification, or other activities, necessary to ensure that externally provided processes and services meet requirements.

4.11.3.2 [h] Contractors

The Company shall coordinate its procurement process(es) with its contractors, in order to identify hazards and to assess and control the OH&S risks arising from: (ISO 45001:2018 8.1.4.2)

- i) the contractors' activities and operations that impact the Company;
- ii) the Company's activities and operations that impact the contractors' workers;
- iii) the contractors' activities and operations that impact other interested parties in the workplace.

The Company shall ensure that the requirements of its OH&S management system are met by contractors and their workers. The Company's procurement process(es) shall define and apply occupational health and safety criteria for the selection of contractors

4.11.3.3 [h] Outsourcing

The Company shall ensure that outsourced functions and processes are controlled. The Company shall ensure that its outsourcing arrangements are consistent with legal requirements and other requirements and with achieving the intended outcomes of the OH&S management system. The type and degree of control to be applied to these functions and processes shall be defined within the OH&S management system. (ISO 45001:2018 8.1.4.3)

Coordination with external providers can assist a Company to address any impact that outsourcing has on its OH&S performance.

4.11.4 [q] Information for External Providers

The Company shall **ensure** the adequacy of requirements prior to their communication to the external providers. The Company shall communicate to external providers its requirements for: (ISO 9001:2015 8.4.3)

- i) processes and services to be provided;
- ii) approval of services, methods, processes and equipment, and the release of services;
- iii) competence, including any required qualifications of persons;
- iv) the external providers' interactions with the Company;
- v) control and monitoring of the external provider's performance to be applied by the Company;
- vi) verification or validation activities that the Company or its customer, intends to perform at the external providers' premises.

4.11.5 Procurement

4.11.5.1 [h] The Company shall establish, implement and maintain a process(es) to control the procurement of products and services in order to ensure their conformity to its OH&S management system. (ISO 45001:2018 8.1.4.1)

4.11.5.2 [En] The Company shall establish and implement criteria for evaluating energy performance over the planned or expected operating lifetime, when procuring energy using products, equipment and services which are expected to have a significant impact on the Company's energy performance. (ISO 50001:2018 8.3)

When procuring energy using products, equipment and services that have, or can have, an impact on SEUs, the Company shall inform suppliers that energy performance is one of the evaluation criteria for procurement.

Where applicable, the Company shall define and communicate specifications for ensuring the energy performance of procured equipment and services and the purchase of energy.

4.12 Property Belonging to Customers or External Providers (1 April 2020)

4.12.1 [q] The Company shall exercise care with property belonging to customers or external providers while it is under the Company's control and being used by it. The Company shall identify, verify, protect, and safeguard customers' or external providers' property provided for use or incorporation into the services. When the property is lost, damaged, or otherwise found to be unsuitable for use, the Company shall report this to the customer or external provider and retain documented information on what has occurred. (See 4.9)

Note: A customer's or external provider's property can include materials, components, tools and equipment, premises, intellectual property and personal data. (ISO 9001:2015 8.5.3)

4.13 Preservation of Service (1 April 2020)

4.13.1 [q] The Company shall preserve the outputs during service provision to the extent necessary to ensure conformity to requirements.

Note: Preservation can include identification, handling, contamination control, packaging, storage, transmission or transportation and protection. (ISO 9001:2015 8.5.4)

4.14 Identification and Traceability (1 April 2020)

4.14.1 [q] The Company shall use suitable means to identify outputs to ensure the conformity of services. The Company shall identify the status of service outputs with respect to monitoring and measurement requirements throughout service provision, (See 4.9) This shall include service status and traceability information such as ship's position, estimated time of arrival, and cargo load port, discharge port, and location, quantity of cargo aboard ship and other charterer requirements, etc.) (ISO 9001:2015 8.5.2).

4.15 Maintenance of the Ship and Equipment (1 April 2020)

4.15.1 [s] General

The Company should establish procedures to ensure that the ship is maintained in conformity with the provisions of the relevant rules and regulations and with any additional requirements which may be established by the Company. (ISM 10.1)

4.15.2 [s] Inspections

In meeting these requirements, the Company should ensure that: (ISM 10.2)

- i) inspections are held at appropriate intervals;
- ii) any non-conformity is reported, with its possible cause, if known;
- iii) appropriate corrective action is taken; and
- iv) documented information of these activities are maintained.

4.15.3 [s] Critical Equipment and Systems

4.15.3.1 The Company should identify equipment and technical systems the sudden operational failure of which may result in hazardous situations. The safety management system should provide for specific measures aimed at promoting the reliability of such equipment or systems. These measures should include

the regular testing of stand-by arrangements and equipment or technical systems that are not in continuous use. (ISM 10.3)

4.15.3.2 The inspections mentioned in 4.15.2 as well as the measures referred to in 4.15.3.1 should be integrated into the ship's operational maintenance routine. (ISM 10.4)

4.16 Monitoring and Measuring (1 April 2020)

4.16.1[q] Resources

The Company shall determine and provide the resources needed to ensure valid and reliable results when monitoring or measuring is used to verify the conformity of services to requirements. (ISO 9001:2015 7.1.5.1)

The Company shall ensure:

- i) that the resources provided are suitable for the specific type of monitoring and measurement activities being undertaken;
- ii) that the resources provided are maintained to ensure their continuing fitness for their purpose;
- iii) appropriate documented information is retained as evidence of fitness for purpose of monitoring and measuring resources.

4.16.2 Measurement Traceability

4.16.2.1 [q] When measurement traceability is a requirement, or is considered by the Company to be an essential part of providing confidence in the validity of measurement results, measuring equipment shall be: (ISO 9001:2015 7.1.5.2):

- i) calibrated or verified, or both, at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; when no such standards exist, the basis used for calibration or verification shall be retained as documented information;
- ii) identified in order to determine their status;
- iii) safeguarded from adjustments, damage or deterioration that would invalidate the calibration status and subsequent measurement results.

4.16.2.2 [q] The Company shall determine if the validity of previous measurement results has been adversely affected when measuring equipment is found to be unfit for its intended purpose and shall take appropriate action as necessary. (ISO 9001:2015 7.1.5.2)

4.16.2.3 [e][h] The Company shall ensure that calibrated or verified monitoring and measurement equipment is used and maintained as appropriate, and shall retain associated documented information. (See 4.9) (ISO 14001:2015 9.1.1, ISO 45001:2018 9.1.1)

4.17 Emergency Preparedness and Response (1 April 2020)

4.17.1 [s] General

The management system should provide for measures ensuring that the Company's shore-based and shipboard organization can respond at any time to hazards, accidents and emergency situations, especially those involving their ships. (ISM 8.3)

4.17.2 Emergency Plans

4.17.2.1 [s] The Company shall identify potential emergency situations that can have an impact on health, safety, and environment and establish procedures how it will respond to them, in both shipboard and shore-based operations. (ISM 8.1)

4.17.2.2 [s] The Company shall establish, implement, and maintain procedures & process(s) needed to prepare for and respond to potential emergency situations, as identified, including: (ISM 1.4.5, ISO 14001:2015 8.2, ISO 45001:2018 8.2)

- i) [h] establishing a planned response to emergency situations, including the provision of first aid; (ISO 45001:2018: 8.2(a))
- ii) [e] planned actions to prevent or mitigate adverse environmental impacts from emergency situations; (ISO 14001:2015 8.2(a))
- iii) [e][h] providing training for the planned response and respond to actual emergency situations; (ISO 14001:2015 8.2(b), ISO 45001:2018 8.2(b))
- iv) [e] taking action to prevent or mitigate the consequences of emergency situations, appropriate to the magnitude of the emergency and the potential environmental impact; ISO 14001:2015 8.2(c))
- v) [h] communicating and providing relevant information to all workers on their duties and responsibilities; (ISO 45001:2018 8.2(e))
- vi) [h] communicating relevant information to contractors, visitors, emergency response services, government authorities and, as appropriate, the local community; (ISO 45001:2018 8.2(f))
- vii) [e] providing relevant information and training related to emergency preparedness and response, as appropriate, to relevant interested parties, including persons working under its control; (ISO 14001:2015 8.2(f))
- viii) [h] taking into account the needs and capabilities of all relevant interested parties and ensuring their involvement, as appropriate, in the development of the planned response. (ISO 45001:2018 8.2(g))

4.17.3 Drills and Exercises

[s] The Company shall :

- i) [s] establish a program of drills and exercises to prepare for emergency situations;
- ii) [s] periodically test and exercise the planned response capability; (ISM 8.2, ISO 14001:2015 8.2(d), ISO 45001:2018 8.2(c))
- iii) [s] maintain and retain documented information on the process(es) and on the plans for responding to potential emergency situations; (ISO 14001:2015 8.2, ISO 45001:2018 8.2)
- iv) [e][h] periodically evaluate performance and as necessary revise the planned response, in particular, after the occurrence of emergency situations or periodical test. (ISO 14001:2015 8.2(e), ISO 45001:2018 8.2(d))

4.18 [En] Design (1 April 2020)

The Company shall consider energy performance improvement opportunities and operational control in the design of new, modified and renovated facilities, equipment, systems and energy-using processes that can have a significant impact on its energy performance over the planned or expected operating lifetime.

Where applicable, the results of the energy performance consideration shall be incorporated into specification, design and procurement activities.

The Company shall retain documented information of the design activities related to energy performance. (ISO 50001:2018 8.2).

4.19 Eliminating Hazards and Reducing OH&S Risks (1 April 2020)

[s] The Company shall assess all identified risks to its ships, personnel and the environment and establish appropriate safeguards and establish, implement and maintain process(es) for the elimination of hazards

and reduction of OH&S risks using the following hierarchy of controls: (ISM 1.2.2.2, ISO 45001:2018 8.1.2)

- i) eliminate the hazard;
- ii) substitute with less hazardous processes, operations, materials or equipment;
- iii) use engineering controls and reorganization of work;
- iv) use administrative controls, including training;
- v) use adequate personal protective equipment.

Note: In many countries, legal and other requirements include the requirement that personal protective equipment (PPE) is provided at no cost to workers.

4.20 Management of Change (1 April 2020)

4.20.1 [s] The Company shall control planned changes and review the consequences of unintended changes, taking action to mitigate any adverse effects, as necessary. (ISO 9001:2015 8.1, ISO 14001:2015 8.1, ISO 45001:2018 8.1.3, ISO 50001:2018 8.1)

4.20.2[q] The Company shall review and control changes for service provision, to the extent necessary to ensure continuing conformity with requirements. The documented information shall be retained describing the results of the review of changes, the person(s) authorizing the change, and any necessary actions arising from the review. (ISO 9001:2015 8.5.6)

SECTION 5

Performance Evaluation

5 Performance Evaluation

5.1 Monitoring, Measurement, Analysis and Evaluation (1 April 2020)

5.1.1 General

5.1.1.1 [s] The Company shall establish, implement and maintain a process(es) for monitoring, measurement, analysis and evaluate the performance and effectiveness of the management system. (ISO 9001:2015 9.1.1, ISO 14001:2015 9.1.1, ISO 45001:2018, 9.1.1, ISO 50001:2018 9.1.1)

5.1.1.2 The Company shall monitor, measure, analyze and evaluate its performance. The Company shall:

- i) [s]** determine what needs to be monitored and measured, including: (ISO 9001:2015 9.1.1(a), ISO 14001:2015 9.1.1(a), ISO 45001:2018 9.1.1(a))
 - a)** the extent to which legal requirements and other requirements are fulfilled;
 - b)** its activities and operations related to identified hazards, risks and opportunities;
 - c)** progress towards achievement of the Company's objectives; and
 - d)** effectiveness of operational and other controls.
- ii) [s]** determine the methods for monitoring, measurement, analysis, evaluation as applicable to ensure valid results; (ISO 9001:2015 9.1.1(b), ISO 14001:2015 9.1.1(b), ISO 45001:2018 9.1.1(b), ISO 50001:2018 9.1.1(b))
- iii) [s]** determine when the monitoring and measuring shall be performed; (ISO 9001:2015 9.1.1(c), ISO 14001:2015 9.1.1(d), ISO 45001:2018 9.1.1(d))
- iv) [s]** determine when the results from monitoring and measurement shall be analyzed and evaluated and communicated; (ISO 9001:2015 9.1.1 (d), ISO 14001:2015 9.1.1(e), ISO 45001:2018 9.1.1(e), ISO 50001:2018 9.1.1(d))
- v) [e]** ensure that calibrated or verified monitoring and measuring equipment is used and maintained as appropriate.
- vi) [e][h]** determine the criteria against which the Company will evaluate its OH&S and environmental performance and appropriate indicators. (ISO 14001:2015 9.1.1(c), ISO 45001:2018 9.1.1(c))

5.1.1.3 [s] The Company shall evaluate its performance and the effectiveness of the management system. Documented information of evidence of monitoring, measurement, analysis, and evaluation results shall be maintained (See 4.9). (ISO 9001:2015 9.1.1, ISO 14001:2015 9.1.1, ISO 45001:2018 9.1.1, ISO 50001:2018 9.1.1)

5.1.1.4 [q] The Company shall analyze and evaluate appropriate data and information arising from monitoring and measurement.

The results of analysis shall be used to evaluate: (ISO 9001:2015 9.1.3)

- i)* conformity of services;
- ii)* the degree of customer satisfaction;
- iii)* the performance and effectiveness of the quality management system;
- iv)* the need for improvements of the management system;
- v)* if planning has been implemented effectively;
- vi)* the effectiveness of actions taken to address risk and opportunities;
- vii)* the performance of external providers.

5.1.1.5 [e] The Company shall communicate relevant environmental performance information both internally and externally, as identified in its communication process(es) and as required by its compliance obligations. (ISO 14001:2015, 9.1.1)

5.1.1.6 [En] The Company shall determine for energy performance and the EnMS: (ISO 50001:2018 9.1.1(a))

- i)* What needs to be monitored and measured, including at a minimum the following key characteristics:
 - i)* the effectiveness of the action plans in achieving objectives and energy targets;
 - ii)* EnPI(s);
 - iii)* operation of SEUs; and
 - iv)* actual versus expected energy consumption.
- ii)* Improvement in energy performance shall be evaluated by comparing EnPI value(s) against the corresponding energy baselines.

5.1.1.7 [En] The Company shall investigate and respond to significant deviations in energy performance and retain appropriate documented information on the results from monitoring and measurement (See 4.16). (ISO 50001:2018 9.1.1)

5.1.2 [q] Customer Satisfaction

The Company shall monitor customers' perceptions of the degree to which their needs and expectations have been fulfilled. The Company shall determine the methods for obtaining, monitoring and reviewing this information. (ISO 9001: 2015 9.1.2)

Note: Examples of monitoring customer perceptions can include customer surveys, customer feedback on delivered services, meetings with customers, market-share analysis, compliments, warranty claims and dealer reports.

5.1.3 Evaluation of Compliance with Legal and other Requirements

5.1.3.1 [s] The Company shall establish, implement and maintain the process(es) needed to evaluate compliance with legal requirements and other requirements by (ISO 14001:2015 9.1.2):

- i)* determining the frequency and method(s) for the evaluation of compliance;
- ii)* evaluating compliance and take action if needed;

- iii) maintaining knowledge and understanding of its compliance status with legal requirements and other requirement;

5.1.3.2 [En] At planned intervals, the Company shall evaluate compliance with legal and other requirements related to its energy efficiency, energy use, energy consumption and the EnMS. (ISO 50001:2018 9.1.2)

5.1.3.3 [s] Company shall retain documented information of the compliance evaluation result(s) and any actions taken. (ISO 14001:2015 9.1.2, ISO 45001:2018 9.1.2)

5.2 Control of Incident, Nonconformity and Corrective Action (1 April 2020)

5.2.1 Incident, Nonconformity and Corrective Action

5.2.1.1 [s] The management system shall establish, implement and maintain documented procedures ensuring that nonconformities, incidents, accidents and hazardous situations, are reported to the Company, investigated, analyzed and taking action to determine, manage these with the objective of improving safety, pollution prevention, and continual improvement of the management system. The reporting and investigation of incidents without undue delay should be made to enable hazards to be eliminated and associated risks to be minimized as soon as possible. (ISM 1.4.4, ISO 45001:2018 10.2)

5.2.1.2 [s] The Company should establish procedures for the implementation of corrective action, including measures intended to prevent recurrence. (ISM 9.2)

5.2.1.3 When a nonconformity, incident, accident or hazardous situation is identified (including customers' complaints), the Company shall:

- i) [s] ensure that management personnel responsible for the area involved take timely corrective action as applicable by taking action to control, correct and deal with the consequences, including mitigating adverse environmental impacts; (ISM 12.7, ISO 9001:2015 10.2.1(a), ISO 14001:2015 10.2(a), ISO 45001:2018 10.2(a), ISO 50001:2018 10.1(a))
- ii) [s] evaluate the need for action to eliminate the cause(s) in order that it does not recur or occur elsewhere, by: (ISO 9001:2015 10.2.1(b), ISO 14001:2015 10.2(b), ISO 50001:2018 10.1(b))
 - a) reviewing and analyzing
 - b) determining the causes and
 - c) determining if similar nonconformity and hazardous situation exist or could potentially occur.
- iii) [s] determine and implement any action needed, including corrective action, in accordance with the hierarchy of controls and the management of change; (ISO 9001:2015 10.2.1(c), ISO 14001:2015 10.2(c), ISO 45001:2018 10.2(d), ISO 50001:2018 10.1(c))
- iv) [s] reviewing the effectiveness of any corrective action taken including the review of existing assessments of OH&S risks and other risks, as appropriate; (ISO 9001:2015 10.2.1(d), ISO 14001:2015 10.2(d), ISO 45001:2018 10.2(c) & (f), ISO 50001:2018 10.1(d))
- v) [q] update risks and opportunities determined during planning, if necessary: (ISO 9001:2015 10.2.1(e))
- vi) [h] evaluate, with the participation of workers and the involvement of other relevant interested parties, the need for corrective action to eliminate the root cause(s) of the incident or nonconformity, in order that it does not recur or occur elsewhere, by: (ISO 45001:2018 10.2(b))
 - a) investigating the incident or reviewing the nonconformity;
 - b) determining the cause(s) of the incident or nonconformity;

- c)* determining if similar incidents have occurred, if nonconformities exist, or if they could potentially occur.
- vii)* [h] review existing assessments of OH&S risk and other risks as appropriate: (ISO 45001:2018 10.2(d))
- viii)* [h] assess OH&S risks that relate to new or changed hazards, prior to taking action: (ISO 45001:2018 10.2(e))
- ix)* [s] make changes to the management system, if necessary. (ISO 9001:2015 10.2.1(f), ISO 14001:2015 10.2(e), ISO 45001:2018 10.2(g), ISO 50001:2018 10.1(e))

5.2.1.4 [s] Corrective actions shall be appropriate to the effects or potential effects of the nonconformities, incidents, accidents and hazardous situations encountered. The Company shall retain documented information as evidence of: ISO 9001:2015 10.2.2, ISO 14001:2015 10.2, ISO 45001:2018 10.2)

- i)* the nature of the nonconformities, incidents, accidents and hazardous situations and any subsequent actions taken;
- ii)* the results of any corrective action, including their effectiveness.

5.2.1.5 [h] The Company shall communicate this documented information to relevant workers, and, where they exist, workers' representatives, and other relevant interested parties. (ISO 45001:2018 10.2)

5.2.2 Control of Nonconforming Outputs

5.2.2.1 [q] The Company shall ensure that outputs that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery. The Company shall take appropriate action based on the nature of the nonconformity and its effect on the conformity of services. This shall also apply to nonconforming services detected during or after the provision of services. (ISO 9001:2015 8.7.1)

The Company shall deal with nonconforming outputs in one or more of the following ways:

- i)* correction;
- ii)* segregation, containment, return or suspension of provision of services;
- iii)* informing the customer;
- iv)* obtaining authorization for acceptance under concession.

5.2.2.2 [q] Conformity to the requirements shall be verified when nonconforming outputs are corrected.

5.2.2.3 [q] The Company shall retain documented information that: (ISO 9001:2015 8.7.2)

- i)* describes the nonconformity;
- ii)* describes the actions taken;
- iii)* describes any concessions obtained;
- iv)* identifies the authority deciding the action in respect of the nonconformity.

5.3 Internal Audit (1 April 2020)

5.3.1 [s] The Company shall conduct internal audits of the management system on board and ashore at intervals not exceeding twelve months to verify implementation of management system planned activities. In exceptional circumstances, this interval may be exceeded by not more than three months. (ISM 12.1)

5.3.2 [s] The Company should periodically verify whether all those undertaking delegated ISM-related tasks are acting in conformity with the Company's responsibility under the Code. (ISM 12.2)

5.3.3 [s] The Company shall evaluate the effectiveness of the management system in accordance with the procedures established by the Company. (ISM 12.3)

5.3.4 [s] The Company shall: (ISO 9001:2015 9.2.1, ISO 14001:2015 9.2.1, ISO 45001:2018 9.2.1, ISO 50001:2018 9.2.1)

- i)* define the audit criteria and scope for each audit; and,
- ii)* select auditors and conduct audits to ensure objectivity and the impartiality of the audit process; personnel carrying out audits should be independent of the areas being audited unless this is impracticable due to size and the nature of the Company; (ISM 12.5)
- iii)* establish, implement and maintain internal audit program(s), including the frequency, methods, responsibilities, planning requirements and reporting which shall take into consideration the importance of the processes concerned, changes affecting the Company, and the results of previous audits. (ISO 9001:2015 9.2.2, ISO 14001:2015 9.2.2, ISO 45001:2018 9.2.2, ISO 50001:2018 9.2.2)

5.3.5 [s] The audits and possible corrective actions should be carried out in accordance with documented procedures. (ISM 12.4)

5.3.6 [s] The results of the audits and reviews should be brought to the attention of all personnel having responsibility in the area involved, relevant management and /or top management. **Documented information** of the implementation of the audit program and audit results should be maintained. (ISM 12.6)

5.3.7 [s] The management personnel responsible for the area involved should take timely corrective action on deficiencies found and their causes **without undue delay**. (ISM 12.7)

SECTION 6

Management Review and Improvement (1 April 2020)

6 Management Review and Improvement (1 April 2020)

6.1 Management Review (1 April 2020)

6.1.1 [s] The Company shall develop, implement, and maintain procedures for management reviews.

6.1.2 [s] The Company's top management shall at planned intervals, not to exceed one year, review the policies and management system(s) in accordance with documented procedures. This in order to determine and evaluate its continuing suitability, adequacy, efficiency, and effectiveness in assessing opportunities for improvement and the need for changes to the management system, including stated policies and objectives and targets. (ISM 1.4.6 & 12.3, ISO 9001:2015 9.3.1, ISO 14001:2015 9.3, ISO 45001:2018 9.3, ISO 50001:2018 9.3.1)

6.1.3 Input to management review shall include consideration of the: (ISO 9001:2015 9.3.2, ISO 14001:2015 9.3, ISO 45001:2018 9.3, ISO 50001:2018 9.3.2 & 3)

- i)* [s] results of audits and evaluations of compliance with applicable legal requirements and with other requirements to which the Company subscribes;
- ii)* [s] extent to which objectives and targets, as appropriate, have been met;
- iii)* [s] status of incident investigations, corrective and preventive actions;
- iv)* [s] status of actions from previous management reviews;
- v)* [s] changing circumstances in legal and other requirements related to its operations;
- vi)* [s] opportunities for continual improvement;
- vii)* [s] adequacy of resources;
- viii)* [q] effectiveness of actions taken to address risks, and opportunities;
- ix)* [q][e] changes in external and internal issues that are relevant to management system;
- x)* [q][e][h] review of the safety, quality, environmental, energy (including EnPIs) and/or OH&S performance as applicable and effectiveness of the management system, including trends in:
 - i)* [q] customer satisfaction and feedback from relevant interested parties;
 - ii)* [q] the extent to which quality objectives have been met;
 - iii)* [q] process performance and conformity of services;
 - iv)* [q][e][h] incidents, non conformities, corrective actions and opportunity for continual improvement;
 - v)* [q][e] monitoring and measurement results;

- vi) [q][e] audit results;
- vii) [q] the performance of external providers;
- viii) [e] fulfillment of its compliance obligation;
- ix) [h] consultation and participation of workers;
- xi) [e] changes in needs and expectation of interested parties, including compliance obligations;
- xii) [e] change in its significant environmental aspects, risks and opportunities.
- xiii) [e][h] communication(s) from external interested parties, including customer feedback and complaints;
- xiv) [En] energy policy and energy performance input which includes:
 - i) the extent to which objectives and energy targets have been met;
 - ii) energy performance and energy performance improvement based on monitoring and measurement results including the EnPI(s).

6.1.4 [s] The output from the management review shall include any decisions related to possible: (ISO 9001:2015 9.3.3, ISO 14001:2015 9.3, ISO 45001:2018 9.3, ISO 50001:2018 9.3.4)

- i) changes to policy;
- ii) actions needed when objectives have not been achieved;
- iii) resource needs;
- iv) opportunities for improvement;
- v) [En] improvements of competence, awareness and communication;
- vi) conclusions on the continuing suitability, adequacy and effectiveness of the management system;
- vii) [h] any implications for the strategic direction of the company;
- viii) [e][h] opportunities to improve integration of the management system with other business processes;
- ix) [En] EnPI(s) or EnB(s), and opportunities to improve energy performance.

6.1.5 [s] The results of the reviews shall be brought to the attention of all personnel having responsibility in the area involved.

6.1.6 [h] Top management shall communicate the relevant outputs of management reviews to workers, and, where they exist, workers' representatives.

6.1.7 [s] If corrective action is identified during the management review, the management personnel responsible for the area involved shall take timely corrective action on deficiencies found.

6.1.8 [s] Documented information of management review shall be maintained.

6.2 Improvement (1 April 2020)

6.2.1 General

6.2.1.1 The Company shall determine opportunities for improvement and implement necessary actions to achieve the intended outcomes: (ISO 9001:2015 10.1; ISO 14001:2015 10.1; ISO 45001:2018 10.1)

- i) [q] To meet customer requirements and enhance customer satisfaction;
- ii) [e] To achieve intended outcomes of its environmental management system;
- iii) [h] Intended outcome of its OH&S management system.

6.2.1.2 [q] These shall include: (ISO 9001:2015 10.1)

- i)* improving services to meet requirements as well as to address future needs and expectations;
- ii)* correcting, preventing or reducing undesired effects;
- iii)* improving the performance and effectiveness of the quality management system.

6.2.2 Continual Improvement

6.2.2.1 [s] The Company shall continually improve the suitability, adequacy and effectiveness of the management system, by: (ISO 9001:2015 10.3; ISO 14001:2015 10.3; ISO 45001:2018 10.3; ISO 50001:2018 10.2)

- i)* **[h]** Enhancing OH&S performance;
- ii)* **[h]** Promoting a culture that supports an OH&S management system;
- iii)* **[h]** Promoting the participation of workers in implementing actions for the continual improvement of the OH&S management system;
- iv)* **[h]** Communicating the relevant results of continual improvement to workers, and, where they exist, workers' representatives;
- v)* **[h]** Maintaining and retaining documented information as evidence of continual improvement. (ISO 45001:2018 10.3)

6.2.2.2 [q] The Company shall consider the results of analysis and evaluation, and the outputs from management review, to determine if there are any needs or opportunities that shall be addressed as part of continual improvement. (ISO 9001:2015 10.3)

6.2.2.3 [En] The Company shall demonstrate continual energy performance improvement. (ISO 50001:2018 10.2)

APPENDIX 1

Cross References (1 April 2020)

Correspondence Between ISM Code, ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018 and ABS Guide for Marine Health, Safety, Quality, Environmental and Energy Management (1 April 2020)

	ABS HSQEE ⁿ Guide, 2020	ISM Code	ISO 9001: 2015	ISO 14001: 2015	ISO 45001: 2018	ISO 50001: 2018
1	General					
1.1	Scope and Application	1.3	1	1	1	1
1.2	Certification	13, 14, 15, 16	---	---	---	---
1.3	Definitions	1.1	3	3	3	3
2	Context, Leadership and Policy					
2.1	Context of Company	---	4.1, 4.2, 4.3	4.1, 4.2, 4.3	4.1, 4.2, 4.3	4.1, 4.2, 4.3
2.2	Leadership and Commitment	---	5.1	5.1	5.1	5.1
2.3	Occupational Health, Safety, Environmental and Energy Policy	1.2.1, 1.4.1 2.1, 2.2	5.2	5.2	5.2	5.2
3	Planning					
3.1	General	---	6.1.1, 6.1.2, 8.1	6.1.1, 6.1.4	6.1.1, 6.1.4	6.1.1, 6.1.2
3.2	Environmental Aspects	---	---	6.1.2	---	---
3.3	Energy Review	---	---	---	---	6.3, 6.4, 6.5, 6.6
3.4	Hazard Identification, Risk Assessment, Actions to address Risk and Opportunities	---	---	6.1.1	6.1.1, 6.1.2.1, 6.1.2.2, 6.1.2.3	---
3.5	Compliance Obligations	1.2.3	8.2.2	6.1.3	6.1.3	4.2

3.6	Objectives and Targets	1.2.2.1, 1.2.2.2, 1.2.2.3	6.2.1	6.2.1	6.2.1	6.2.1, 6.2.2
3.7	Planning to Achieve Objectives	---	6.2.2	6.2.2	6.2.2	6.2.3
3.8	Planning for Change	---	6.3, 7.1.6	---	8.1.3	---
3.9	Customer Requirements	---	8.2.1, 8.2.3, 8.2.4	---	---	---
3.10	Management System	1.2.3, 1.4.2, 1.4.3, 1.4.4, 1.4.6, 3.2, 11.3	4.4.1, 7.5.1	4.4, 7.5.1	4.4, 7.5.1	4.4, 7.5.1
4	Implementation and Operation					
4.1	Resources, Roles, Responsibility, Accountability, and Authority	3.3	5.3, 7.1.1, 7.1.2	5.3, 7.1	5.3, 7.1	5.3, 7.1
4.2	Infrastructure	---	7.1.3	---	---	---
4.3	Environment for Operation of Shore Based and Shipboard Services	---	7.1.4	---	---	---
4.4	Designated Person(s)	4	---	---	---	---
4.5	Master's Responsibility and Authority	5.1, 5.2	---	---	---	---
4.6	Shipboard Personnel	6.1, 6.2 6.6, 6.7	---	---	---	---
4.7	Competence, Training, and Awareness	6.3, 6.4 6.5	7.1.6, 7.2, 7.3	7.2, 7.3	7.2, 7.3	7.2, 7.3
4.8	Communication, Participation, and Consultation	3.1	7.4	7.4.1, 7.4.2, 7.4.3	5.4, 7.4.1, 7.4.2, 7.4.3	7.4
4.9	Control of Documented Information	11.1, 11.2, 11.3, 13.6	4.4.2, 7.5.2, 7.5.3	7.5.2, 7.5.3	7.5.2, 7.5.3	7.5.2, 7.5.3
4.10	Operational Control	7	8.1, 8.5.1, 8.5.5, 8.6	8.1	8.1.1	8.1
4.11	Control of Externally Provided Processes, Products and Services	---	8.4.1, 8.4.2, 8.4.3	---	8.1.4	8.3
4.12	Property Belonging to Customers or External Providers	---	8.5.3	---	---	---
4.13	Preservation of Service	---	8.5.4	---	---	---
4.14	Identification and Traceability	---	8.5.2	---	---	---
4.15	Maintenance of the Ship and Equipment	10.1, 10.2 10.3, 10.4	---	---	---	---

4.16	Monitoring and Measuring	---	7.1.5	9.1.1	9.1.1	---
4.17	Emergency Preparedness and Response	1.4.5, 8.1, 8.2, 8.3	---	8.2	8.2	---
4.18	Design	---	---	---	---	8.2
4.19	Eliminating Hazards and Reducing OH&S Risks	1.2.2.2	---	---	8.1.2	---
4.20	Management of Change	---	8.1, 8.5.6	8.1	8.1.3	8.1
5	Performance Evaluation					
5.1	Monitoring, Measurement, Analysis and Evaluation	---	9.1.1, 9.1.2, 9.1.3	9.1.1, 9.1.2	9.1.1, 9.1.2	9.1.1, 9.1.2
5.2	Control of Incident, Nonconformity and Corrective Action	1.4.4, 9.1, 9.2, 12.7	8.7, 10.2.1, 10.2.2	10.2	10.2	10.1
5.3	Internal Audit	12.1, 12.2, 12.4, 12.5, 12.6, 12.7	9.2.1, 9.2.2	9.2.1, 9.2.2	9.2.1, 9.2.2	9.2.1, 9.2.2
6	Management Review and Improvement					
6.1	Management Review and Improvement	1.4.6, 12.3	9.3	9.3	9.3	9.3
6.2	Improvement	---	10.1, 10.3	10.1, 10.3	10.1, 10.3	10.2

APPENDIX 2

Supplemental Requirements of the ISM Code

These requirements (refer to Part B of the ISM code) are provided for guidance only. Requirements of this section pertain to issuance of certificates and periodical verifications.

13 Certification and Periodical Verification (ISM Code Part B)

13.1 The ship should be operated by a Company which has been issued with a Document of Compliance or with an Interim Document of Compliance in accordance with paragraph 14.1, relevant to that ship.

13.2 The Document of Compliance should be issued by the Administration, by an organization recognized by the Administration or, at the request of the Administration, by another Contracting Government to the Convention to any Company complying with the requirements of this Code for a period specified by the Administration which should not exceed five years. Such a document should be accepted as evidence that the Company is capable of complying with the requirements of this Code.

13.3 The Document of Compliance is only valid for the ship types explicitly indicated in the document. Such indication should be based on the types of ships on which the initial verification was based. Other ship types should only be added after verification of the Company's capability to comply with the requirements of this Code applicable to such ship types. In this context, ship types are those referred to in regulation IX/1 of the Convention.

13.4 The validity of a Document of Compliance should be subject to annual verification by the Administration or by an organization recognized by the Administration or, at the request of the Administration by another Contracting Government within three months before or after the anniversary date.

13.5 The Document of Compliance should be withdrawn by the Administration or, at its request, by the Contracting Government which issued the document, when the annual verification required in paragraph 13.4 is not requested or if there is evidence of major nonconformities with this Code.

13.5.1 All associated Safety Management Certificates and/or Interim Safety Management Certificates should also be withdrawn if the Document of Compliance is withdrawn.

13.6 A copy of the Document of Compliance should be placed onboard in order that the master of the ship, if so requested, may produce it for verification by the Administration or by an organization recognized by the Administration or for the purposes of the control referred.

13.7 The Safety Management Certificate should be issued to a ship for a period which should not exceed five years by the Administration or an organization recognized by the Administration or, at the request of the Administration, by another Contracting Government. The Safety Management Certificate should be issued after verifying that the Company and its shipboard management operate in accordance with the

approved safety management system. Such a certificate should be accepted as evidence that the ship is complying with the requirements of this Code.

13.8 The validity of the Safety Management Certificate should be subject to at least one intermediate verification by the Administration or an organization recognized by the Administration or, at the request of the Administration, by another Contracting Government. If only one intermediate verification is to be carried out and the period of validity of the Safety Management Certificate is five years, it should take place between the second and third anniversary date of the Safety Management Certificate.

13.9 In addition to the requirements of paragraph 13.5.1, the Safety Management Certificate should be withdrawn by the Administration or, at the request of the Administration, by the Contracting Government which has issued it when the intermediate verification required in paragraph 13.8 is not requested or if there is evidence of major nonconformity with this Code.

13.10 Notwithstanding the requirements of paragraphs 13.2 and 13.7, when the renewal verification is completed within three months before the expiry date of the existing Document of Compliance or Safety Management Certificate, the new Document of Compliance or the new Safety Management Certificate should be valid from the date of completion of the renewal verification for a period not exceeding five years from the date of expiry of the existing Document of Compliance or Safety Management Certificate.

13.11 When the renewal verification is completed more than three months before the expiry date of the existing Document of Compliance or Safety Management Certificate, the new Document of Compliance or the new Safety Management Certificate should be valid from the date of completion of the renewal verification for a period not exceeding five years from the date of completion of the renewal verification.

13.12 When the renewal verification is completed after the expiry date of the existing Safety Management Certificate, the new Safety Management Certificate should be valid from the date of completion of the renewal verification to a date not exceeding five years from the date of expiry of the existing Safety Management Certificate.

13.13 If a renewal verification has been completed and a new Safety Management Certificate cannot be issued or placed on board the ship before the expiry date of the existing certificate, the Administration or organization recognized by the Administration may endorse the existing certificate and such a certificate should be accepted as valid for a further period which should not exceed five months from the expiry date.

13.14 If a ship at the time when a Safety Management Certificate expires is not in a port in which it is to be verified, the Administration may extend the period of validity of the Safety Management Certificate but this extension should be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be verified, and then only in cases where it appears proper and reasonable to do so. No Safety Management Certificate should be extended for a period of longer than three months, and the ship to which an extension is granted should not, on its arrival in the port in which it is to be verified, be entitled by virtue of such extension to leave that port without having a new Safety Management Certificate. When the renewal verification is completed, the new Safety Management Certificate should be valid to a date not exceeding five years from the expiry date of the existing Safety Management Certificate before the extension was granted.

14 Interim Certification

14.1 An Interim Document of Compliance may be issued to facilitate initial implementation of this Code when:

.1 a Company is newly established; or

.2 new ship types are to be added to an existing Document of Compliance, following verification that the Company has a safety management system that meets the objectives of paragraph 1.2.3 of this Code, provided the Company demonstrates plans to implement a safety management system meeting the full

requirements of this Code within the period of validity of the Interim Document of Compliance. Such an Interim Document of Compliance should be issued for a period not exceeding 12 months by the Administration or by an organization recognized by the Administration or, at the request of the Administration, by another Contracting Government. A copy of the Interim Document of Compliance should be placed on board in order that the master of the ship, if so requested, may produce it for verification by the Administration or by an organization recognized by the Administration or for the purposes of the control referred to in regulation IX/6.2 of the Convention. The copy of the document is not required to be authenticated or certified.

14.2 An Interim Safety Management Certificate may be issued:

- .1 to new ships on delivery;
- .2 when a Company takes on responsibility for the operation of a ship which is new to the Company; or
- .3 when a ship changes flag.

Such an Interim Safety Management Certificate should be issued for a period not exceeding 6 months by the Administration or an organization recognized by the Administration or, at the request of the Administration, by another Contracting Government.

14.3 An Administration or, at the request of the Administration, another Contracting Government may, in special cases, extend the validity of an Interim Safety Management Certificate for a further period which should not exceed 6 months from the date of expiry.

14.4 An Interim Safety Management Certificate may be issued following verification that:

- .1 the Document of Compliance, or the Interim Document of Compliance, is relevant to the ship concerned;
- .2 the safety management system provided by the Company for the ship concerned includes key elements of this Code and has been assessed during the audit for issuance of the Document of Compliance or demonstrated for issuance of the Interim Document of Compliance;
- .3 the Company has planned the internal audit of the ship within three months;
- .4 the master and officers are familiar with the safety management system and the planned arrangements for its implementation;
- .5 instructions, which have been identified as being essential, are provided prior to sailing; and
- .6 relevant information on the safety management system has been given in a working language or languages understood by the ship's personnel.

15 Verification

15.1 All verifications required by the provisions of this Code should be carried out in accordance with procedures acceptable to the Administration, taking into account the guidelines developed by the Organization.

16 Forms of Certificates

16.1 The Document of Compliance, the Safety Management Certificate, the Interim Document of Compliance and the Interim Safety Management Certificate should be drawn up in a form corresponding to the models given in the appendix to this Code. If the language used is neither English nor French, the text should include a translation into one of these languages.

16.2 In addition to the requirements of paragraph 13.3 the ship types indicated on the Document of Compliance and the Interim Document of Compliance may be endorsed to reflect any limitations in the operations of the ships described in the safety management system.

APPENDIX 3

Terms and Conditions for the use of “ABS SMS Certified” and “ABS HSQEEEn Certified” Logos

- A3.1** When a Company is successful in obtaining (and maintaining) its ISM and/or HSQEEEn certification, the corresponding ABS HSQEEEn/SMS Certified Logo(s) may be used with the understanding that its use must be controlled as follows:
- A3.1.1** Any advertisement or other use of the logo is to be presented to the Director of ABS Management Systems Certification for review prior to use.
 - A3.1.2** The logo may only be used on correspondence, advertising and promotional material but must not be used except in connection with those services described in the scope of the Certificate of Company Compliance (CCC).
 - A3.1.3** The logo may be used only on those materials (i.e., internet site, letterhead, marketing literature, advertising, invoice stock forms, packaging, etc.) relating to the particular facility and vessel type included within the Certificate of Company Compliance.
 - A3.1.4** The logo may not, under any circumstances, be used directly on or closely associated with any management system documentation (such as procedures, policies, plans, etc.) in such a way as to imply that the documents themselves are certified by ABS.
 - A3.1.5** If used with other logos, ABS may ask that the Company discontinue any use of other logos that are unacceptable to ABS and any form of statement that, in the opinion of ABS, might be misleading.
 - A3.1.6** When advertising the Company as ABS Approved, the Company name, if different from the parent Company is to be used in conjunction with the logo.
 - A3.1.7** The logo may be scaled uniformly to any size necessary. The color of the logo shall be either black or blue. (reflex blue or PMS 294 blue)
 - A3.1.8** Upon termination or invalidation of certification for whatever reason, the certified Company must undertake to immediately discontinue all use of the logo(s) and to destroy all stocks of material on which they appear.
 - A3.1.9** Logos are available by email from msc-corp@eagle.org.