



GUIDE FOR

**MARINE HEALTH, SAFETY, QUALITY,
ENVIRONMENTAL AND ENERGY MANAGEMENT**
(The ABS Guide for Marine Management Systems)

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Updates

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Foreword

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 50001** and OHSAS 18001, 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 50001** and OHSAS 18001 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.

In this revision of the Guide, **the new Energy Management Systems (EnMS) – Requirements (ISO 50001:2011) have been incorporated. Proper implementation of these requirements should assist the company to achieve continual improvement in energy consumption, energy performance and efficiency, leading to reductions in energy cost and greenhouse gas emissions and other environmental impacts through systematic management of energy. In the Guide, the EnMS requirements are identified by an “En” notation.**

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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GUIDE FOR MARINE HEALTH, SAFETY, QUALITY, ENVIRONMENTAL **AND ENERGY** MANAGEMENT

S

1 GENERAL

1.1 Scope and Application

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.

The requirements of this Guide have been largely derived from the sound management system principles reflected in the requirements of the “International Management Code for the Safe Operation of Ships and for Pollution Prevention” (also known as the “International Safety Management Code”, or more commonly as the “ISM Code”), “Quality management systems – Requirements” (ISO 9001:2008), “Environmental management systems – Requirements with guidelines for use” (ISO 14001:2004), “Energy Management Systems – Requirements with guidelines for use” (ISO 50001:2011) and “Occupational health and safety management systems – Requirements” (OHSAS 18001:2007). 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 7.3 of the ISO 9001:2008 standard, Design and Development. 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 and environmental management. These requirements address environmental management concerns from a regulatory compliance perspective.

Requirements identified by an “h” are **occupational health** management requirements that should 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 OHSAS 18001:2007. 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 should 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 9001:2008. 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 should 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 14001:2004. 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 should 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 50001:2011. 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 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.

1.2 Certification

1.2.1 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.

1. The safety requirements or "S";
2. Safety and quality requirements or "SQ";
3. Safety and environmental requirements or "SE";
4. Safety and energy requirements or "SEn";
5. Safety and health requirements or "HS";
6. Safety, quality and environmental requirements or "SQE";
7. Safety, quality and energy requirements or "SQEn";
8. Safety, environmental and energy requirements or "SEEn";
9. Safety, health, and quality requirements or "HSQ";
10. Safety, health, and environmental requirements or "HSE";
11. Safety, health and energy requirements or "HSEn";
12. Safety, quality, environmental and energy requirements or "SQEEn";
13. Safety, health, environmental and energy requirements or "HSEEn";
14. Safety, health, quality, and energy requirements or "HSQEn";
15. Safety, health, quality, and environmental requirements or "HSQE", and
16. Safety, health, quality, environmental and energy requirements or "HSQEEn"

Companies seeking certification to this Guide must, as a condition of certification, conform to the requirements of the ISM Code, ISO 9001:2008, ISO 14001:2004, ISO 50001:2011 and OHSAS 18001:2007, 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 for ISM Code certification.

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 recorded 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 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:

- a. Document, implement, and maintain a marine management system in accordance with the pertinent requirements of this Guide.
- b. **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.
- c. Provide ABS copies of pertinent management system documentation for review.
- d. 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.
- e. Maintain a record of all complaints received regarding the quality of services, occupational health and safety, environmental pollution, and the resolution thereof.
- f. Notify ABS of port state detentions of vessel(s) certified.
- g. 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 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 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 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 and of one ship operated by the client. Pre-assessments are optional for "s" only assessments. The range and scope of optional pre-assessment is determined by the client.

1.3 Definitions

The definitions listed below are taken, or adapted from the ISM Code, ISO 9001:2008, ISO 14001:2004, ISO 50001:2011, and OHSAS 18001:2007.

Acceptable risk – risk that has been reduced to a level that can be tolerated by the Company having regard to its legal obligations and its own OH&S policy.

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 document 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.

Auditor – person with the competence to conduct an audit.

Boundaries – physical or site limits and/or organizational limits defined by the organization.

Example: A process; a group of processes; a site; an entire organization; multiple sites under the control of an organization. (ISO50001:2011)

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 shipowner and who, on assuming such responsibility, has agreed to take over all duties and responsibilities imposed by the ISM Code.

Company = Organization [ISO 9001:2008, ISO 14001:2004, ISO 50001:2011, and OHSAS 18001:2007]

Continual improvement – recurring process 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.

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

Correction – action to eliminate a detected non-conformity.

Corrective Action – action to eliminate the cause of a detected nonconformity or other undesirable situation.

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

Customer satisfaction – perception of the degree to which the Customer’s requirements have been fulfilled.

DOC – Document of Compliance certificate

Document – information and its supporting medium.

Energy – electricity, fuels, steam, heat, compressed air, and other like media.

Energy baseline – quantitative reference(s) providing a basis for comparison of energy performance.

Energy consumption – quantity of energy applied.

Energy efficiency – ratio or other quantitative relationship between and output of performance, service, goods or energy, and an input of energy.

Energy management system (EnMS) – set of interrelated or interacting elements to establish an energy policy and energy objectives, processes and procedures to achieve those objectives.

Energy management team – person(s) responsible for effective implementation of the energy management system activities and for delivering energy performance improvements.

Energy Services – activities and their results related to the provision and/or use of energy.

Energy Target – detailed and quantitative energy performance requirement, applicable to the organization or parts thereof, that arises from the energy objective and that needs to be set and met in order to achieve this objective.

Energy Use – manner or kind of application of energy.

Environment – surroundings in which a Company and its ships operate, including air, water, land, natural resources, flora, fauna, humans, and their interrelation.

Environmental aspect – element of a Company’s activities or products or services that can interact with the environment.

Environmental impact – any change to the environment, whether adverse or beneficial, wholly or partially resulting from a Company’s environmental aspects.

Environmental objective – overall environmental goal, consistent with the environmental policy, that a Company sets itself to achieve, and which is quantifiable where practicable.

Environmental management system – part of a Company’s management system used to develop and implement its environmental policy and manage its environmental aspects

Environmental performance – measurable results of a Company’s management of its environmental aspects.

Environmental target – detailed performance requirement, quantified where practicable, applicable to the Company or its ships, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.

Hazard – source, situation or act with a potential for harm, in terms of injury or ill health, damage to property, damage to workplace environment or a combination of these.

Hazard identification – process of recognizing that a hazard exists and defining its characteristics.

Ill health – identifiable adverse physical or mental condition arising from and/or made worse by a work activity and/or work-related situation.

Infrastructure – system of facilities, equipment, and services needed for the operation of the Company.

Incident – work-related event(s) in which an injury or ill health (regardless of severity) or fatality occurred or could have occurred.

Internal audit – systematic, independent, and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the management system audit criteria set by the Company are fulfilled

Interested Parties – person or group, inside or outside the workplace, concerned with or affected by the performance of the Company.

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.

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.

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

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 goal stated in terms of the management system’s performance, that the company sets itself to achieve.

Objective (energy) – specified outcome or achievement set to meet the organization’s energy policy related to improved energy performance.

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

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

Occupational health and safety (OH&S) – conditions and factors that affect, or could affect, the health and safety of employees, temporary workers, contractor personnel, visitors, and any other person in the workplace.

OH&S management system – part of the company’s management system used to develop and implement its OH&S policy and manage its OH&S risks

Performance – measurable results of the company’s management of its impacts and/or risks and achievement of its objectives.

Performance (energy) – measurable results related to energy efficiency, energy use and energy consumption.

Performance indicator (energy) EnPI – quantitative value or measure of energy performance, as defined by the organization.

Policy – overall intentions and direction of a Company related to its performance as formally expressed by the top management.

Preventive action – action to eliminate the cause of a potential non-conformity or other undesirable potential situation.

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.

Procedure – specified way to carry out an activity or a process.

Record – document stating results achieved or providing evidence of activities performed.

Requirement – a need or expectation generally stated, generally implied or obligatory

Risk – combination of the likelihood of an occurrence of a hazardous event or exposure(s) and the severity of injury or ill health that can be caused by the event or exposure(s).

Risk assessment – overall process of evaluating the risk(s), arising from a hazard(s), taking into account the adequacy of any existing controls, and deciding whether or not the risk(s) is acceptable.

Safety aspect – element of a Company's activities or services that represents an actual or potential risk to safety or personnel, or the ship.

Significant energy use – energy use accounting for substantial energy consumption and/or offering considerable potential for energy performance improvement.

SMC – Safety Management Certificate.

Supplier – Company or person that supplies a product or service.

System – set of interrelated or interacting elements required to direct and control a Company.

Top management – person(s) who directs or controls a Company **at the highest level**.

Work environment – set of conditions or physical location, under control of the Company, in which the work and related activities are performed.

In this document, text that appears in italics is taken directly from the cited standard.
Text in standard font comprises the ABS recommendations and requirements.

GUIDE FOR MARINE HEALTH, SAFETY, QUALITY, ENVIRONMENTAL **AND ENERGY** MANAGEMENT

2 POLICY

2.1 General Requirements

2.1.1 The Company to be certified **shall** establish, document, implement, maintain, and continually improve a management system to the relevant requirements of this Guide and fulfill these requirements as specified therein. The Company should define and document the scope **and boundaries** of certification of its management system.

2.1.2 The Company's top management should establish, document and maintain pertinent policy(ies) for Occupational Health, Safety, Quality, **Energy** and Environmental Protection in accordance with and appropriate to the management system.

2.1.3 The Company's **top management** should require that the policy is communicated, implemented, understood, and maintained at all levels of the organization, both ship-based and shore-based.

2.2 Occupational Health, Safety, Environmental **and Energy Policy**

2.2.1 The policy should **state the company's commitment to achieving health, safety, environmental and energy performance improvement and should** describe how the objectives of the management system will be achieved. These objectives, as a minimum, should 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.

2.2.2 Top management should define and authorize the Company's policy(ies) and require that, within the defined scope of its management system, it:

- a. *"should provide for safe practices in ship operation and a safe working environment;" (ISM 1.2.2.1)*
- b. *"includes a commitment to continual improvement, and prevention of pollution" and "improvement in energy performance"; (ISO 14001:2004 4.2.b, ISO 50001:2011 4.3.b)*
- c. *"should assess all identified risks to its ships, personnel and the environment and establish appropriate safeguards"; (ISM 1.2.2.2)*
- d. *"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)*

- s e. *“includes a commitment to at least comply with applicable legal requirements, and with other requirements to which the organization subscribes that relate to its OH&S hazards, “to its environmental aspects” and “energy use, consumption and efficiency” (OHSAS 18001:2007 4.2c, ISO 14001:2004 4.2.c, ISO 50001:2011 / 4.3.d)*
- h f. *“includes a commitment to prevention of injury and ill health and continual improvement in OH&S management and OH&S performance”;* (OHSAS 18001:2007 4.2.b)
- En g. *“includes a commitment to ensure the availability of information and of necessary resources to achieve objectives and targets. (ISO 50001:2011 4.3.c)*
- eh h. *“is communicated to all persons working for and on behalf” and “under the control of the organization with the intent that they are made aware of their individual health and safety obligations”. (OHSAS 18001:2007 4.2.f, ISO 14001:2004 4.2f, (ISO 50001:2011 4.3.g)*
- En i. *“supports the purchase of energy-efficient products and services, and design for energy performance and improvement. (ISO 50001:2011 4.3.f)*
- En j. *“states the company’s commitment to achieving energy performance improvement” (ISO50001:2011 4.3)*
- s 2.2.3 Top management should define the Company’s policy and require that it is appropriate to the nature, scale, environmental impacts, **energy use and consumption** of the Company’s shore-based and shipboard risks, activities, and services.
- qeh 2.2.4 The HSQEEEn policy, as appropriate should provide a framework for setting and reviewing quality, environmental, **energy**, and OH&S objectives and targets and should be made available to the public and the Company’s customers, vendors and suppliers.
- En
- q **2.3 Quality Policy**
- 2.3.1 *“Top management shall ensure that the quality policy: (ISO 9001:2008 5.3)*
 - a. *is reviewed for continuing suitability;*
 - b. *includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system”*
- q 2.3.2 The Company’s organizational goals and expectations should be monitored, measured and analyzed by its management to verify that the processes are implemented effectively.

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3 PLANNING

3.1 Environmental Aspects

e 3.1.1 The Company should 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, taking into account planned or new developments or new or modified activities and services. The Company should determine which environmental aspects have or can have a significant impact on the environment. The Company shall document this information and keep it up-to-date.

e 3.1.2 The Company should take into account the significant environmental aspects when establishing, implementing, and maintaining its environmental management system.

3.2 Energy Planning (ISO 50001:2011 4.4.1)

En 3.2.1 *“The organization shall conduct and document an energy planning process. Energy planning shall be consistent with the energy policy and shall lead to activities that continually improve performance.*

“Energy planning shall involve a review of the organization’s activities that can affect energy performance.”

3.3 Hazard Identification, Risk Assessment, and Risk Control

h 3.3.1 The Company *“shall establish and maintain procedures for the ongoing hazard identification, risk assessment, and determination of necessary controls. The procedure(s) for hazard identification and risk assessment shall take into account:*
(OHSAS 18001:2007 4.3.1)

- a. “routine and non-routine activities;*
- b. “activities of all personnel having access to the workplace (including subcontractors and visitors);*
- c. “human behavior, capabilities, and other human factors;*
- d. “identified hazards originating outside the workplace capable of adversely affecting the health and safety of persons under the control of the Company within the workplace;*
- e. “hazards created in the vicinity of the workplace by work-related activities under the control of the Company;*

- f. *“infrastructure, equipment, and materials at the workplace, whether provided by the Company or others;*
 - g. *“changes or proposed changes in the Company, its activities, or materials;*
 - h. *“modifications to the OH&S management system, including temporary changes, and their impacts on operations, processes, and activities;*
 - i. *“any applicable legal obligations relating to risk assessment and implementation of necessary controls; and*
 - j. *“the design of work areas, processes, installations, machinery/equipment, operating procedures, and work organization, including their adaptation to human capabilities.”*
- h 3.3.2 *“The Company’s methodology for hazard identification and risk assessment shall:*
 - a. *“be defined with respect to its scope, nature, and timing to ensure it is proactive rather than reactive; and*
 - b. *“provide for the identification, prioritization, and documentation of risks and the application of controls, as appropriate.”*
- h 3.3.3 *“For the management of change, the Company shall identify the OH&S hazards and OH&S risks associated with changes in the Company, the OH&S management system, or its activities, prior to the introduction of such changes.”*
- h 3.3.4 *“The Company shall ensure that the results of these assessments are considered when determining controls.”*
- h 3.3.5 *“When determining controls, or considering changes to existing controls, consideration shall be given to reducing the risks according to the following hierarchy:*
 - a. *“elimination.*
 - b. *“substitution.*
 - c. *“engineering controls.*
 - d. *“signage/warnings and/or administrative controls.*
 - e. *“personal protective equipment.”*
- h 3.3.6 *“The Company shall document and keep the results of identification of hazards, risk assessments and determined controls up-to-date.”*
- h 3.3.7 *“The Company shall ensure that the OH&S risks and determined controls are taken into account when establishing, implementing, and maintaining its management system”.*
- 3.4 Legal and Other Requirements**
- s 3.4.1 The Company should establish, implement, and maintain a documented procedure:
 - s a. to identify mandatory rules and regulations applicable to both ship and shore-based operations;
 - s b. to identify applicable codes, guidelines, and standards recommended by the IMO, Administrations, classification societies, and maritime industry organizations;

- eh**
En
- c. for identifying and accessing the legal and other requirements to which the Company subscribes that are applicable to its OH&S requirements, Environmental aspects, and energy use, consumption and efficiency; and
- eh**
En
- d. for periodically evaluating compliance at least once every 12 months with applicable legal requirements and other requirements to which the Company subscribes. The Company shall keep records of the results of the periodic evaluations.
- e**
- e. to determine how these legal and other requirements apply to its environmental aspects.
- s**
- 3.4.2 The Company should take into account applicable legal requirements and other requirements to which the Company subscribes in establishing, implementing and maintaining its management system. The Company should review the legal and other requirements at least once every 12 months and keep this information up-to-date.
- h**
- 3.4.3 *The Company “shall communicate relevant information on legal and other requirements to persons working under control of the Company, and other relevant interested parties”. (OHSAS 18001:2007 4.3.2)*
- En**
- 3.5 Energy Review**
- 3.5.1 *“The organization shall develop, record, and maintain an energy review. The methodology and criteria used to develop the energy review shall be documented. To develop the energy review the organization shall: (ISO 50001:2011 4.4.3)*
- a. *“identify current energy sources;*
- b. *“evaluate past and present energy use and consumption”*
- 3.5.2 *“Based on the analysis of energy use and consumption, identify the areas of significant energy use:*
- a. *“identify the facilities, equipment, systems, processes and personnel working for, or on behalf of, the organization that significantly affect energy use and consumption;*
- b. *“identify other relevant variables affecting significant energy uses;*
- c. *“determine the current energy performance of facilities, equipment, systems and processes related to identified significant energy uses;*
- d. *“estimate future energy use and consumption”*
- 3.5.3 *“Identify, prioritize and record opportunities for improving energy performance.” The energy review shall be updated at intervals not exceeding 12 months as well as in response to major changes in facilities, equipment, systems, or processes.*
- En**
- 3.6 Energy Baseline (ISO 50001:2011 4.4.4)**
- “The organization shall establish an energy baseline(s) using the information in the initial energy review, considering a data period suitable to the organization’s energy use and consumption. Changes in energy performance shall be measured against the energy baseline(s).*

- “Adjustments to the baseline(s) shall be made in the case of one or more of the following:*
- a. “EnPIs no longer reflect organizational energy use and consumption, or*
 - b. “There have been major changes to the process, operational patterns, or energy systems, or*
 - c. “According to a predetermined method.*

“The energy baseline(s) shall be maintained and recorded.”

En 3.7 Energy Performance Indicators

“The organization shall identify EnPIs appropriate for monitoring and measuring its energy performance. The methodology for determining and updating the EnPIs shall be recorded and regularly reviewed. (ISO 50001:2011 4.4.5)

“EnPIs shall be reviewed and compared to the energy baseline as appropriate.”

3.8 Health, Safety, Environmental and Energy Objectives and Targets

- s** 3.8.1 The Company should establish, implement, and maintain documented objectives and targets at each relevant function and level within the shore-based and shipboard organization. (See 5.6) Responsibility and time frame for achieving these objectives and targets shall also be identified and documented.
- s** 3.8.2 The objectives and targets shall be consistent with the HSQEEEn policy, as appropriate. Targets shall be consistent with the objectives.
- 3.8.3 When establishing and reviewing its management system objectives and targets, the Company should:
 - s** a. comply with mandatory rules and regulations;
 - s** b. take into account applicable codes, guidelines and standards recommended by the Organization, Administrations, classification societies and maritime industry organizations.
 - e** c. consider those aspects of its operations that can have a significant environmental impact;
 - eh** d. consider the views of those both inside and outside the workplace, who are affected by the performance of the Company;
 - eh** e. consider technological options that are available;
 - eh** f. consider its financial, operational and business requirements; and
 - h** g. take into account its legal and other requirements, its OH&S hazards and risks, significant energy uses and opportunities to improve OHSAS and energy performance as identified in the relevant review.
- En** 3.8.4 The objectives and targets should be measurable, where practicable, and consistent with the health, safety, and environmental policy, including the Company’s commitment to promote safe operation, and prevention of injury and ill health, and prevention of pollution, to compliance with applicable legal requirements and with other requirements to which the Company subscribes, and to continual improvement.

q **3.9 Quality Planning and Objectives**

3.9.1 Top Management should:

- a. establish quality objectives, including those needed to meet the requirements of service at relevant functions and levels within the Company. These should be measurable and consistent with the quality policy and planning of activities should be carried out to meet the management system requirements as well as quality objectives.
- b. maintain the integrity of the management system when changes are planned and implemented.

3.9.2 *“The Company shall plan and develop the processes needed for service realization. Planning of service realization shall be consistent with the requirements of the other processes of the quality management system”. (ISO 9001:2008 7.1)*

3.9.3 In delivering the service the Company should determine the following, as appropriate:

- a. quality objectives and the customer’s requirements for the service;
- b. the need to establish procedures and documents and to provide resources specific to the service;
- c. the required verification, validation, monitoring, measurement, inspection, and test activities specific to the services and the criteria for service acceptance; and
- d. the records to be maintained to demonstrate compliance.

q 3.9.4 *“The output of this planning shall be in a form suitable for the Organization’s method of operations”. (ISO 9001:2008 7.1)*

Note: The output of this planning activity could be referred to as a quality plan.

3.10 Customer Focus

q 3.10.1 General

Top management shall ensure that customer’s requirements are determined and met with the aim of enhancing customer satisfaction. Additionally, the Company shall monitor information relating to the customer’s perception to demonstrate fulfilling customer requirements. The methods for obtaining and using this information should be determined and may include:

- a. procedures for reviewing pertinent voyage inspection and test records in order to determine if customer requirements have been met, and if requirements have not been met, corrective action should be taken; (See 5.6)
- b. participation in client meetings;
- c. soliciting of client feedback;
- d. tracking breakdowns, accidents, delays, and port state interventions;
- e. anticipating trends including opportunities for preventive action;
- f. tracking supplier’s performance and costs of purchases; (See 5.1.3)

- 3.10.2 Determination of the Requirements Related to Management of Ships (other services)
- q 3.10.2.1 Prior to committing to provide services to the client, the Company should determine and review the requirements related to the services to be delivered to confirm that;
- a. the requirements, including delivery and post-delivery of its services, are adequately defined and documented. Where the customer communicates his requirements by other means, these shall be confirmed prior to acceptance;
 - b. requirements not stated by the customer but considered necessary by the Company are addressed;
 - c. order requirements differing from those previously expressed are resolved; and
 - d. the Company has the ability to meet the defined requirements and;
 - e. statutory and regulatory requirements are identified.
- q 3.10.2.2 Where requirements are changed by the customer, the Company should verify that relevant documents are amended and that relevant personnel are made aware of the changed requirements.
- q 3.10.3 Customer Communication
- The Company *“shall determine and implement effective arrangements for communicating with customers in relation to:*
(ISO 9001:2008 7.2.3)
- a. *“the service or product information;*
 - b. *“enquiries, contracts or order handling, including amendments; and*
 - c. *“customer feedback, including customer complaints”.*
- q 3.10.4 Customer’s Records
- Records of the results of the review of requirements, and any actions arising from the review, should be maintained. (See 5.6)
- 3.11 Management Programs**
- 3.11.1 General
- s 3.11.1.1 The Company should establish, implement, and maintain programs for achieving its objectives and targets taking into account the unique design characteristics and operating requirements of each ship type.
- q 3.11.1.2 The Company *“shall determine the processes needed for the management system and their application throughout the Company. The Company shall determine the sequence and interaction of these processes”.* (ISO 9001:2008 4.1.a/4.1.b)
- 3.11.1.3 The programs should:
- s a. identify criteria, methods, resources, and information required to effectively monitor, measure where applicable, analyze, control, and implement the identified processes.
 - s b. include defined levels of responsibility and authority and lines of communication between, and amongst, shore and shipboard personnel;

- s c. include the means and time frame by which the objectives and targets are to be achieved;
- s d. designate responsibility for achieving objectives and targets at relevant functions and levels of the Company;
- qe e. implement actions necessary to achieve planned results and continual improvement of these processes.
- En f. include a statement of the method by which improvement in energy performance will be verified and the method by which results will be verified.
- s g. be reviewed at regular and planned intervals and updated as necessary, so that objectives are achieved.
- q 3.11.1.4 These processes should be managed by the Company in accordance with the requirements of this Guide.
- q 3.11.1.5 Where the Company “chooses to outsource any process that affects product conformity to requirements, the Company shall ensure control over such processes. The type and extent of control to be applied to these outsourced processes shall be defined within the management system”. (ISO 9001:2008, 4.1)
- q 3.11.2 Management Commitment and Responsibility (ISO 9001:2008 5.1) (ISO50001:2011 4.2.1)
- q 3.11.2.1 “Top management shall provide evidence of commitment to the development and implementation of the management system and continually improving its effectiveness by:
 - q a. “communicating the importance of meeting the customer’s as well as the statutory and regulatory requirements,
 - En b. “communicating the importance of energy management to those in the organization;
 - s c. “establishing the HSQEEEn policy, as appropriate;
 - s d. “ensuring that objectives and targets are established, as appropriate;
 - s e. “conducting management reviews;
 - s f. “providing the resources to establish, implement, maintain and improve the management system;
 - En g. “ensuring that EnPis are appropriate for the organization;
 - En h. “considering energy performance in the long term planning;
 - En i. “ensuring that results are measured and reported at predetermined intervals.”

3.12 Management System Documentation

- s** 3.12.1 The Company should describe the pertinent health, safety, environmental protection, **energy**, and quality programs, within the management system documentation, as applicable.
- 3.12.2 The management system documentation should;
- s** a. define and document the scope of the management system including details and justification for any exclusions;
- s** b. include pertinent Company policies, objectives and targets;
- s** c. 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;
- s** d. describe the core elements and outline the structure of the Company's management system and interaction of its elements, and reference to related documents;
- q** e. include documented procedures established for the management system or provide appropriate references to management system documentation. The complexity of the work and the skill level of personnel involved in performing the work and the work environment shall govern the degree of control provided within management system procedures;
- q** f. describe the interaction between the processes of the management system;
- s** g. include the procedures and records required by this Guide to demonstrate conformity to requirements and the effective planning, operation, and control of the management system processes. (See 5.6)
- he** h. include documents, including records, determined by the Company to be necessary to demonstrate the effective planning, operation, and control of processes that relate to its significant environmental aspects and management of its OH&S risks; and
- s** i. be kept in the form that the Company considers most effective.

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4 IMPLEMENTATION AND OPERATION

4.1 Resources, Roles, Responsibility, Accountability, and Authority

- s** 4.1.1 The Company's **top management** should **determine and** provide the resources essential to establish, implement, maintain, and improve the management system. Resources include human resources and specialized skills, organizational infrastructure, technology, and financial resources. Resources also include personnel suitably trained to perform verification activities including internal management system audits.
- he** 4.1.2 The Company's management should demonstrate its commitment by defining roles, allocating responsibilities and accountabilities, and delegating authorities, to facilitate effective OH&S management. Roles, responsibilities, accountabilities and authorities should be defined, documented, and communicated. All those with management responsibility should demonstrate their commitment to the continual improvement of OH&S performance.
- h** 4.1.3 *"Top management shall take ultimate responsibility for OH&S and the OH&S management system". (OHSAS 18001:2007 4.4.1)*
- q** 4.1.4 The Company's management should provide the resources needed to enhance customer satisfaction by meeting customer requirements.
- En** 4.1.5 *"The organization shall use the action plans and other outputs resulting from the planning process for implementation and operation." (ISO 50001:2011 4.5.1)*

4.2 Infrastructure

The Company should determine, provide, and maintain the infrastructure needed to achieve the specified or implied requirements of the customer.

"Infrastructure includes, as applicable: (ISO 9001:2008 6.3)

- a. "buildings, work space and associated utilities;*
- b. "process equipment (both hardware and software); and*
- c. "supporting services (e.g., transportation, communication, or information systems)".*

4.3 Work Environment

The Company should determine and manage the work environment, both on board the ships and in the shore-based office needed to achieve conformity to product requirements.

	4.4	Designated Person(s)/Quality Management Representative/Environmental Management Representative(s)/Energy Management Representative(s)/OH&S Management Representative
s	4.4.1	The Company's top management should appoint member(s) of management who, irrespective of other responsibilities, shall have defined roles, responsibilities, skills, competence and authority to:
s		a. report directly to the top management on management system performance and provide a link between the Company and those aboard;
En		b. <i>“identify person(s), authorized by an appropriate level of management, to work with the management representative in support of energy management activities.” (ISO 50001:2011 4.2.2.b)</i>
En		c. <i>“define and communicate responsibilities and authorities in order to facilitate effective energy management.” (ISO 50001:2011 4.2.2.f)</i>
s		d. 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, including requirements of this Guide;
s		e. monitor the safety and pollution prevention aspects of the operation of each ship and provide adequate shore-based support as required;
En		f. <i>“determine criteria and methods needed to ensure that both the operation and control of the EnMS are effective.” (ISO 50001:2011 4.2.2.g)</i>
En		g. <i>“ensure that the planning of energy management activities is designed to support the organization's energy policy.” (ISO 50001:2011 4.2.2.e)</i>
s		h. verify that the management system(s) are established, implemented, and maintained in accordance with the requirements of this Guide;
s		i. conduct reviews and report to top management on the performance of the management system(s), including recommendations for improvement; and
En		j. <i>“report to top management on energy performance.” (ISO 50001:2011 4.2.2.c)</i>
q En		k. promote awareness of customer, statutory, regulatory requirements, as well as energy policy and objectives throughout the organization, as appropriate.
s	4.4.2	The designated person(s)/management representative should have direct access to the highest level of management.
s	4.4.3	The Company should provide adequate resources and shore-based support to enable the Management representative/designated person or persons to carry out their functions.
h	4.4.4	The identity of the Management Representative(s) should be made available to all persons working under control of the Company.
h	4.4.5	The OH&S Management Representative shall be a member of top management.

s 4.5 Master's Responsibility and Authority

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

- a. *"implementing the occupational health, safety, environmental-protection, and quality policy of the Company;*
- b. *"motivating the crew in the observation of that policy;*
- c. *"issuing appropriate orders and instructions in a clear and simple manner;*
- d. *"verifying that specified requirements are observed; and*
- e. *"periodically reviewing the management system and reporting its deficiencies to the shore-based management."*

4.5.2 *"The Company should ensure that the safety management system operating on board the ship contains a clear statement emphasizing the master's authority. The Company should establish in the safety 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)*

s 4.6 Shipboard Personnel

4.6.1 **Master's Qualification and Support (ISM 6.1)**

"The Company should ensure that the Master is:

- a. *"properly qualified for command;*
- b. *"fully conversant with Company's safety management system; and*
- c. *"given the necessary support so that the Master's duties can be safely performed".*

s 4.6.2 Crew

4.6.2.1 *"The Company should ensure that each ship is manned with qualified, certificated, and medically fit seafarers in accordance with national and international requirements." (ISM 6.2)*

4.6.2.2 *"The Company should establish procedures to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment 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)*

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

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

h 4.6.2.5 *"The Company shall ensure that persons in the workplace take responsibility for aspects of OH&S over which they have control, including adherence to the Company's applicable OH&S requirements". (OHSAS 18001:2007 4.4.1)*

4.7 Competence, Training, and Awareness

4.7.1 General

s 4.7.1.1 The Company shall verify that any 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 records.

4.7.1.2 The Company should:

- s** a. determine the necessary competence for personnel performing work affecting safety, the environment, energy, or conformity to policies and service requirements;
- s** b. establish and maintain documented procedures for identifying any training which may be required in support of the management system and verify that such training is provided for all personnel concerned;
- qh** c. evaluate the effectiveness of the training provided or other actions taken to achieve the necessary competence; and
- q** d. make personnel aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives

s 4.7.1.3 The Company should verify that all personnel involved in the Company’s management system have an adequate understanding of relevant rules, regulations, codes, and guidelines; and are aware of:

- En** a. *“the importance of conformity with the energy policy, procedures and the requirements of the EnMS;*
- b. *“their roles, responsibilities and authorities in achieving the requirements of the EnMS;*
- c. *“the benefits of improved energy performance;*
- d. *“the impact, actual or potential, with respect to energy use and consumption, of their activities and how their activities and behavior contribute to the achievement of energy objectives and targets, and the potential consequences of departure from specified procedures” (ISO50001:2011 4.5.2).*

s 4.7.1.4 Appropriate records of education, training, skills, and experience should be maintained.

h 4.7.1.5 *“Training procedures shall take into account differing levels of responsibility, ability, language skills, literacy and risk”. (OHSAS 18001:2007 4.4.2)*

eh 4.7.2 Management System Awareness Training

The Company should 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:

- eh** a. the importance of conformance with the management system policies and procedures and with requirements of the management system;
- e** b. the significant impacts, actual or potential, of their work activities;
- eh** c. the benefits of improved personal performance, safe operation, and preservation of the environment,

- eh d. their roles and responsibilities in achieving conformance with requirements of the management system policies, procedures and requirements;
 - eh e. their roles and responsibilities in regard to emergency preparedness and response requirements; and
 - eh f. the potential consequences of departure from specified operating procedures and requirements.
- 4.7.3 Familiarization Training
- s *“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)*
- 4.8 Communication, Participation, and Consultation**
- qe 4.8.1 *“Top management shall ensure that appropriate communication processes are established within the Company and that communication takes place regarding the effectiveness of the management system”. (ISO 9001:2008 5.5.3)*
- eh 4.8.2 Regarding its health and safety hazards, environmental aspects, **energy performance** and **En** the management system, the Company should establish, implement, and maintain documented procedures for:
- eh a. internal communication among the various levels and functions within the Company;
 - eh b. receiving, documenting, and responding to relevant communication from external interested parties.
 - h c. communication with contractors and other visitors to the workplace.
- e 4.8.3 The Company *“shall decide whether to communicate externally about its significant environmental aspects and/or energy policy and performance and shall document its decision. If the decision is to communicate, the organization shall establish and implement a method(s) for this external communication”. (ISO 14001:2004 4.4.3, ISO 50001:2011 4.5.3)*
- h 4.8.4 The Company should establish, implement, and maintain procedure(s) so that pertinent OH&S information is communicated to and from employees and other interested parties. Employee participation and consultation arrangements shall be documented and interested parties informed. Employees shall be:
- a. appropriately involved in the hazard identification, risk assessments, determination of controls, **and development and review of OH&S policies and objectives;**
 - b. appropriately involved in incident investigation;
 - c. consulted where there are any changes that affect workplace health and safety. This includes consultation with contractors where there are changes that affect their OH&S;
 - d. represented on health and safety matters; and
 - e. informed as to who is their employee OH&S representative and specified management appointee; and

- s** 4.8.5 The company shall establish and implement a process by which any person working for, or on behalf of, the organization can make comments or suggest improvements to the management system(s).
- h** 4.8.6 The Company shall consult, when appropriate, with relevant external interested parties about pertinent OH&S issues.
- 4.9 Control of Documents**
- s** 4.9.1 **Management System** documentation should consist of:
- s** a. established, implemented, and documented procedures for:
- s** 1. document and data control, including documents of external origin;
- s** 2. internal audits; and
- s** 3. corrective and preventive action;
- s** 4. non-conformances, hazardous occurrences and near misses;
- q** 5. control of quality records; (See 5.6)
- q** b. documented quality policy and quality objectives;
- q** c. a quality manual (this manual may be incorporated into an existing top tier manual);
- q** d. documents required for effective planning, operation and control of its processes; and
- q** e. records required to demonstrate compliance with requirements and of effective operation of the management system. (See 5.6)
- Note:* The documentation can be in any form or type of medium.
- En** 4.9.2 **Energy Management System Documentation** shall describe the core elements of the EnMS and their interaction and shall include:
- a. “the scope and boundaries of the EnMS*
- b. “the energy policy;*
- c. “the energy objectives, targets, and action plans;*
- d. “the documents, including records, required by this Guide;*
- e. “other documents determined by the organization to be necessary” (ISO 50001:2011 4.5.3).*
- s** 4.9.3 The Company should establish, implement, and maintain documented procedures to control all documents and data relevant to the management system so that:
- a. valid documents can be located and are available at points of use;
- b. new and revised documents and data are reviewed and approved, or updated and re-approved for adequacy by authorized personnel prior to issue;

- c. documents of external origin determined by the Company to be necessary for planning and operation of the management system are to be identified and their distribution controlled;
- d. each ship carries on board external and internal documents relevant to that ship;
- e. invalid or obsolete documents are promptly removed;
- f. any invalid or obsolete documents retained for any purposes are suitably identified and prevented from unintended use.
- g. periodically review and update documents as necessary

s 4.9.4 The Company should verify that changes and current revision status of documents are identified

e 4.9.5 Documented procedures and responsibility for the creation and modification of the various types of documents should be assigned.

s 4.9.6 Documentation should remain legible and readily identifiable, maintained in an orderly manner and indicate the date of revision and retained for a period established by the Company.

4.10 Operational Control

s 4.10.1 The Company should establish procedures, plans and instructions, including checklists as appropriate, for key shore-based and shipboard operations and activities concerning the safety of the ship, prevention of pollution, preservation of the environment, **quality and energy performance** in support of the Company policy(s), objectives, **targets and action plans**. The various tasks should be defined and assigned to qualified personnel.

s 4.10.2 The Company should establish, implement, and maintain documented instructions and procedures to promote safe operation of ships and protection of the environment in compliance with relevant international and Flag State legislation.

s 4.10.3 The Company should identify those operations and activities that are associated with identified hazards **and significant energy uses** where control measures need to be applied to manage the risk(s). This shall include management of change. The Company shall plan these operations and activities in order that they are carried out under controlled conditions. The output of this planning shall be in the form suitable for the Company's method of operations. Controlled conditions include:

s a. compliance with mandatory rules, regulations, and codes;

s b. established and maintained documented procedures/work instructions to control situations where their absence could lead to deviation from the policies, objectives, and targets;

s c. defined tasks assigned to properly qualified personnel;

s d. the Company's permit to work systems, which shall include measures to verify that the condition of spaces and systems as safe or not safe for work is readily identifiable. These measures shall also include safeguards so that work does not proceed unless safe conditions exist. The condition of spaces or systems being worked on shall be updated as appropriate throughout the course of the work;

e e. operations associated with identified significant environmental aspects consistent with its environmental policy, objectives and targets;

- e f. established, implemented, and maintained documented procedures related to the identified significant environmental aspects of goods and services used by the Company and communicating applicable procedures and requirements to suppliers, including subcontractors;
- h g. controls related to purchased goods, equipment, and services.
- h h. controls related to contractors and other visitors to the workplace.
- q i. the availability of information that describes the characteristics including quality objectives and requirements of the service;
- q j. the availability of suitable monitoring and measuring equipment;
- q k. implementation of monitoring and measurement;
- q l. use of suitable equipment and a suitable working environment;
- q m. validation of approved processes and equipment, as appropriate, and required records; (See 5.6)
- q n. *“the implementation of service release, delivery and post delivery activities”;* (ISO 9001:2008 7.5.1.f)
- q o. records needed to provide evidence that processes are fulfilling requirements; (See 5.6)
- hqe p. defined and documented operating criteria.
- En q. *“establishing and setting criteria for the effective operation and maintenance of significant energy uses, where their absence could lead to a significant deviation from effective energy performance;*
- En r. *“operating and maintaining facilities, processes, systems and equipment, in accordance with operational criteria;*
- En s. *“appropriate communication of the operational controls to personnel working for, or behalf of, the organization.” (ISO50001:2011 4.5.5)*
- q 4.10.4 The Company *“shall validate any processes for service provision where the resulting output cannot be verified by subsequent monitoring and measurement and, as a consequence, deficiencies become apparent only after the service has been delivered”.* (ISO 9001:2008 7.5.2)
- q 4.10.5 *“Validation shall demonstrate the ability of these processes to achieve planned results. The organization shall establish arrangements for these processes including, as applicable,*
 - a. *“approval of equipment and qualification of personnel,*
 - b. *“use of specific methods and procedures, and*
 - c. *“revalidation.”. (ISO 9001:2008 7.5.2)*

q

4.11 Purchasing

4.11.1 General

The Company should verify that purchased product or service conforms to specified purchase requirements.

4.11.2 Evaluation of Suppliers

4.11.2.1 The Company should:

- a. establish criteria for selection, evaluation, and re-evaluation;
- b. evaluate and select suppliers on the basis of their ability to meet the Company's requirements;
- c. maintain records of the results of evaluations and actions arising thereof. (See 5.6)

4.11.2.2 The Company should define the type and extent of control to be exercised over suppliers. These controls shall be appropriate for the type of materials or service purchased and its actual or potential impact on the Company's delivered service.

4.11.3 Purchasing Information

4.11.3.1 Purchasing information should clearly describe the material or service to be purchased, including where appropriate:

- a. the name, type, class, style, grade, model, or other appropriate identification;
- b. pertinent issues of specifications, drawings, processes and inspection requirements, and other technical data;
- c. requirements for approval or qualification of equipment, materials, procedures, or services;
- d. the qualifications and certifications of persons providing a service;
- e. requirements for conformance with applicable occupational health, safety, environmental, or quality management system requirements including title, number, and issue

4.11.3.2 The Company should review and approve purchasing documents for adequacy of specifications of materials or service prior to release to the supplier

En

4.11.4 Procurement of Energy Services, Products, Equipment and Energy (ISO 50001:2011 4.5.7)

4.11.4.1 *“When procuring energy services, products and equipment that have, or can have, an impact on significant energy use, the organization shall inform suppliers that procurement is partly evaluated on the basis of energy performance.*

4.11.4.2 *“The organization shall establish and implement the criteria for assessing energy use, consumption and efficiency 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 organization's energy performance.*

4.11.4.3 *“The organization shall define and document energy purchasing specifications, as applicable, for effective energy use.”*

- q** 4.11.5 Verification of Purchased Materials or Service
- q** 4.11.5.1 The Company shall establish and implement the inspection or other activities necessary for verifying that purchased materials or service meets specified purchase requirements.
- q** 4.11.5.2 Where the Company proposes to verify purchased materials or services at the supplier's premises, the Company shall specify the verification arrangements and the method of materials or service release in the purchasing documents.
- 4.12 Customer's Property**
- q** 4.12.1 The Company should exercise care with customer's property while it is under the Company's control or being used by it. The Company is responsible for identifying, verifying, protecting, and safeguarding customer's property provided for incorporation or use in the product or provided service. If any such property is lost, damaged, or otherwise unsuitable for use, the Company shall report this to the customer and maintain records. (See 5.6)
- Note: Customer's property can include intellectual property*
- 4.13 Preservation of Service**
- q** 4.13.1 The Company should preserve the service during the process of management and service delivery in order to maintain conformity to requirements. As applicable, preservation shall include identification, handling, packaging, storage, and protection. Preservation shall also apply to the constituent parts of the service.
- 4.14 Traceability**
- q** 4.14.1 Where appropriate or as required, and in accordance with custom and practice, the Company should identify, record, and report the progress of the voyage and charter at key points from beginning through completion and through appropriate stages of monitoring and measurement requirements. (See 5.6) This should include service status and traceability information such as ship's position, estimated time of arrival, and cargo load port, discharge port, and location and quantity of cargo aboard ship.
- s** **4.15 Maintenance of the Ship and Equipment**
- 4.15.1 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 Inspections
- "In meeting these requirements, the Company should ensure that: (ISM 10.2)*
- a. *"inspections are held at appropriate intervals;*
 - b. *"any non-conformity is reported, with its possible cause, if known;*
 - c. *"appropriate corrective action is taken; and*
 - d. *"records of these activities are maintained".*

4.15.3 Critical Equipment and Systems

- s** 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)*
- 4.15.3.3 Where inspection and test equipment is used to measure maintenance criteria, the equipment shall be controlled in accordance with 5.1.4 “Control of Monitoring and Measuring Equipment (MME’s)”.

4.16 Emergency Preparedness and Response

- s** 4.16.1 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)

4.16.2 Emergency Plans

- s** 4.16.2.1 The Company should identify potential emergency situations and potential accidents that can have an impact on health, safety, quality, and environment and establish procedures how it will respond to them, both shipboard and shore-based.
- s** 4.16.2.2 The Company should establish, implement, and maintain documented plans and procedures to **respond to potential and actual** emergency situations **and accidents**.
- h** 4.16.2.3 In planning its emergency response the Company should take account of the needs of relevant interested parties, e.g., emergency services and port facilities
- eh** 4.16.2.4 The Company should respond to actual emergency situations and accidents and prevent or mitigate associated adverse OH&S consequences and/or environmental impacts.

4.16.3 Drills and Exercises

- s** 4.16.3.1 The Company should establish a program of drills and exercises to prepare for emergency situations. The Company should periodically test such procedures where practicable.
- s** 4.16.3.2 The Company should periodically review and, where necessary, revise its emergency preparedness and response procedures, in particular, after periodical testing and after the occurrence of accidents or emergency situations.
- h** 4.16.3.3 When conducting drills and exercises, the Company should involve relevant interested parties where appropriate.

En 4.17 Design

“The organization shall consider energy performance improvement opportunities and operational control in the design of new, modified and renovated facilities, equipment, systems and processes that can have a significant impact on its energy performance.

“The results of the energy performance evaluation shall be incorporated where appropriate into the specification, design and procurement activities of the relevant project(s).

“The results of the design activity shall be recorded.” (ISO 50001:2011 4.5.6).

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	5	MEASUREMENT, ANALYSIS, AND IMPROVEMENT
	5.1	Monitoring and Measurement
	5.1.1	General
En		<i>“An energy management plan, appropriate to the size and complexity of the organization and its monitoring and measuring equipment shall be defined and implemented.” (ISO 50001:2011 4.6.1)</i>
q		<i>“The Company should apply suitable methods for monitoring and measurement of the quality management system processes. These methods should demonstrate the ability of the processes to achieve planned results. When the planned results are not achieved, correction and corrective action should be taken, as appropriate.” (ISO 9001:2008, 8.2.3)</i>
s		The Company should establish, implement, and maintain documented procedures for monitoring, measuring and analyzing, at planned intervals , the key characteristics of its operations and activities that can have a significant impact on occupational health, safety, quality, environment and energy performance . The procedure(s) should include:
e	a.	applicable operational controls;
e	b.	conformity with the Company’s safety and environmental objectives and targets;
qh	c.	recording of data and results of monitoring and measurement to facilitate subsequent corrective and preventive action analysis. Corrections should be applied as soon as deficiencies become apparent to maintain integrity of the service being delivered; (See 5.6)
q	d.	objectives for quality;
q	e.	continual improvement of the quality management system;
q	f.	demonstration of the ability of service to achieve planned results;
qeh	g.	verifying that monitoring equipment is calibrated and maintained and records of this process (See 5.6) should be retained according to the Company’s procedures; (See 5.1.4)
En		
h	h.	<i>“both qualitative and quantitative measures, appropriate to the needs of the Company”; (OHSAS 18001:2007 4.5.1.a)</i>
h	i.	<i>“monitoring of the extent to which the Company’s OH&S objectives are met”; (OHSAS 18001:2007 4.5.1.b)</i>

- h j. “monitoring the effectiveness of controls (for health as well as safety)”;
(OHSAS 18001:2007 4.5.1.c)
 - h k. “proactive measures of performance that monitor conformance with the OH&S program, controls and operational criteria” and applicable legislation and regulatory requirements.
(OHSAS 18001:2007 4.5.1.d)
 - h l. “reactive measures of performance that monitor ill health, incidents (including accidents, near-misses, etc.) and other historical evidence of deficient OH&S performance”.
(OHSAS 18001:2007 4.5.1.e)
 - En m. “significant energy uses and other outputs of the energy review;”
(ISO 50001:2011 4.6.1.a)
 - En n. “the relevant variables related to significant energy uses;” (ISO 50001:2011 4.6.1.b)
 - En o. “EnPis;” (ISO 50001:2011 4.6.1.c)
 - En p. “the effectiveness of the action plans in achieving objectives and targets;”
(ISO 50001:2011 4.6.1.d)
 - En q. “evaluation of actual versus expected energy consumption.” (ISO 50001:2011 4.6.1.e)
- s 5.1.2 Monitoring and Measurement
- Monitoring and measurement of service characteristics should be carried out at appropriate stages of service or cargo delivery as determined by the Company, customer or charterer. Evidence of conformity with the acceptance criteria should be maintained. The discharge of cargo should not be performed until planned arrangements have been completed and/or accepted by the Customer or charterer. Records of these activities should be maintained. (See 5.6)
- q 5.1.3 Inspection and Test Records
- The Company should maintain records that provide evidence of the compliance with contractual requirements related to the loading, carriage, and discharge of the cargo in accordance with customer’s instructions. These records should indicate the person(s) authorizing release of cargo or the completion of services by personnel (and as required by customer) approving changed or waived requirements. (See 5.6)
- q 5.1.4 Control of Monitoring and Measuring Equipment (MMEs)
- 5.1.4.1 The Company “shall determine the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of service to determined requirements”. (ISO 9001:2008 7.6)
- hqe En 5.1.4.2 The Company should verify that calibrated or verified monitoring and measurement equipment is used and maintained and shall retain associated records. (see 5.6) Monitoring and measuring equipment (MMEs) shall be used in a manner so that the measurement uncertainty is known and is consistent with the required monitoring and measurement requirements.
- hqe 5.1.4.3 The Company should define and implement effective measuring and monitoring processes including methods and devices for verification and validation of the process to the satisfaction of customers and other interested parties. These processes could include surveys and simulations as well.

hqe En	<p>5.1.4.4 Where equipment or devices are used for verification and validation the Company should:</p> <ul style="list-style-type: none">a. identify MMEs with a suitable indicator or identification record to show calibration status;b. calibrate or verify (or both) MMEs at prescribed intervals, or prior to use, against certified equipment having a known relationship to an internationally or nationally recognized standard. Where no such standards exist, the basis used for calibration or verification shall be documented;c. define the process for calibration of MMEs, including the equipment type, unique identification, frequency of checks, check method, acceptance criteria and the action to be taken when the results are unsatisfactory;d. verify that the handling, maintenance, and storage of MMEs is to protect them from damage and deterioration;e. verify that the environmental conditions are suitable for the calibration, inspections, measurements, and tests being carried out;f. maintain records of the results of calibration and verification; (See 5.6);g. safeguard MMEs from adjustments which would invalidate the calibration;h. assess and record the validity of previous results when MMEs are found to be out of calibration and take appropriate action on the equipment and product or service affected;i. verify the ability of computer software to satisfy the intended application shall be confirmed prior to use and reconfirmed as necessary; andj. identify the need for MMEs to be adjusted or re-adjusted as necessary prior to use.
	<p>5.1.5 Analysis of Measurements and Improvement</p>
s	<p>5.1.5.1 The Company should continually improve the effectiveness of the management system through the use of associated policies, quality objectives, audit results, analysis of data, corrective and preventive actions and management review. The company should respond to any significant deviations in safety, health, environment, quality, and energy performance.</p>
s	<p>5.1.5.2 The Company should plan and implement the monitoring, measuring, analysis, and subsequent improvement processes needed to:</p> <ul style="list-style-type: none">a. demonstrate conformance of the service requirements;b. promote conformity with the management system;c. continually improve the system for managing occupational health, safety, quality, energy performance, and the protection of the environment;d. demonstrate the suitability and effectiveness of the management system; ande. evaluate where continual improvement of the effectiveness of the management system can be made.
q	<p>5.1.5.3 <i>“This shall include determination of applicable methods, including statistical techniques, monitoring and measurement and the extent of their use”. (ISO 9001:2008 8.1/8.4)</i></p>

- q 5.1.5.4 This should include data generated as a result of monitoring and measurement and from relevant sources.
- q 5.1.5.5 *“The analysis of data shall provide information relating to:*
- a. *“customer satisfaction;*
 - b. *“conformity to service requirements;*
 - c. *“characteristics and trend of processes and products, including opportunities for preventive action; and*
 - d. *“suppliers”. (ISO 9001:2008 8.4.)*
- q **5.2 Control of Nonconforming Materials, Equipment, or Cargo Spaces**
- 5.2.1 The Company should establish and maintain documented procedures so that unsuitable materials, equipment, or cargo spaces are identified and prevented from unintended use. Control should include positive measures to provide for identification, documentation, evaluation, segregation (where practical) and notification of functions concerned.
- 5.2.2 Appropriate corrective action should be taken for cargo spaces with conditions that do not conform to contractual requirements. **Such** cargo spaces should not be loaded without prior consent of the customer. The customer is to be advised of the condition of the cargo space as a basis upon which to accept the condition with or without concession. Condition and concessions of the cargo spaces should be recorded. (See 5.6)
- 5.3 Nonconformity, Corrective and Preventive Action**
- s 5.3.1 The management system should include established and maintained documented procedures so that nonconformities, including accidents and hazardous situations, are reported to the Company, investigated, and analyzed with the objective of improving safety, pollution prevention, and continual improvement of the management system through the use of policies and objectives; audit results; analysis of data; corrective and preventive action; and management reviews.
- s 5.3.2 The Company should establish, implement, and maintain a procedure(s) for dealing with actual and potential nonconformity(ies) and for taking corrective action and preventive action. The procedure(s) should define requirements, including responsibility and authority, for:
- s a. identifying, **reviewing** and correcting nonconformity(ies) and taking action(s) to mitigate their environmental impacts and/or OH&S consequences;
 - s b. investigating nonconformity(ies) (including customer complaints), determining their cause(s), and taking actions in order to prevent their recurrence;
 - s c. evaluating the need for action(s) to prevent nonconformity(ies) and implementing appropriate actions designed to avoid their occurrence;
 - s d. recording the results of corrective action(s) and preventive action(s) taken;
 - s e. reviewing the effectiveness of corrective action(s) and preventive action(s) taken;
 - h f. communicating the results of corrective and preventive actions taken; and

- h g. reviewing proposed corrective and preventive actions through the risk assessment process prior to implementation where corrective and preventive action identifies a new or changed hazard or the need for new or changed controls.
- s 5.3.3 Any corrective or preventive action taken to eliminate the causes of actual and potential nonconformity(ies) shall be appropriate to the magnitude of problems and commensurate with the OH&S risk and environmental impacts encountered.
- s 5.3.4 The Company should make necessary changes arising from corrective and preventive action to the management system documentation.
- 5.4 Control of Nonconforming Service**
- 5.4.1 The Company should establish and maintain documented procedures that define the process for identifying and controlling nonconforming service to prevent unintended delivery. Responsibility and authority for dealing with nonconforming product/service should be defined. The Company should deal with the nonconforming service through one or more of the following methods:
 - s a. taking necessary remedial action with regard to the nonconformity to mitigate impacts and eliminate the nonconformity;
 - s b. initiating, implementing, and completing corrective action and preventive action; and
 - q c. authorizing its release or acceptance under concession by a relevant authority and, where applicable, the Customer.
- q 5.4.2 *“Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, shall be maintained”. (See 5.6) (ISO 9001:2008 8.3)*
- q 5.4.3 *“When nonconforming product or service is corrected it shall be subject to re-verification to demonstrate conformity to the requirements”. (ISO 9001:2008 8.3)*
- q 5.4.4 When nonconforming product or service is detected after delivery or use has started, the Company shall take action appropriate to the effects, or potential effects, of the nonconformity.
- 5.5 Incident Investigation**
- s 5.5.1 The Company should establish, implement, and maintain a procedure(s) to record, investigate and analyze incidents in order to:
 - a. determine underlying deficiencies and other factors that may be causing or contributing to the occurrence of incidents;
 - b. identify the need for corrective action;
 - c. identify opportunities for preventive action and continual improvement;
 - d. communicate the results of such investigation
- h 5.5.2 The investigations should be performed in a timely manner. The results of the investigations are to be documented and maintained.

s **5.6 Control of Records**

5.6.1 The Company should establish, implement, and maintain procedures for the identification, storage, protection, retrieval, and disposal of management system records. These records should include, but not be limited to, training records, records of internal and external audits, records of reviews, and any other pertinent records necessary to demonstrate conformity to the requirements of the management system and of this Guide and the results achieved.

Note: Record requirements in this Guide are identified with “(See 5.6)” notation within the applicable clause or section.

5.6.2 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.

5.6.3 A copy of the Safety Management Certificate (SMC) issued to the vessel should be retained ashore.

5.6.4 *“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”. (ISM 3.1)*

5.6.5 Records should be:

- a. legible, readily identifiable, and traceable to the pertinent process, activity, or service;
- b. stored and maintained in such a way that they remain legible, readily identifiable and retrievable, and protected against damage, deterioration, or loss; and
- c. retention times for records should be established and documented.

s **5.7 Internal Audit**

5.7.1 The Company should conduct internal audits of the management system at planned intervals in order to determine and verify whether:

- a. the management system conforms to the planned arrangements and the requirements of this Guide;
- b. the management system is being properly implemented, maintained, and is effective in meeting the Company’s policies and objectives **and in improving energy performance, as appropriate.**

En *c. “conforms to the energy objectives and targets established” (ISO 50001:2011 4.6.3)*

s 5.7.2 Internal audits should be scheduled to cover all pertinent areas of the management system ashore and onboard its vessels every 12 months or less. The internal audit program should be planned, established, implemented, and maintained, taking into consideration importance of the operations concerned, results of risk assessments of Company’s activities, and the results of previous audits.

s 5.7.3 **Documented** internal audit procedures should be established, implemented, and maintained that address:

- a. scheduling of internal audits;
- b. the determination of audit criteria, scope, frequency, method, and objectives;

- c. the recording and reporting of results of audits to management;
 - d. implementation of corrective and preventive action;
 - e. follow-up activities shall include the verification of the actions taken and the reporting of verification results;
 - f. maintenance of records; (See 5.6)
 - g. responsibilities, competencies, and requirements for planning and conducting audits, reporting results, and retaining associated records;
- S** 5.7.4 The selection of auditors and conduct of audit should ensure objectivity and impartiality of the audit process. Auditors should not audit their own work.
REF. 4.6.3
- S** 5.7.5 *“The results of the internal audits should be brought to the attention of all personnel having responsibility for the activities audited.” (ISM 12.5)* Records of the audits and their results should be maintained **and reported to top management**.
- S** 5.7.6 The management personnel responsible for the area involved should take timely corrective action on deficiencies found and their causes.

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6 MANAGEMENT REVIEW

6.1 The Company should develop, implement, and maintain procedures for management reviews.

6.2 The Company's top management should at planned intervals, not to exceed one year, review the **HSQE&En policies and** management system(s) in accordance with documented procedures. This in order to determine and evaluate its continuing suitability, adequacy, efficiency, effectiveness, assessing opportunities for improvement and the need for changes to the management system, including stated policies and objectives and targets.

6.3 Input to management review should include:

- a. results of audits and evaluations of compliance with applicable legal requirements and with other requirements to which the Company subscribes;
- b. results of participation and consultation;
- c. communication(s) from external interested parties, including **customer feedback and** complaints;
- d. **review of the safety, quality, environmental, energy (including EnPIs) and/or OH&S** performance of the Company;
- e. the extent to which objectives and targets have been met;
- f. status of incident investigations, corrective and preventive actions;
- g. follow-up actions from previous management reviews;
- h. changing circumstances in legal and other requirements related to its operations; and
- i. recommendations for improvement.
- j. **Review of HSQEEn policy(s)**
- k. **projected energy performance for the following period**
- l. **information on process performance and service delivery**

6.4 The output from management review should include any decisions and actions related to possible changes to policy, objectives and targets, **key performance indicators**, resource **allocation**, performance, other elements of the management system and consistent with the commitment to continual improvement.

Section 6 Management Review

- s** | **6.5** The results of the reviews should be brought to the attention of all personnel having responsibility in the area involved.
- s** | **6.6** If corrective action is identified during the management review, the management personnel responsible for the area involved should take timely corrective action on deficiencies found.
- s** | **6.7** Records of management review shall be maintained.

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APPENDIX 1 CORRESPONDENCE BETWEEN ISM CODE, ISO 9001:2008 & ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011 AND ABS GUIDE FOR MARINE HEALTH, SAFETY, QUALITY, ENVIRONMENTAL AND ENERGY MANAGEMENT

	ABS HSQEEEn Guide, 2012	ISM Code	ISO 9001: 2008	ISO 14001: 2004	OHSAS 18001: 2007	ISO 50001: 2011
1	General					
1.1	Scope and Application	1.3	1.2	1	1	1
1.2	Certification	13 15				
1.3	Definitions	1.1	3	3	3	3
2	Policy					
2.1	General Requirements	2.2	4.1	4.1	4.1	4.1
2.2	Occupational Health, Safety, Environmental and Energy Policy	1.2 1.4 2.1	5.1 5.3	4.2	4.2	4.3
2.3	Quality Policy		5.3			
3	Planning					
3.1	Environmental Aspects			4.3		
3.2	Energy Planning					4.4
3.3	Hazard Identification, Risk Assessment, and Risk Control				4.3.1	
3.4	Legal and Other Requirements		1.2.3 5.2 7.2.1	4.3.2 4.5.2	4.3.2 4.5.2	4.4.2 4.6.2
3.5	Energy Review					4.4.3
3.6	Energy Baseline					4.4.4
3.7	Energy Performance Indicators					4.4.5
3.8	Health, Safety, Environmental and Energy Objectives and Targets	1.2.2 1.2.3	5.4.1 8.5.1	4.3.3	4.3.3	4.4.6
3.9	Quality Planning and Objectives		5.4.1 7.1			
3.10	Customer Focus		5.2 7.2			

Appendix 1 Correspondence Between ISM Code, ISO 9001:2008 & ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011 and the ABS HSQEEEn Guide

	ABS HSQEEEn Guide, 2012	ISM Code	ISO 9001: 2008	ISO 14001: 2004	OHSAS 18001: 2007	ISO 50001: 2011
3.11	Management Programs	1.4.3 3.2 11.3	4.1 5.5.1 5.1	4.1 4.3.3 4.4.1	4.3.3	4.4.6
3.12	Management System Documentation	1.4 3.2 11.3	4.2.1 4.2.2	4.4.4 4.4.5	4.4.4 4.4.5	4.5.4
4	Implementation and Operation					
4.1	Resources, Roles, Responsibility, Accountability, and Authority	3.3	5.1 5.5.1 5.5.2 6.1 6.2	4.4.1	4.4.1	4.5.1
4.2	Infrastructure		6.3			
4.3	Work Environment		6.4			
4.4	Designated Person(s)/ Quality Management Representative(s)/ Environmental Management Representative(s)/ Energy Management Representative(s)/ OH&S Management Representative	3.3 4	5.5.2	4.4.1	4.4.1	
4.5	Master's Responsibility and Authority	5.1 5.2		4.4.1 4.4.2	4.4.1 4.4.2	
4.6	Shipboard Personnel	6.1 6.2 6.3 6.6 6.7		4.4.2	4.4.1 4.4.2	
4.7	Competence, Training, and Awareness	6.3 6.4 6.5	6.2.1 6.2.2	4.4.2	4.4.2	4.5.2
4.8	Communication, Participation, and Consultation		5.5.3 7.2.3	4.4.3	4.4.3	4.5.3
4.9	Control of Documents	11	4.2.3	4.4.5	4.4.5	4.5.4
4.10	Operational Control	1.2.3 1.4.2 7	7.1 7.2 7.4 7.5.1 7.5.2	4.4.6		4.5.5
4.11	Purchasing		7.4			4.5.7
4.12	Customer's Property		7.5.4			
4.13	Preservation of Service		7.5.5			
4.14	Traceability		7.5.3			
4.15	Maintenance of the Ship and Equipment	10.1 10.2 10.3 10.4	7.6	4.4.6	4.4.6	
4.16	Emergency Preparedness and Response	1.4.5 8.1 8.2 8.3	8.3	4.4.7	4.4.7	
4.17	Design					4.5.6

Appendix 1 Correspondence Between ISM Code, ISO 9001:2008 & ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011 and the ABS HSQEEEn Guide

	ABS HSQEEEn Guide, 2012	ISM Code	ISO 9001: 2008	ISO 14001: 2004	OHSAS 18001: 2007	ISO 50001: 2011
5	Measurement, Analysis, and Improvement					
5.1	Monitoring and Measurement		8.2.3	4.5	4.5	4.6.1
5.2	Control of Nonconforming Materials, Equipment, or Cargo Spaces		8.3	4.5.1	4.5.1	
5.3	Nonconformity, Corrective and Preventive Action	1.4 9.1 9.2	8.5.2 8.5.3	4.5.3	4.5.3	4.6.4
5.4	Control of Nonconforming Service		8.3			
5.5	Incident Investigation				4.5.3	
5.6	Control of Records	3.1 10 13	4.2.4	4.5.4	4.5.4	4.6.5
5.7	Internal Audit	12.1 12.3 12.4 12.5	8.2.2	4.5.5	4.5.5	4.6.3
6	Management Review					
6.1	Development, Implementation and Procedures for Management Review		5.6.1	4.6	4.6	4.7
6.2	Review and Evaluation	12.2				4.7.1
6.3	Review Inputs		5.6.2	4.6	4.6	4.7.2
6.4	Review Outputs		5.6.3	4.6	4.6	4.7.3
6.5	Review Communication	12.5	5.5.3	4.6	4.6	
6.6	Corrective Actions Arising from Review	12.6				
6.7	Review Records		5.6.1	4.6	4.6	4.7.1

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**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.”*



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APPENDIX 3 TERMS AND CONDITIONS FOR THE USE OF “ABS SMS CERTIFIED” AND “ABS HSQEE_n CERTIFIED” LOGOS

- A3.1** When a Company is successful in obtaining (and maintaining) its ISM and/or HSQEE_n certification, the corresponding ABS HSQEE_n/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.